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Susan C. Reeves and
May Dudley

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October 1969
Foreword

New Guinea research: the need for reciprocity*

Since the second world war, the batteries and battalions of armed forces which descended on New Guinea between 1941 and 1945 have been replaced by batteries and battalions of researchers. The value of their studies, however, is mainly felt on a macro-scale - the scale of governments and academic institutions. Relatively little comes home to those people who have often been most directly concerned - the village informants. They may, unknown to themselves, receive some generalised benefits; but since researchers make their reputations and careers out of the informational raw material these people provide, they, like the Bougainvilleans, might naturally expect rather more in the way of locally usable royalties.

This point was most explicitly made at an East-West Center conference in which one Asian delegate divided foreign researchers into 'miners', digging their spoil and making off with it, and 'planters', who ensure that research will be as fully and usefully available as possible in the researched country, so that some at least of the profits of processing come back. Even in Southeast Asia, the invaders have such advantages in finance and in their general conditions of work at home and abroad (not to mention their training) that they tend to take the cream of research topics to produce the more spectacular results, and to throw local workers into the shade. The same is true in Latin America and, in the nature of the case, even more marked in the Pacific. Since, clearly, the value of research depends very much on retaining full confidence among the researchees, these increasingly voiced reactions, sometimes amounting to resentment, are danger signals; and researchers must take such avoiding action as possible, and as soon as possible.

This is, of course, most difficult at the unsophisticated local level; yet something can and should be done here. As a matter of principle, it should be incumbent on researchers to make available articles summarising their work and its local significance, in simple

* This foreword is a revised version of an article on Pacific research which appeared in ANU News, November 1969.
English (better, if possible, with Pidgin or vernacular versions), for local newspapers, radio stations, and schools. Even a few duplicated copies circulated among contacts would 'show willing' and, if carefully written - neither talking down nor 'over their heads' - would be not only a desirable courtesy, but of much value as showing that these strange activities have a meaning.

The use of local radio, where available, could be of very great value in this connection. Most local broadcasting agencies would be only too glad of contributions which are, as it were, at once local and 'from outside'; and a broadcast at the beginning explaining the object of the research, stressing that the researcher is there to learn himself, and appealing for help in this task, could be invaluable. And surely a farewell broadcast, giving the gist of findings and saying Thank you, should be obligatory.

Beyond this is the admitted obligation to make some feed-back of published results or theses. While there are obviously financial restrictions on fully comprehensive distribution, much work - perhaps generally in shortened form - should go to others than administrators, missionaries, and commercial people who may have helped. Recipients, even in these groups, often should not be confined to those immediately interested in the locality or even the territory concerned. Should shortened versions be prepared (as would often be preferable), it might sometimes be desirable to cut down on local detail, which the locals could take for granted, and expand on matters of more general bearing, for example lessons in marketing economics drawn from the local experience. Even if not all is understood, all will be appreciated.

It should also be regarded as standard practice that whenever and wherever possible researchers should be willing to devote some of their time to local educational institutions for lectures, seminars, or general consultations. This need not invariably be closely tied to the research project or specialism of the worker. The reward surely comes not only in creating good public relations, but in a feeling of participation.

It is clearly desirable to do all that can be done to involve local people in research, not only as passive informants but as active enquirers. In some places and on some themes very little, if anything, can be done in this way; but with increasing educational standards, the possibilities of getting good local research assistants are probably greater than is often realised. Senior school students, teachers in vacations, MA students in local universities, could often very soon get the general point of enquiry, and would not only themselves benefit from the in-service training so provided, but often act as most useful lubricants and indeed suggest new lines of enquiry and unsuspected inter-relationships. It goes without saying that where this is done, full acknowledgment should be given. At the Thai Hill Tribes Research Center it is required that foreign researchers should have an indigenous trainee-assistant. In Thailand, also, at least some written report is
required before the researcher leaves, and failure to provide it might prejudice not only later visits by the person concerned, but possibly by other people from his institution.

Even in the suggestions already made, it would be necessary to tread delicately: well-meant efforts at feed-back, at helping local education, and even at involving local trainee-assistants, could easily slide over into patronage. To make research really reciprocal, it would seem desirable to bring people from research areas back to work in overseas universities. There are quite a few indigenous people in administrative or educational service who could benefit greatly from a few months working on some short-term research topic concerned with their own countries; research which at home they would not have the leisure to carry out, nor perhaps wide enough sources of information, and least of all the research atmosphere.

More could be done to stress and to explain the value of work already done. This is as a rule clear enough to administrators and educators, but it does need bringing home more generally, and there will often be opportunities for this in informal discussion with local leaders, literate or not. Simplicity is the key-note, but this does not mean writing-down or talking-down; it is rather an exercise in the difficult art of translation.

These suggestions are put forward as matters worthy of serious discussion in the agenda of research strategy and tactics in a period of rapid change of attitudes. Misunderstandings and resentments are perhaps only incipient in the Pacific. Nevertheless, it seems highly desirable to give some earnest advance consideration to these emerging problems, even in researchers' own interests - the interests of their image, on which the smooth flow of vital information in turn depends. Beyond this, there is surely a moral obligation to avoid anything which might look like an exploitative cultural imperialism; more positively, to give some tangible and particular returns for the raw material from which researchers draw their own livings, and much of the enjoyment of their lives.

R.G. Crocombe
and O.H.K. Spate
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Chapter 1

Introduction

This survey is an amalgamation of the four annual surveys of social science field research compiled in the New Guinea Research Unit of the Australian National University by Penelope Richardson and May Dudley over the years 1962-65, and of new information obtained on research for 1966 and 1967. It aims to present an overall view of the research that has been done in New Guinea during this period, in order to provide not only an outline of past research, but a guide to those contemplating further research on the island. A full coverage of social science research has been attempted, and almost all entries have been checked with the researcher or organisation concerned for completeness and accuracy. Any errors or omissions are regretted, and it is hoped that research workers who are in a position to supply additional information will do so.

Comprehensive bibliographies for this period have also been compiled and checked. Those entries preceded by an asterisk (*) could not be checked from available library sources, but in most cases have been gleaned from reputable bibliographies such as the Australian National Bibliography, the Australian Public Affairs Information Service, the British National Bibliography and the International Bibliography of the Social Sciences. Again, any additional information would be welcomed on relevant publications appearing during this period.

Chapter 2 contains an alphabetical outline of researchers for each District of Papua-New Guinea, followed by bibliographies concerned with that particular District. The three new Districts created in July 1966 have been included as sub-sections within the original Districts for the purposes of this survey. Only research begun after this date is included in these new sections, and all research begun before July 1966 but continuing after that date remains in the original District section.

Research and publications on Irian Barat are given in Chapter 3. This is not assumed to be a complete coverage, but has been included nevertheless as a contribution to a comprehensive study of research in that part of the island.

In Chapter 4 an attempt has been made to list general (i.e. non-District) research by subject or discipline, and readers are also referred back to entries made under District research.
Chapter 5 contains a bibliography of social science publications over the period, again by subject or discipline. Publications which have already been listed in the earlier bibliography by District in Chapter 2 are again entered here for easier consultation. It has, in many cases, been extremely difficult to satisfactorily delineate the disciplines involved in a particular publication, and in these instances entries are repeated under each of the subject concerned. Consultation of all related disciplines is advised, however, to ensure that a complete coverage is made.

Research and publications in the medical, physical and biological sciences have only been included if direct and obvious implications for the social sciences are involved. Much information not satisfying this criterion has reluctantly been excluded for reasons of space, but any person interested in compiling a research survey and/or bibliography similar to the present one in these fields is welcome to the information currently held in the New Guinea Research Unit of the Australian National University in Port Moresby.

Chapter 6 contains a list of journals consulted in compiling the various bibliographies, and their place of publication.

In Chapter 7 a number of theses of relevance to Papua-New Guinea and Irian Barat are listed alphabetically by author. These details were obtained incidentally as a consequence of enquiries about research activities, and any additional information would be appreciated. In most cases copies of the theses would be held in the library of the university concerned.

In Chapter 8, short sections have been written by various academics, long acquainted with the work in their respective disciplines in Papua-New Guinea, on the most important gaps and priorities for social science research in this country. In addition, a section on the problems of research in Irian Barat has been written by Dr R.G. Crocombe, who visited there in 1967 as a consultant to the United Nations Fund for the Development of West Irian.

For information about research undertaken after December 1967, readers are referred to Man in New Guinea, a roneoed newsletter of anthropological and sociological research prepared by the Department of Anthropology and Sociology of the University of Papua and New Guinea. The first issue was released in October 1968, and it is planned to bring four or five issues out each year. This newsletter also contains a list of publications, unpublished reports, reviews and theses of anthropological and sociological interest. For ethnographic publications to 1963, An Ethnographic Bibliography of New Guinea, produced by the Australian National University's Department of Anthropology and Sociology (published by A.N.U. Press) should be consulted.

For a wider coverage of publications after December 1967, readers are advised to consult the roneoed quarterly New Guinea Periodical Index,
produced by Mr C. Freeman, librarian of the New Guinea collection in the University of Papua and New Guinea. A cumulative index is to be produced each year.

It has not, unfortunately, been possible to list exhaustively in the present survey the extensive volume of governmental publications on New Guinea during the period 1962-67, although the following official journals have been perused: Australian Territories (known from June 1968 as Australian External Territories); Papua and New Guinea Journal of Education, Papua and New Guinea Medical Journal, The Industrial Review, The Kibi, The Papua and New Guinea Journal of Agriculture, and The Journal of the Public Service of the Territory of Papua and New Guinea. For a full list of governmental publications to 1964, including details of departmental annual reports, the reader should consult the Annotated Bibliography of Select Government Publications on Australian Territories, 1951-64, published in June 1965 by the Department of Territories, Canberra. For governmental publications after December 1967, the routine quarterly Government Publications of Papua and New Guinea, compiled by Mr S.C. Yocklunn, librarian of the Administrative College of Papua and New Guinea, Port Moresby, should be consulted.

For a brief list of more specialised bibliographies, readers should refer to the 'Bibliographies' section of Chapter 5 in this bulletin.

As the number of organisations involved in research and related activities in New Guinea continues to grow, it has been thought that it would be valuable to briefly outline here their composition and activities for the information of prospective New Guinea researchers.

The New Guinea Research Unit of the Australian National University has conducted interdisciplinary social science research in New Guinea since 1961. Its principal research projects have included studies of urbanisation, co-operatives, indigenous entrepreneurs, industrial development, political organisation, cash cropping, land tenure, re-settlement, non-traditional forms of association and other aspects of social change. The first executive officer was Dr D.G. Bettison, and he was succeeded in 1965 by Dr R.G. Crocombe. The Waigani building, which adjoins the site of the University of Papua and New Guinea, comprises studies, offices, stores, a library and seminar room. A.N.U. houses are located in various towns, including Port Moresby, Rabaul, Lae, Goroka and Mt Hagen, and vehicles and other facilities are also maintained. The Unit publishes the results of some of its research projects in the New Guinea Research Bulletin, which appears at least five times each year.

The University of Papua and New Guinea began teaching in 1966, and the following Chairs have now been filled: Anthropology and Sociology, Professor R.N.H. Bulmer; Biology, Professor K.P. Lamb; Chemistry and Earth Science, Professor D.P. Drover; Economics, Professor A.I. Clunies-Ross; Education, Professor E. Roe; English, Professor F.C. Johnson;
Geography, Professor R.G. Ward; History, Professor K.S. Inglis; Law, Professor P.G. Nash; Mathematics, Professor M.H. McKay; Physics, Associate Professor B. Mainsbridge; and Political Studies, Professor C.D. Rowley. The University Librarian is Mr W.G. Buick. Most research projects undertaken by university staff were begun after December 1967, but those that do fall within the scope of this survey are noted in the following chapters under the name of the researcher concerned.

The New Guinea branch of the Summer Institute of Linguistics, based at Ukarumpa in the Kainantu sub-district of the Eastern Highlands, continued its research throughout the period 1962-67 in the fields of descriptive linguistics, literacy and translation. Anthropological research has also been undertaken by many members. The present director of the Institute is Dr A.R. Pence.

In April 1969 it was announced that the Catholic Church in Papua-New Guinea and the British Solomon Islands would set up a Social Pastoral Institute to carry out anthropological research, as well as provide information and orientation courses for missionaries. The first director is an anthropologist, Dr H. Janssen of Rabaul.

A number of public societies were also formed during the period with the aims of increasing the knowledge about, and understanding of, New Guinea and its people. The Papua and New Guinea Society, formed in 1965, aims to promote interest in and study of the history and development of Papua-New Guinea. Monthly public meetings are held in Hohola, Port Moresby, with guest speakers covering a wide range of topics related to economic, social, political and cultural development. The Journal of the Papua and New Guinea Society, published twice annually since 1966, provides a printed medium for comment and discussion. The address of the Society is Box 172, Port Moresby, New Guinea.

The Papua and New Guinea Scientific Society continued its activities throughout the period, holding monthly meetings in Port Moresby on topics of scientific interest. Its newsletter to members contains brief information on researchers in New Guinea, particularly in the biological and physical sciences. The Society publishes annually the Papua and New Guinea Scientific Society Annual Report and Proceedings, and the Papua and New Guinea Scientific Society Transactions. Enquiries may be directed to the honorary secretary, Dr D. Shaw, c/- Department of Agriculture, Stock and Fisheries, Port Moresby.

Kivung, the linguistic society of the University of Papua and New Guinea, was formed in 1967, and held its first annual conference in October 1967. Periodic meetings are also held on linguistic and related topics. The society has produced a journal entitled Kivung. Dr A. Balint, lecturer in English at the University, is president of the Society.

In May 1967, the first of the Waigani Seminars was held in Port Moresby. These annual conferences are sponsored jointly by the University of Papua and New Guinea, the Australian National University, the Administrative College of Papua and New Guinea and the Council on New
Guinea Affairs. In 1967, the seminar, entitled 'New Guinea in transition', examined indigenous participation in business, industry, politics and society. A number of these papers were published in New Guinea Research Bulletin, no.20. The Second Waigani Seminar was held in May 1968 on 'The history of Melanesia', and the proceedings are available in published form from the Australian National University Press, Canberra, for $4.50 per copy. In 1969 a joint seminar on land tenure and indigenous business enterprise in Melanesia was held.

Occasional seminars on particular research topics have also been instituted by the History Department of the University of Papua and New Guinea, and by the New Guinea Research Unit of the Australian National University. The Council on New Guinea Affairs, based in Sydney, has also held a number of seminars on political and constitutional development and other general topics, in both Sydney and Port Moresby. The Council publishes the quarterly journal New Guinea.

In 1968, the Pacific Manuscripts Bureau was established in Canberra to promote the preservation of unpublished manuscripts relating to all the Pacific Islands, including New Guinea. Its specific aim is to locate manuscripts which may be of value, either now or in the future, to research workers engaged in any branch of Pacific studies, whether historical, literary or scientific. The Bureau is operated by the Research School of Pacific Studies of the Australian National University on behalf of the following sponsoring libraries, specialising in Pacific research: The Mitchell Library, Sydney; the National Library of Australia, Canberra; The National Library of New Zealand, Wellington; and the Library of the University of Hawaii, Honolulu. The executive officer, Mr R. Langdon, would be grateful for information from anyone who knows of, or possesses, any manuscript relating to the Pacific Islands.

The compilation of the present survey of social science research in New Guinea has only been made possible by the prompt and co-operative assistance of the many research workers and institutions involved in the study of Papua-New Guinea and Irian Barat, during the period. Thanks are also due to the Administration of Papua-New Guinea, whose departmental heads and district commissioners supplied much valuable information. In the compilation of the bibliographies the help and guidance of the staff of the following libraries is gratefully acknowledged: the National Library of Australia, Canberra; the Menzies Library, the Australian National University; the Fisher Library, University of Sydney; the Public Library of New South Wales, Sydney; the New Guinea Research Unit Library, Port Moresby, the Library of the University of Papua and New Guinea, Port Moresby, and the Library of the Administrative College of Papua and New Guinea, Port Moresby. Particular thanks are given to Dr Ron Crocombe for his continuing interest, encouragement and advice; and to Dr Anton Ploeg for his assistance with foreign publications.
Chapter 2

Papua-New Guinea: research and bibliography, by district

1. Bougainville District

Research

Mr R. B. Dakeyne, then senior tutor in geography, University of Sydney, studied the impact of the Conzinc Riotinto of Australia mining exploration upon the Nasiol people of Central Bougainville in May 1966 and from December 1966 to February 1967. Mr Dakeyne is now with the Department of Advisory Services, University of Sydney (see also Northern District).

Dr S. H. Elbert, professor of Pacific languages and linguistics, University of Hawaii, spent two months early in 1963 studying the languages of the Mortlock Islands (Takuu) as part of his research into Polynesian Outlier languages. Much of his previous work has been in the British Solomon Islands.

Mr and Mrs I. Firchow, linguists, Summer Institute of Linguistics, worked from March to September 1967 on a sketch grammar and study of the mutual intelligibility of the dialects of the Rotokas of the Wakanai area. Further work was planned from February to September 1968.

Mr R. Franke, teaching assistant and graduate student, Harvard University, conducted a preliminary language study of the Aita people in Kieta sub-district from July to September 1966; an assessment was also made of the suitability of doing a study of economic change. A longer study was planned for 1969-70.

Mr J. S. Friedlaender, graduate student in anthropology, Harvard University, conducted research among the Nasiol, Torau, Eivo, Simeku, Sivai and Rotokas people of Bougainville Island from June 1966 to March 1967. He studied racial variations, particularly the relationship of linguistic 'distance', measured in shared cognates, genetic 'distance', measured in blood group frequencies, and physical 'distance', measured in terms of a multiple discriminant analysis of anthropometric variables.

Mr I. J. Howard, then graduate student in anthropology, East-West Center, Hawaii, made a general linguistic and ethnographic survey of the Takuu people of the Mortlock Islands from April to November 1964.

Mr and Mrs C. Hurd, linguists, Summer Institute of Linguistics, studied all the language groups of the Bougainville District in 1963 and made a language and dialect survey of the Nasiol people of the Kieta area in 1964 (see also New Britain District).

Dr D. C. Laycock, fellow in linguistics, Department of Anthropology and Sociology, the Australian National University, conducted research in the Buin area of Bougainville from November 1966 to May 1967. His work involved checking for publication a manuscript dictionary by R. Thurnwald, compiled during the latter's two visits to Buin in 1908 and in the 1930s. Dr Laycock also did independent work on the Buin language in preparation for a sketch grammar and dictionary (see also (West) Sepik District).

Mr P. Ogan, then graduate student in anthropology, Harvard University, made a basic ethnographic investigation of Nasiol people in the Aropa Valley (Kieta sub-district) from November 1962 to August 1964. Particular emphasis was placed on the study of changing economic life. In July 1964 Mr Ogan was visited by Dr A. Damon, associate professor of epidemiology and lecturer in anthropology at the same university, to explore the possibility of a combined medical-genetic-anthropological survey in Bougainville. This was undertaken
by Harvard University in July and August 1966 as a pilot study in a proposed long-range investigation of culture, biology and disease in 10 to 15 groups in the Solomon Islands. After assisting in this survey, Dr Ogan, now assistant professor of anthropology, University of Minnesota, carried out further research among Nasioi speakers in the Kongara census division (Kieta sub-district) from September 1966 to February 1967. This latter investigation was particularly aimed at comparing forms of social organisation in differing ecological circumstances. In December 1967, Dr Ogan began a study of the House of Assembly election campaign in the South Bougainville open electorate.

Dr Damon's own work among the Nasioi of Kieta (July 1966) and the Kwaio of Malaita Island, British Solomon Islands Protectorate (August 1966), was concentrated on cultural-biomedical relationships, including social and physical anthropology, genetics and medicine, in these populations. Other American members of the biomedical team included J. Bloom and L.B. Page, internists; I. Emanuel, pediatrician; D. Verkee, ophthalmologist; H.L. Bailit, dentist; and J.S. Friedlaender (see above), E. Giles (see also Morobe District) and H.M. Ross, physical anthropologists. Two Australian physicians, J. Biddulph, pediatrician, Papuan Medical College, Port Moresby, and P. Sinnett, cardiologist, the Australian National University, were also team members.

Mr M. Rimoldi, research scholar, Department of Anthropology and Sociology, the Australian National University, worked from November 1965 to November 1966 among the east coast people of Buka Island, studying their political system, social change, and the role of the Hahalis Welfare Society. He returned for similar study in late 1967, including a coverage of preparations for the 1968 House of Assembly elections in the North Bougainville open electorate (see also Morobe and Northern Districts).

Dr R.P. Salisbury, professor of anthropology, McGill University, Montreal, visited the copper site of Bougainville Copper in September 1967 to evaluate the social consequences of technological decisions made during the exploration phase. Dr Salisbury is involved in a McGill University comparative study of the sociology of isolated mining communities in the Caribbean and in Canada, and of their potential as foci for regional development (see also Central, Eastern Highlands and (East) New Britain Districts).

Mr J. Specht, research scholar in anthropology (prehistory), the Australian National University, worked during 1967 on an archaeological survey and excavations on Buka and North Bougainville islands (see also Central and New Britain Districts). He was assisted during July 1967 by Mr R.J. Scarlett, osteologist of the Canterbury Museum, Christchurch, New Zealand (see also Eastern Highlands District).

Bibliography

Allen, J. and J., 1965. 'Halia language course'. Department of Information and Extension Services, Port Moresby.

Allen, J. and Hurd, C., 1965. 'Languages of the Bougainville District'. Department of Information and Extension Services, Port Moresby.


Booth, P.B. and Vines, A.P., 1967. 'Blood groups and other genetic data from Bougainville, New Guinea, with observations on the occurrence of the Ro (cDe) and Rz (CDE) gene complexes in Melanesia', Archaeology and Physical Anthropology in Oceania, 2:3:227-35.


Hurd, C. and P., 1967. 'Nasioi language course'. Department of Information and Extension Services, Port Moresby.


2. Central District

*Research*

Dr B.L. Abbé, then research scholar, Department of Anthropology and Sociology, the Australian National University, studied social change among the Mailu from February 1960 to February 1961 and from February 1962 to November 1962. A book, entitled *Traditional groupings and modern associations: a study of changing local groups in Mailu, Papua*, will soon be published by the Australian National University Press. Dr Abbé returned to New Guinea in July 1966 as research fellow, New Guinea Research Unit, the Australian National University, and studied non-traditional associations in Port Moresby.

Mrs L. Barnett, then research assistant, New Guinea Research Unit, the Australian National University, worked in 1962 and 1963 on women's patterns of association and adjustment to urban life at Hohola, a government housing estate near Port Moresby.

In July 1963, the then executive officer, New Guinea Research Unit, the Australian National University, Dr D.G. Bettison, moved from Canberra to Port Moresby and with Miss P. Richardson, then research assistant, Dr Bettison analysed the census taken in 1961 of the indigenous population of Port Moresby and environs. In 1964 Dr Bettison did a sociological study of the expatriate community in Port Moresby, and a political study of the 1964 House of Assembly elections. The latter was conducted in conjunction with Dr P.W. van der Veur (see Morobe District), then senior research fellow, Department of Pacific History, the Australian National University, and Dr C.A. Hughes, then fellow, Department of Political Science at the same university, who studied the elections in the Moresby open electorate and the special electorates of the Central District (see also below). Dr van der Veur also analysed the first three meetings of the House of Assembly. Dr Bettison left the Unit in May 1965 (see also Eastern Highlands District) to take up the chair in anthropology at the Simon Fraser University, Vancouver, and was succeeded as
executive officer by Dr R.G. Crocombe, previously research officer with the New Guinea Research Unit. Dr Crocombe initiated research into land tenure in the Central District in 1966 (see also Manus, Morobe and Northern Districts). During Dr Crocombe's nine months' study leave at the East-West Center, Hawaii, from November 1967, Dr S. Singh (see New Britain District and Economics) was acting executive officer.

Dr B.G. Burton-Bradley, assistant director (mental health), Department of Public Health, Konedobu, in co-operation with the then government anthropologist, Mr C. Julius, conducted research in 1962 into attitudes towards mental health in Motu and Koita villages. In 1963, Dr Burton-Bradley studied class, status and the social marginality of mixed-race people in Port Moresby, and in 1966 certain ethnopsychiatric aspects of betel chewing.

Mr G.S. Coulthurst, then projects officer, Department of the Administrator, Konedobu, studied some aspects of race relations in the Port Moresby area in 1962 and 1963.

Mr T.E. Dutton, research scholar in linguistics, the Australian National University, collected material for a descriptive and comparative study of the Koiarian language family of Central Papua during the period March 1966 to March 1967. This language family includes the Koita, Koiari and Mountain Koiari languages of the Central District, and the Barai, Aomie and Managalasi languages of the Central and Northern Districts. Mr Dutton planned to return for further study from April to June 1968 (see also Northern District).

Dr R. Fink, then lecturer in anthropology, University of Sydney, and now Dr Latukefu, senior lecturer in social studies, University of Papua and New Guinea, conducted a survey of inter-racial attitudes in Port Moresby early in 1965 (see also Milne Bay District).

Dr M. Groves, then professor of sociology, University of Singapore, visited the Central District throughout the period 1962-66 in connection with his study of Western Motu social organisation, political development and urbanisation. In 1965 and 1966, his studies were especially concerned with the social structure of Porebada and Manumanu villages near Port Moresby. Dr Groves returned in late 1967 to study preparations for the 1968 House of Assembly elections in the Hiri open electorate. Dr Groves is now professor of sociology, University of Hong Kong.

Mr R. Hide, research assistant, New Guinea Research Unit, the Australian National University, conducted a survey of the Merani resettlement blocks in the Cape Rodney area of the Abau sub-district during February 1967 (see also Eastern Highlands (Chimbu) and Western Districts).

Dr E.H. Hipsley, medical officer-in-charge, Australian Institute of Anatomy, Canberra, worked for two months in 1962 among the Kaporaka of Rigo sub-district (near Hula), studying food consumption and energy expenditure. His work, under the auspices of the South Pacific Commission, was carried out in conjunction with Miss N. Kirk, senior nutritionist, Commonwealth Department of Health. In June 1963 Dr Hipsley revisited Port Moresby, where Miss Kirk, now Mrs Hitchcock of the Department of Public Health, Konedobu, had for some months been studying population changes and employment among the Purari immigrants of Rabia Camp. In early 1966 Mrs Hitchcock (see also Eastern Highlands District) followed up her study with a census of the Camp, in conjunction with Mr N.D. Oram.

Dr C.A. Hughes (see above), now professor of government, University of Queensland, began a study in December 1967 of preparations for the 1968 House of Assembly elections in the Moresby open electorate, in conjunction with Mr R.M. Hamilton, lecturer in government, University of Queensland, and Mr T. Griffiths, post-graduate student in sociology, University of New South Wales. The Central regional electorate was studied by these three, in conjunction with Drs Groves (see above) and McArthur (see below).

Mr R.J. Lampert, research officer in archaeology, Department of Anthropology and Sociology, the Australian National University, investigated the Hood Peninsula area during 1966 and made an examination and evaluation of archaeological sites near Port Moresby in October and November 1967 (see also New Britain, (East) Sepik and Western Highlands Districts and Archaeology and prehistory).

Dr M. McArthur, lecturer in anthropology, University of Sydney, began a study in late 1967 of preparations for the 1968 election campaign for the House of Assembly in the Goilala open electorate.
Mr P. Metcalf, assistant lecturer in sociology, University of Singapore, worked from February 1966 to February 1967 on a study of labour organisations in Port Moresby, and in particular, the Port Moresby Workers' Association.

Mr N. D. Oram, then research officer, New Guinea Research Unit, the Australian National University, worked throughout 1962-66 on the major social, economic and administrative factors determining urban development in Port Moresby. In addition to studies on local government and housing, he carried out studies of settlement and social and economic change among landholding and migrant groups living in the town. In 1964 and 1965 he concentrated on studies of culture change and economic organisation of Vulaa and other Hula-speaking people from Rigo sub-district, both in their villages and in Port Moresby. He also studied problems of settlement of Purari migrants at Rabia Camp, where Mrs N. Hitchcock (see above) carried out a nutritional survey.

Mr R. Pulsford, lecturer in sociology, Papuan Medical College, Port Moresby, continued a survey begun in 1965 on changing attitudes to medicine and illness among the Motu people living at Pari village near Port Moresby during 1966 and 1967. Several visits were made each week.

Mr A. A. Rew, research scholar, Department of Anthropology and Sociology, the Australian National University, began a year's study in December 1966 on urbanisation in Port Moresby, particularly the role of work-groups in the absorption of migrants into the social life of the town. A second field trip was planned for 1968.

Mr D. K. Robertson, patrol officer, Department of District Administration, worked in January and February 1967 on a study of the population of settlements of non-local inhabitants within the Port Moresby area.

Miss D. Ryan, then research assistant, New Guinea Research Unit, the Australian National University, worked from 1963 to 1965 on a comparative study of urbanisation among Toaripi-speaking immigrants from the Kukipi area of the Gulf District (where she had previously worked). She collected data in Port Moresby on links with home area, social relationships, and problems of income and expenditure (see also Gulf, Madang, Morobe, New Britain and Sepik Districts).

Dr R. F. Salisbury (see Bougainville, Eastern Highlands and (East) New Britain Districts) studied migrant workers in Port Moresby from New Britain and the Eastern Highlands-Chimbu Districts and their relationships with their home areas, from May to December 1967.

Dr T. G. Schultz-Westrum, scientific assistant, Zoological Institute, University of Munich, worked with Mrs Schultz-Westrum and Mr W. Schiefenhovel, student in medicine, Erlangen University, on zoological and anthropological research among the Roro people around Bereina in June and July 1966. Mr Schiefenhovel studied traditional medical beliefs and practices (see also Gulf and Southern Highlands Districts).

Miss S. Smith, then student in linguistics, the Australian National University, conducted research from December 1965 to February 1966 into the structure of the Koitaki language spoken in Kila Kila, Baruni, Papa, Roku, and other villages around Port Moresby.

Mr J. Specht (see Bougainville and New Britain Districts) conducted research in the Central District during March 1966 on prehistoric and modern pottery traditions.

Miss A. Teasdale, anthropologist, Department of District Administration, Konedobu, spent 1966 studying land tenure among the Magau people in the Abau sub-district.

Mrs K. van der Veur and Miss P. Richardson, then research assistants, New Guinea Research Unit, the Australian National University, worked during May and June 1964 in the Hohola area of Port Moresby in connection with the Unit's research programme on education in urban areas (see also Morobe and New Britain Districts).

Miss G. van Rijswijk, research scholar, Department of Anthropology and Sociology, the Australian National University, spent eighteen months between June 1963 and April 1965 studying social change and resettlement among the Kuni peoples of Kairuku sub-district (see also Milne Bay and New Britain Districts).

Mr A. C. Voutas, then undergraduate student in oriental studies, the Australian National University, studied the composition and attitudes of the Irian Barat community of Port
Moresby during the summer vacation of 1964. Mr Voutas is now Member of the House of Assembly for the Morobe regional electorate (see also Irian Barat).

Mr and Mrs J.P. White, then research scholars, Department of Anthropology and Sociology, the Australian National University, made an archaeological survey in the Central District early in 1964. Later Dr White returned to excavate a site in the Goilala sub-district. In the period from August to December 1967 Dr White, now assistant curator of anthropology, Australian Museum, Sydney, made further investigations at the Kosipe archaeological site of the precise relationship between archaeological material and volcanic ash fall, in company with Dr B.P. Ruxton, CSIRO Division of Land Research (see also Eastern Highlands, Morobe and Western Highlands Districts).

Miss J. Whiteman, then nutritionist, Department of Public Health, Konedobu, conducted a dietary survey in the Hohola area of Port Moresby during July and August 1962. This included a socio-economic survey of food purchasing and an investigation of attitudes and beliefs relating to food and health. In May 1966, she studied malnutrition in the Hood Peninsula area of the Kwikila sub-district. Throughout 1967 Miss Whiteman conducted a dietary study of the Motu people of Pari village near Port Moresby (see also Eastern High-lands, Gulf, Milne Bay, Morobe and Sepik Districts).

Mr W.B. Wood, lecturer in anatomy, Papuan Medical College, Port Moresby, conducted research into dermatoglyphics among people of Pari village near Port Moresby and students of the Papuan Medical College throughout 1966. Mr Wood is also in the process of building up a collection of skulls and other human skeletal material from Papua and New Guinea for the anatomy museum of the Papuan Medical College.

Bibliography


-- 1966. 'Culture change, economic development and migration among the Hula'. Paper presented to New Guinea Research Unit seminar on urbanisation in Papua-New Guinea.


Papua-New Guinea, Department of District Administration, 1965. 'Census of Papuan and New Guinean inhabitants in the town of Port Moresby, November 1964'. Roneod.

Papua-New Guinea, Department of the Administrator, Project Planning Team, 1965. 'Fresh food study - Port Moresby'. Roneod.


*Pence, A. and Steinkraus, W., 1964. 'Languages of the Goilala sub-district'. Department of Information and Extension Services, Port Moresby.


Short, L.M.T., 1965. 'The phonetics and grammar of the Hula language with vocabulary and translation and notes of other dialects of the Hood Bay district'. Libraries Board of South Australia, Adelaide.


-- 1966. 'Report of nutritionist's visit to the Hood Peninsula, Kwikila sub-district'. Department of Public Health, Port Moresby. Typescript.

3. Eastern Highlands District

Research

An expedition from the Nanzan Catholic University, Nagoya, Japan, under the guidance of Dr H. Aufenanger, professor of ethnology, visited the Eastern, Western and Southern Highlands districts from August to December 1964. Members studied ethnology in the Pompobus, Kuli, Mug, Lake Kopiago and Schrader areas. Dr Aufenanger was particularly interested in the spiritual culture of the people and in elements of material culture not yet recorded (see also Sepik District).

Dr K.V. Bailey, then specialist medical officer (nutrition), Department of Public Health, Konedobu, studied the nutritional status of the Chimbu in June and July 1965, and in particular the peanut butter infant-feeding project in the Waiye local government council area.

Dr R.M. Berndt, professor of anthropology, University of Western Australia, visited the Kainantu area in 1964 to make an election study in the Kamano, Jate, Fore and Usurufa districts. He was accompanied by Dr C.H. Berndt, fellow in anthropology at the same university.

Dr H.C. Brookfield, professorial fellow in geography, the Australian National University, made a number of visits between 1962 and 1965 to the central Chimbu area in connection with his work on agriculture, land allocation and economic development. From September to November 1963, Dr Brookfield especially studied Chimbu residence in relation to agricultural activities and the effect of cash cropping and changing values on their economy. He returned for a brief visit during May and June 1967 to check on data needed for his continuing study of economic change (see also Geography).

Dr P. Brown, then fellow, Department of Anthropology and Sociology, the Australian National University, revisited the central Chimbu area throughout this period, working especially among the Naregu tribe. Her general social anthropological study included investigations of social change, political development, land and territorial organisation, kinship relations, exchange and social control. She is now Dr Paula Brown Glick, associate professor of anthropology, State University of New York, Long Island.

Mr J.M.A. Chappell, then research scholar in geology, University of Auckland, made a petrographic study from December 1963 to March 1964 of thirteen native quarries and the stone implements derived therefrom, with a view to preliminarily indicating past trade nets (see also Madang and Morobe Districts).

Mr C. Cripner, then research scholar, Department of Anthropology and Sociology, the Australian National University, worked in the Upper Chimbu valley from March 1962 to September 1964. He studied social structure and the political aspects of exchange, started an analysis of the grammar and phonology of the Chimbu language and collected material for a dictionary. Mr Cripner is now lecturer in sociolinguistics, Department of Applied Linguistics, University of Edinburgh.
Dr Z.P. Dienes, then professor of mathematical education, Teachers' College, Columbia University, New York, made three visits in 1965 to study mathematics learning by Bena children. Dr Dienes is now at the Faculté des Sciences, Université de Sherbrooke (see also Western Highlands District and Education).

Dr B.R. Finney, then honorary fellow, New Guinea Research Unit, the Australian National University, studied indigenous entrepreneurs among the Chimbu, Asaro and Bena peoples from March to November 1967. Mrs R.S. Finney, visiting research fellow, New Guinea Research Unit, did research on motivation among indigenous entrepreneurs in the same area.

Dr D.C. Gaïdusek, National Institute of Neurological Diseases and Blindness, National Institutes for Health, Maryland, U.S.A., visited the Okapa area throughout the period 1962-67 in connection with his continuing research begun in 1957 into the kuru disease and the human biology of the people of the kuru region. For several months each year in this period he has worked among the Kukukuku peoples of the Wonenara area of the Eastern Highlands, the Menyamya area of the Morobe District and in the Kaintiba area of Papua. He studied child growth and development, human genetics and evolution, disease patterns and cultural styles of nervous system programming. Further visits were planned for 1968.

Dr R.M. Glasse, then visiting specialist in anthropology, Department of Public Health, Konedobu, worked for most of 1962 and until May 1965 among the South Fore people of Okapa sub-district on a study of social structure and the social effects of kuru. Also taking part in the field work in 1962 was Mrs S. Lindenbaum. In September 1962, he and Mrs Glasse conducted a survey of the Daribi speakers of Karimui. Research into kuru disease in Okapa sub-district continued throughout 1963 from the base hospital at Okapa. Dr R.W. Hornabrook, Department of Public Health, Konedobu, continued research into the kuru disease and related matters in 1964 and 1965.

Dr L.B. Glick, now assistant professor of anthropology, University of Wisconsin, returned to the United States of America in June 1962 after a period of study at Hegetenu in the Lufa area. Dr Glick studied indigenous medical treatment of sickness and Mrs Glick studied art and artefacts.

Dr M. Godelier, agrégé de l'université, and maître-assistant at the Ecole des Hautes Études, Paris, began an economic anthropological study of the Baruya people of Wonenara sub-district in March 1967. This involved a detailed quantitative investigation of production, distribution, consumption and other economic processes, a demographic and sociological census, and a study of their language, family, kinship and corporate group structures. Myths, legends and religious activities were also recorded.

Miss S. Hatanaka, then graduate student in anthropology, University of Tokyo, and now research fellow of the New Guinea Research Unit, began a three-months' preliminary survey for a study of social anthropology in December 1964. She worked mainly among the Gunangi people of the Kebil area (Chimbu sub-district) before deciding after further investigation in 1965 to work in the West Sepik area. She wrote in 1965 that she would be pleased to tell anyone interested in the Gunangi group about research problems and her own data (see also Sepik District).

Dr E.H. Hipsley and Miss N. Kirk (see Central District) studied food consumption and energy expenditure among the Kamanegu of Chimbu sub-district from February to May 1962. Both revisited the area in June 1963 to study water and salt metabolism of the Chimbu people in association with Dr W.V. Macfarlane, professor of animal physiology, Waite Agricultural Research Institute, University of Adelaide (see also Medicine).

Mr G.R. Hogbin, then research assistant in economics, the Australian National University, made a preliminary survey in the Eastern Highlands in late 1963 in connection with the study supervised by Mr E.K. Fisk of indigenous land settlement and village participation in the monetary economy. Mr Hogbin returned for six months' study here in 1964, and in 1965 he conducted research among the Gafuku-Gama, Asaro and Siane peoples of Goroka sub-district (see also Gulf, Morobe and Northern Districts). Mr H. Liu, research assistant in the same department, assisted with the field work for three months in 1965. Mr Fisk, professorial fellow in economics, visited Goroka in September 1964.

Dr D. Howlett, now lecturer in geography, University of Sydney, revisited the Asaro and Bena Bena areas of the Goroka valley from June to August 1964 in connection with her study of economic change (see also Northern District).
Mr I. Hughes, now research student in geography, the Australian National University, studied factors, including land availability, affecting the cash crops, coffee and pyrethrum, of the Kere tribe in the Sina Sina area from February to March, and June to August 1966. He returned in September 1967 for a year's study of the ecology of traditional trade in and around the Chimbu District.

Dr L.L. Langness, now associate professor of anthropology, University of Washington, Seattle, studied culture contact dissonance among the Bena Bena people near Goroka from January 1961 to May 1962. He planned to conduct further field work in 1968, in conjunction with Mr J.C. Weschler, graduate student in anthropology, University of Washington, on a controlled comparison of child training and personality characteristics of two highland societies, the Bena Bena of the Eastern Highlands and the Mae Enga of the Western Highlands.

Dr N.R. McArthur, professorial fellow in demography, the Australian National University, visited Okapa in May 1963, at the invitation of the Medical Research Advisory Committee for Papua-New Guinea and the Director of Public Health, to review the demographic data being collected in the kuru region and advise on the type of record that would be useful for future research.

Dr D.N. McVeav, senior fellow in biogeography, the Australian National University, studied the alpine vegetation, bryophytes and lichens of Mt Wilhelm in May and June 1966. Similar research was conducted at Mt Wilhelm in June and July 1967 (see also Southern Highlands and Western Highlands districts).

The Micro-Evolution Studies Project of the Committee on New Guinea Studies (CONGS) of the University of Washington, Seattle, entitled 'The dynamics of micro-evolution of a human community', continued its work throughout the period 1962-67, under the direction of Dr J.B. Watson, then professor of anthropology at that university. The project included a comparative study of the racial, cultural, linguistic and psychological variations of the Gadsup, Taierora, Auyana and Awa, four closely related peoples living in adjacent areas in the Kainantu sub-district. Taking part were ethnographers, linguists, a geographer, a physical anthropologist and a psychologist (see below). In July 1966 a conference of all participating researchers was held at Seattle, where the results of individual researchers were reported and evaluated by the group, and plans made for publication of these works. A final conference of the research group was to be held under the sponsorship of the East-West Center and the National Science Foundation at the East-West Center, Honolulu, in August 1968, to synthesise the findings of the several phases of the work.

Dr and Mrs Watson completed a year's ethnological field work among the Taierora and Agarabi peoples in July 1964. During 1966-67 Dr Watson was senior specialist at the East-West Center, engaged primarily in research and writing up of New Guinea materials. A brief return visit was made to the Taierora people in September 1967. Dr H.P. McKaughan, then associate professor in linguistics, University of Washington, completed a year's linguistic study (including descriptive studies, lexicostatistics and internal reconstruction) among the Gadsup, Taierora, Auyana and Awa in June 1962. Dr McKaughan, now professor of linguistics and director of the Pacific and Asian Linguistics Institute, University of Hawaii, is currently engaged in descriptive studies of these languages based on information collected in 1961-62 and augmented by materials provided by members of the Summer Institute of Linguistics. Mr B.M. du Toit, then teaching fellow in anthropology, University of Oregon, completed a year's study of two Gadsup villages in July 1962; special emphasis was placed on social structure and organisation, as well as on the collection of demographic data. Dr du Toit is now assistant professor in anthropology and African studies at the University of Florida. Miss K.R. Pataki, then graduate student, University of Washington, worked in the Gadsup area in 1962 on religious changes accompanying the efforts of Christian missionaries. In 1963 Mr K.J. Pataki, then field assistant (geography), completed his study of comparative human geography in the Kainantu sub-district, which particularly emphasised landscape and ecological variation, spatial distributions of the population, routes and types of access, and communication flow and intensity. In 1963, Mr S.G. Robbings, then research assistant (anthropology), University of Washington, completed a year's ethnographic study of the Auyana, with particular attention being paid to the cognitive character of responses to Western contact, personality characteristics and psychological processes. Information was collected on a cargo cult among these people, and was investigated further in 1964, during which time a large battery of tests relating to cognitive rigidity were
given. The relationship between the allocation of goods and the handling of disputes was also studied. In 1962 Dr R.A. Littlewood, research assistant (anthropology), University of Washington, studied the variable physical, genetic and racial features of the Gadsup, Tairora, Auyana and Awa, as well as carrying out serological work in collaboration with Dr R. J. Walsh, professor of human genetics, University of New South Wales (see also Milne Bay District). Dr Littlewood worked in late 1966 on New Guinea genetic data and in 1967 on a monograph on the physical anthropology of the Kainantu language family for a series to be published by the University of Washington Press. Dr P. L. Newman, now assistant professor of anthropology, University of California, Los Angeles, finished a year's general ethnographic survey of the Awa people in July 1965. Dr M. M. Leininger, while a doctoral student in the Department of Anthropology, University of Washington, completed a year's ethno-psychological study of the Gadsup people in 1964. Some of the results of this study are reported in her doctoral dissertation, 'Convergence and divergence of human behaviour: an ethno-psychological study of two Gadsup villages in the Eastern Highlands of New Guinea' (micro-filmed at the University of Michigan, June 1966), and the study was also a contribution to the CONGS project. Dr Leininger is now professor of nursing and anthropology at the University of Colorado, holding a joint appointment in the Department of Anthropology and the School of Nursing. Mr J. D. Cole, junior member of the micro-evolution project, worked from November 1966 to November 1967 among the Tairora, Awa, Agarabi, Kamano, Auyana, Gadsup and Fore language groups. Mr Cole was concerned with the excavation of historic and prehistoric open cave sites, which will furnish archaeological background information for the micro-evolution project. An ethnographic enquiry was also conducted emphasising those topics which may enhance archaeological interpretations. Mr R. J. Scarlett (see Bougainville District) spent three weeks working with him.

Dr R. F. Salisbury (see Bougainville, Central and (East) New Britain Districts) is continuing the analysis and writing up of field materials collected on the Siane between 1952 and 1962, centring on the interrelationships between political and economic development. He spent the period between May and December 1967 in Port Moresby, investigating the relationships between the Siane area and Port Moresby. He also revisited the Siane, Kundiawa and Goroka areas to evaluate current economic and political changes.

Mr W. Straatmans, research officer, Department of Economics, the Australian National University, began a survey of indigenous cash cropping in New Guinea in 1963 in the Sina area of the Eastern Chimbu. The project, which continued until 1967, was under the direction of Dr R. T. Shand, senior research fellow in the same department. This area was revisited for further study in 1966 (see also Madang, Morobe, New Britain, Sepik and Western Highlands Districts and Economics). Mr Straatmans began a study of the Goroka market in 1967 as part of a joint project with the Department of Economics, University of Papua and New Guinea, and the Department of Anthropology and Sociology, the Australian National University. The Goroka market was studied during both the dry and wet seasons, many buyers and sellers were interviewed and case studies made. Mr Straatmans also studied the indigenous markets in Mt Hagen and Lae.

Teams from the Summer Institute of Linguistics worked in 1963 in Kainantu sub-district in the Gadsup, Agarabi, Tairora, Kamano and Asiana census divisions, in Okapa sub-district on the Fore language and in Goroka sub-district on the Gahuka, Bena, Siane and Asaro languages. The Institute also carried out research in the Milne Bay, Southern Highlands, Bougainville and Morobe districts in 1963. Publications in 1964 included literacy and translation materials from six administrative districts: Central, Northern, Southern Highlands, Eastern Highlands, Morobe and Sepik districts. A list of manuscripts produced by members of the Institute is available from the Ukarumpa headquarters, and the bibliographies listed in the Linguistics publications in Chapter 5 should also be consulted for details of Institute manuscripts and publications. In 1965 the Institute reported having more than two hundred members working in different parts of the country. Within the Eastern Highlands District, Dr D. Bee, now senior consultant, continued linguistic analysis and translation work begun in 1958 on the Usarufa language during 1965 and 1966. In July 1966 she began work on a sketch grammar of Binumarien and the production of a series of literacy materials in Usarufa. From April to August 1967, she studied Usarufa grammar, folklore, and concepts of man and his environment. Miss V. S. Chenoweth, linguist-ethnomusicologist, studied the ethnomusicology of the Gadsup, Kamano, Bena Bena, Usarufa and Binumarien tribes from July 1965 to May 1967. In 1967 she also studied the Duna, Biangi and Wajokes of the Southern
Highlands and Morobe districts. Further research on the Usarufa was planned for 1968. Mr E. W. Deibler, linguist, continued research begun in 1962-63 on a grammatical analysis and description of Gahuku from April to September 1967. Translation work was also undertaken. Miss D. J. James, linguist and consultant in phonology, conducted research on the Siane language in 1966, and returned in 1967 for further research there on anthropology and grammar, and the compilation of a more complete lexicon of the Siane language. Mr and Mrs R. Young, linguists, worked among the Bena Bena on grammar analysis and literacy trials during the first five months of 1965 and returned for further work there in 1966. Research undertaken by other members of the Institute in other districts during 1962-67 is reported on in the district concerned.

The Summer Institute of Linguistics held its second workshop in anthropology from 4 to 13 September 1967, at Ukarumpa. Speakers included R. F. Salisbury, J. B. Watson, F. I. Andersen, P. McLaren, and P. K. Townsend outside S.I.L., as well as several S.I.L. members with anthropological interests and training. Workshop participants included fourteen S.I.L. translation teams and four Bible translators from other organisations. Some of the topics discussed were New Guinea religions, community development, ethnomusicology, and anthropological field methods.

Dr P. D. Tilley, lecturer in geography, University of Sydney, studied the structured ground and solfuction in the summit area of Mt Wilhelm during May and June 1965.

Mr L. K. Wade, research scholar in geography, the Australian National University, conducted an ecological study of the alpine and higher sub-alpine vegetation of Mt Wilhelm from May 1966 to July 1967. The study was basically phytosociological, with results to be correlated with climatic and microclimatic data, soils data, and other environmental aspects.

Dr R. Wagner, then graduate student in anthropology, University of Chicago, worked from October 1963 to February 1965 in the Karimui area on the religion, social structure and agriculture of the Daribi (Mikaru) people. His study was financed by the New Guinea Native Religions Project of the University of Washington and was supported by the Bollingen Foundation. He is now assistant professor of anthropology, Southern Illinois University. Dr Wagner proposed to return in July 1968 for a study entitled 'A mathematical model for Daribi society', with additional time devoted to a study of Daribi religion.

Early in 1965, a field station was built on Mt Wilhelm for the Australian National University. It was designed by Mr B. S. Saini, Faculty of Architecture, University of Melbourne (see Building and building materials), prefabricated in Australia, and constructed by local labour under the supervision of Dr D. G. Bettison, then executive officer, New Guinea Research Unit, the Australian National University (see Central District). It was built as a base for field research at high altitudes, and is being used primarily by members of the Australian National University, but is available to other researchers as well. A grant from the Bernice P. Bishop Museum assisted with its equipment. Dr D. Walker, professorial fellow in biogeography, the Australian National University, arranged the completion of fittings at the Mt Wilhelm station, and made an initial survey of non-arboreal montane vegetation. He returned in June 1967 for preliminary collecting for vegetation history studies (see also Western Highlands District).

Miss J. Wheeler, research scholar in geography, the Australian National University, worked during 1966 and 1967 in the Kainantu area on a study of the influence of man on the vegetation of the highlands, using the vegetation history of the selected areas, the technique of pollen analysis of lake and swamp deposits, and indigenous influences on the vegetation at the present time, using ecological techniques (see also Western Highlands District).

Mr and Mrs J. P. White (see Central, Morobe and Western Highlands Districts) made an archaeological survey in the Eastern Highlands District in early 1964. Mr White returned in July 1964 to excavate sites in the Tairora and Siane areas. In 1965 Mr and Mrs White worked among the Kami and Tairora people for four months. They excavated prehistoric caves and recorded the making and use of flaked stone tools on an 8mm movie film which will be made available to interested parties. They also recorded and identified rock paintings.

Miss J. Whitman (see Central, Gulf, Milne Bay, Morobe and Sepik Districts) visited the district in July 1965 to assess the increased consumption of rice and decreased consumption of sweet potatoes among the Chimbu people.
Drs S.C. Wigley and D.A. Russell, Department of Public Health, Konedobu, and Dr G.C. Scott, School of Public Health and Tropical Medicine, University of Sydney, began a long-term project in 1962 among the Karimui involving a controlled trial of B.C.G. as a prophylactic for leprosy. Regular visits were made at six monthly intervals; this work also involved a detailed census of the population, and investigations of family relationships, social aspects of leprosy and its natural history. A tuberculin survey was made in March 1966 and a leprosy survey in September 1966. The trial itself was concluded in December 1967 and was replaced by a control programme using a depot-sulfone drug, CI 556, prepared by Parke Davis Research Laboratories. Several papers on the B.C.G. trial were to be presented at the International Leprosy Congress, London, in September 1968.

Dr S. Wurm, then professorial fellow in linguistics, the Australian National University, revisited the Kamano and Keigana people for linguistic checkwork in August 1965. He returned for a linguistic survey of the Yagaria tribe in June and July 1966 (see also Western District).

(i) Chimbu District

Dr R.C. Hausfeld, medical anthropologist, School of Public Health and Tropical Medicine, University of Sydney, carried out field work at Karimui in October and November 1966, and November and December 1967, as part of the ongoing leprosy research project directed by Dr G.C. Scott (see above). Information was collected on the residence, origin and visiting patterns of every individual recorded in the study area (forty-eight villages). Some additional information was recorded in connection with the study. Under preparation are papers with the following working titles: (i) The distribution of women and visiting networks at Karimui; (ii) Structural relationships in the estimation of exposure to leprosy at Karimui; (iii) Exposure to leprosy: an anthropological method for measuring exposure to leprosy in a leprosy-endemic population at Karimui; (iv) Coding social data for computer analysis; (v) Ritual drama at Karimui: from war to peace.

Mr R. Hide (see Central and Western Districts) began a four months' study in the Sina area in December 1967 of the processes of demarcation instituted under the Land Titles Commission Ordinance 1962.

Bibliography


-- 1962. 'Sayings with a hidden meaning (Central highlands, New Guinea)', Anthropos, 57:3-6:25-35.


Deibler, E. and Trefry, D., 1963. 'Languages of the Chimbu sub-district'. Department of Information and Extension Services in co-operation with the Summer Institute of Linguistics, Port Moresby.


-- 1964. 'Filiation and affiliation among the Gadsup', Oceania, 35:2:85-95.

Frantz, C.I. and M.E., 1962. 'Grammatical categories as indicated by Gadsup noun affixes', Oceania Linguistic Monographs, no.6, pp.44-63.


*Hanna, W.A., 1966. 'Australian Papua and New Guinea - Part I: policy for decolonization; Part II: Port Moresby, the Assembly and the University; Part III: Rabaul and Goroka', American Universities Field Staff Reports Service, South East Asia series, vol.24, nos 11, 12, 13.


4. Gulf District

Research

Mr. J. Harris, now lecturer in linguistics, the Australian National University, studied the Kiwaunui dialect of the Kiwai language group at Urama in January and February 1964. He returned to study Urama grammar from November 1965 to July 1966.

Mr. G.R. Hogbin (see Eastern Highlands, Morobe and Northern Districts) began a study in 1962 of indigenous land settlement and village participation in the monetary economy under the direction of Mr. F.K. Fisk, then senior fellow in economics at the same university. Financial assistance was granted by the rural credits development fund of the Reserve Bank of Australia, and the main focus of the project was in the Eastern Highlands District. Mr. Hogbin worked from February to June 1963 on a study of the Cupisi rubber project at Kerema.

Mr. P.G. Irwin, lecturer, Department of Agriculture, University of Newcastle, New South Wales, visited the Gulf District in January 1968 to study processing and marketing organizations among the Elema tribe. In particular, he studied the Murua agricultural settlement, and the Cupola and Cupisi native rubber holdings.

Miss D. Ryan, then research student, Department of Anthropology, University of Sydney, investigated aspects of social change among the Toaripi people in the Kukipi area from August 1961 to March 1962, with revisits in 1963 and 1964. She also studied Toaripi-speaking immigrants in various towns (see Central, Madang, Morobe, New Britain and Sepik Districts).

Dr. T.G. Schultze-Westrum, Mrs. S. Schultze-Westrum and Mr. W. Schiefenhövel (see Central and Southern Highlands Districts) undertook zoological and anthropological research among the Kerewo, Turama, Urama, Gope and Era people of Kikori sub-district from January to May 1966.

Miss J. Whiteman (see Central, Eastern Highlands, Mile Bay, Morobe and Sepik Districts) did a nutrition survey in the Kerema Bay census division and at Guari in the Kikori sub-district in December 1965, and particularly studied the food habits of these people whose staple food is sago.

Bibliography


5. Madang District

Research

The field project, 'Language and the perception of a natural environment', begun in 1960 by Dr B.G. Biggs, then senior lecturer in Maori studies, University of Auckland, and Dr R.N.H. Bulmer, then lecturer in social anthropology at the same university, continued through the period among the Karam people of the upper Kaironk Valley in the Madang and Western Highlands Districts, and was extended in 1966 to the Yhal Kopon people of the lower Kaironk Valley. The general foci of the project were: (i) the study of ecology, social structure, communication patterns and leadership, (ii) the study of lexical domains, particularly folk-taxonomies relating to the natural environment, the etiology of disease, and categories of social organisation, and (iii) descriptive linguistic research essential for the adequate treatment of (i) and (ii). Following four months' initial field study of Karam and exploratory survey of other languages of the Kaironk, Simbai and middle Jimi Valleys in 1960, Dr Biggs did two months' further field work at Kaironk in 1963-64. Dr A.K. Pawley, then lecturer in linguistics, University of Auckland, did nine months' field work on the Karam language, and further survey work in Kopon and Arami (or Wiyaw) in 1963-64 and 1965. In 1966 he completed his Ph.D. thesis on a grammatical analysis of Karam. In 1967, Dr Pawley worked in New Zealand on Karam semantics. Dr Bulmer completed approximately twelve months' field work among the Karam in 1960, 1963-64, 1965-66 and 1967-68, concentrating on social organisation, ecology and ethnobiology. In December 1967 and January 1968 he studied preparations for the House of Assembly elections. Miss I. Riebe, field assistant in social anthropology, worked in the Kaironk Valley for eight months in 1965-67 (see also New Britain District). Dr G.G. Jackson, graduate student in anthropology,
University of Auckland, commenced an ethnographic study of Yhal, a Kopon-speaking community of the lower Kaironk Valley in 1966, concentrating on social structure and beliefs and practices concerned with health and disease (see also Morobe District). The project is expected to continue into 1969-70. Dr Biggs is currently professor, Department of Linguistics, University of Hawaii, and will return to the University of Auckland as professor of anthropology in 1969; Dr Bulmer is now professor of social anthropology, University of Papua and New Guinea; Dr Pawley is senior lecturer in linguistics, University of Papua and New Guinea; Dr Jackson is a qualified medical practitioner and a Ph.D. candidate in social anthropology at the University of Auckland; and Miss Riebe is tutor in the history of science and technology, University of Papua and New Guinea.

Mr J.M.A. Chappell (see Eastern Highlands and Morobe Districts) made a petrographic study of stone implements and native quarries in 1964 as a contribution to the project 'Language and the perception of a natural environment'.

Miss L. Hogg, graduate student in anthropology, London School of Economics, planned to begin a study in April 1968 in the Ambenob area of the Madang District on the perpetuation of myth, the channels along which it travels and the different phases of its development in any particular place. The project will continue until June 1969.

Mr A.M.G. Jarman, senior tutor in government, University of Queensland, began a study of the 1968 House of Assembly elections in Mambuso open electorate in early 1968. Mr Jarman is also writing a Ph.D. thesis entitled 'Administrative preparation for independence in three Pacific Ocean colonial systems: Papua-New Guinea, Fiji and the British Solomon Islands Protectorate'.

Dr P. Lawrence, professor of anthropology and sociology, University of Queensland, revisited the Ngaing and Garia peoples in July and August 1965, particularly studying socio-political structure and trade systems. He studied the 1968 House of Assembly elections in the Rai Coast open electorate during January and February 1968.

Miss R. McSwain, senior demonstrator, Department of Anthropology and Sociology, University of Queensland, began work in December 1966 on a study of the reactions of two linguistic groups on Karkar Island - Takia and Waskia - to the Administration programmes of economic, political and educational development. She also began a study of the 1968 House of Assembly election campaign on Karkar Island in December 1967.

Professor K. Numazawa, professor of cultural anthropology, Nanzan University, Nagoya, Japan, worked among the Kobon and Karam tribes in the Simbai area of the Schrader Mountains from July to October 1966, conducting research into their religion, mythology, age-classes and initiation.

Miss D. Ryan (see Central, Gulf, Morobe, New Britain and Sepik Districts) worked among Toaripi-speaking immigrants in Madang during August 1965.

Dr J.M. Stanhope, epidemiologist, Department of Public Health, Konedobu, studied the health of village communities at Alome and Bogia in relation to traditional beliefs and practices, and the impact on them of mission and government teaching in 1961. Since 1962, he has returned every six months for further study (see also (West) Sepik District and Demography).

Mr M. Stevenson, teaching fellow in anthropology, University of Sydney, studied political change and development among the Amele people near Madang during the first six months of 1965, and for the same period in 1966 studied urbanisation, politics and trade unionism in the township of Madang. The study of urbanisation continued from August 1967 to January 1968.

Mr W. Straatmans (see Eastern Highlands, Morobe, Western Highlands, New Britain and Sepik Districts and Economics) worked on Karkar Island from December 1963 to March 1964 on the study of indigenous cash cropping being directed by Dr R.T. Shand. A return visit was made in 1966 for further study.

Under the direction of Dr A.P. Vayda, associate professor of anthropology, Columbia University, New York, field work was conducted from 1962 to 1965 in the Bismarck Mountains on the research project, 'Human ecology in the New Guinea rainforest'. Also working with Dr Vayda in 1962 and 1963 were Mrs Vayda, Dr and Mrs R.A. Rappaport and Mrs A. Jablonko,
all then graduate students in anthropology at Columbia University. Research was conducted briefly among the Wanuma, Atitau and adjacent peoples in the Adelbert Mountains and for more than a year among the Maring-speakers who are found between the Simbai and Jimi Rivers in the Madang and Western Highlands Districts. Dr and Mrs Vayda returned to study subsistence, health and social structure among the Maring from June to October 1966. From June 1964 to June 1965, Mr W.C. Clarke, assistant professor of geography, California State College, Hayward, Cal., studied ethnobotany and cultural ecology among the Maring as part of his project, and during the latter six months of 1964, Dr J.M. Street, associate professor of geography, University of Hawaii, studied the agriculture of the Maring people. From April to September 1967, Dr Street studied the impact of anthropogenic savanna vegetation on the soil and also plant succession in anthropogenic savanna.

Father J.A. Z'graggen S.V.D., post-graduate student in linguistics, the Australian National University, worked from August 1964 to February 1966 on comparative and descriptive linguistic studies of the Mugil, Bogia, Manam and Ramu areas. In 1967 he conducted linguistic surveys of the central north-east coast of New Guinea around Madang and Bodia and also of the Ramu Valley.

Bibliography


6. Manus District

Research

Dr R.G. Crocombe (see Central, Morobe and Northern Districts) made a study of the M'buke Island co-operative plantation in the Manus group in late 1963 in connection with his comparative study of land tenure systems and policies.

The New Guinea-Admiralty Islands Expedition of the American Museum of Natural History, New York, conducted research on the project, 'A field study in cultural systematics' from 1963 to 1966. The principal investigator was Dr Margaret Mead, curator of ethnology at the Museum, with Dr T. Schwartz as co-principal investigator and Dr L. Schwartz as research associate. Support came from the Museum and the National Institute of Mental Health. The study had as a major aim a 'transformal ethnography' of the Admiralty Islands (Manus) as an areal culture. In this aspect it focussed on the development, differentiation and integration of the various cultural-linguistic groups of the archipelago. A wide range of linguistic, ethnographic and psychological materials were collected for all Admiralty Island groups to be added to those collected by Dr R. Fortune and Dr Mead in 1928, by Dr Mead in 1953 and by Dr T. Schwartz in 1953-54. In addition, the contemporary situation of the Admiralty people was restudied to add to the study carried out by Dr Mead in 1953, and by Drs Mead and Schwartz since then. Dr Mead made field trips to Peri village (Manus) in 1964 and 1965, and revisited briefly in August-September 1967 for further restudy and to make an educational television film on the relationship of anthropological field work to ekistics (see also (East) Sepik District). Drs T. and L. Schwartz conducted a survey of all linguistic-cultural groups in the Admiralty Islands from August 1963 to May 1966 and returned again from June to August 1967. In addition to the areal ethnography, Dr T. Schwartz continued his studies of acculturative cults and movements in the Admiralties, with two brief trips to New Hanover to extend this work to the President Johnson cult there. In addition, the programme of psychological testing begun in 1953 was continued with the same individuals being retested fifteen years later and by extending the test programme to new groups and to school children. In addition, Manus kinship has been re-studied by Mead and Schwartz including, in 1967, a study by Schwartz of the kinship relations in a series of revived ceremonial-economic exchanges. Dr L. Schwartz did studies in two north coast Matankor villages from September 1963 to May 1965, has since been preparing the materials of the areal ethnography and is working on a monograph on Admiralty Island mythology.

A second phase in the study of cultural systematics was to be conducted at a new site in the upper Sepik area in which it was hoped to compare two relatively unacculturated groups. After three exploratory trips by T. Schwartz, this second phase was discontinued and additional time was allocated to the Admiralty Island study (see Sepik District).

Bibliography


7. **Milne Bay District**

**Research**

Mr B.J. Eglolf, research scholar, Department of Anthropology (prehistory), the Australian National University, began an archaeological reconnaissance of the south-east coast of Papua in November 1967. The survey centred in the Collingwood Bay and Goodenough Bay area with the purpose of determining its archaeological potential. A number of sites yielding quantities of ceramics have been located and various carved megaliths recorded. The Trobriand Islands were included in the survey in order to gain an impression of the prehistoric contacts between mainland Papua and the Trobriand Island group.

Dr R. Fink (see Central District) studied the House of Assembly election campaign in the Esa'ala-Losula electorate during the first three months of 1964.

Mr I. Grosart, then senior lecturer in government, the Australian School of Pacific Administration, Sydney, and now lecturer in government, the University of Sydney, studied the House of Assembly election campaign in the Milne Bay electorate from January to March 1964. Mr Grosart proposed to return to Milne Bay for a study of the relationship between church membership and the acquisition of secular leadership skills in early 1968 (see also (East) New Britain District).

Mr C.A. Key, research fellow in environmental archaeology, the Australian National University, studied methods of pottery manufacture, sources of raw materials, and trade routes in the Southern Massim area in August and September 1967.

Mr P.K. Lauer, Department of Anthropology (prehistory), the Australian National University, began a study in late 1967 in the Goodenough and Amphlett Islands area of modern pottery manufacture and trade within the Kula cycle. A further study was planned from March to June 1968.

Mr K. Menzie, then field assistant, New Guinea Research Unit, the Australian National University, and now at the London School of Economics, visited the Trobriand Islands in June 1967 in connection with a study of the production and marketing of artefacts, supervised by Dr R. Kent Wilson, senior research fellow of the New Guinea Research Unit (see also Sepik District).

Dr E. Schlesier, now director, Institut für Volkerkunde der Universität, Göttingen, made a general anthropological survey of the Me'udana people of Normanby Island from September 1961 to August 1962, with special emphasis upon the social structure and tabu system. Comparative studies were made of other peoples on the island, and word-lists of three Normanby Island dialects were compiled.
Mr W.E. Tomasetti, then research fellow, University of Papua and New Guinea, studied the
elections to the 1968 House of Assembly in the Alotau open electorate during January and
February 1968 (see also Education).

Dr O. van Rijswijck (see Central and New Britain Districts) began a study in December
1967 of the 1968 House of Assembly election campaign in the Kula open electorate.

Dr J. Villemont, film-maker and lecturer at the Connaissance du Monde, Paris, spent
four months in late 1966 making an anthropological film of the daily life of the Kiriwina
people of the Trobriand Islands, entitled 'Les seigneurs des mers du sud'.

Dr R.J. Walsh (see Eastern Highlands District), together with Sir Macfarlane Burnet and
Professor P. Fenner, visited the Trobriand Islands in November 1966 to study 'spotted
albinism', a condition in which the genetic form of albinism appears to be associated with
somatic mutation back to the normal degree of pigmentation. The pigmented areas vary in
size and shape but generally are irregular and small.

Miss J. Whiteman (see Central, Eastern Highlands, Gulf, Morobe and Sepik Districts)
visited the Trobriand Islands in July 1966 to investigate the effect of a draught on food
habits and nutrition. This involved investigating feeding practices, dietary intake and
beliefs relating to food. Information was also obtained on family life and social change.

Mr M.W. Young, research scholar in anthropology, the Australian National University,
conducted research from August 1966 to August 1967 on the sociocultural systems of the
Kaluana and Bwaidoga peoples of Goodenough Island in the D'Entrecasteaux Archipelago,
Special emphasis was given to problems of leadership, social control and the sociology of
sorcery. Investigations were to continue along similar lines in 1968. Mr Young also
studied preparations for the 1968 House of Assembly elections in the Esa'ala open electorate
in late 1967. In conjunction with Mr Tomasetti and Dr van Rijswijck (see above) he also
studied the Milne Bay regional electorate campaign.

Bibliography


   -- 1965. 'Essai de classification des peuplades de Papouasie', Journal de la Société des Oceanistes, no.21, pp.79-104.


-- 1965. 'A Papuan election campaign: what people expected of their elected representative'. Paper presented to second seminar of the Australian Association for Cultural Freedom, Port Moresby.


Staalsen, P.H. and Lithgow, D., 1965. 'Languages of the D'Entrecasteaux Islands'. Department of Information and Extension Services, Port Moresby.


8. Morobe District

Research

Mr J.M.A. Chappell (see Eastern Highlands and Madang Districts) worked for four months in 1965 on the north coast of the Huon Peninsula (Finschhafen to Wasu) and hinterland ranges and in the foothill ranges on the north side of the Markham Valley. He studied evolution of parts of the Huon Peninsula during the Quaternary era, and commenced an analysis of the tectonic history of the region. He returned to the field again from April to November 1966 to study the extensive set of raised coral beaches on the northern flank of the peninsula, with a view to analysing in detail the pattern of Upper Quaternary uplift, and to further develop mathematical models of drainage basin evolution, using the ideal environment of the terraces as the basis for empirical comparison with theory. In 1967 Mr Chappell, now lecturer in geomorphology, the Australian National University, undertook an extensive C-14 dating programme on the Huon terraces. This project is now being extended into U-Th dating with staff of the Department of Geophysics, the Australian National University.

Dr R.G. Crocombe (see Central, Manus and Northern Districts) made a study of the Erap mechanical farming project in the Markham Valley in September and October 1962. He was assisted in the field by Mr G.R. Hogbin (see Eastern Highlands, Gulf and Northern Districts) and Mr M. Rimoldi (see Bougainville and Northern Districts).

Dr P.J.C. Dark, professor of anthropology, Southern Illinois University, Carbondale, U.S.A., and Mr J.M. Maring, instructor in anthropology, made a survey of the Mandok people of the Siassi Islands in July 1964, prior to their study of the integration of art and language in culture (see also New Britain District).

Mr D. Davis, linguist-translator, Summer Institute of Linguistics, has made periodic visits to the Wantol people since 1958 to analyse and describe the Wantol language and its dialects, to make primers and introduce literacy to the people in the vernacular, investigate the kinship and social system, record and transcribe folk tales, compile a dictionary of the Wantol language, and conduct a dialect-geography survey. Further visits were planned for 1968.

Dr I.J. Fairbairn, lecturer in economics, University of Newcastle, New South Wales, studied the development of the indigenous-owned company known as Namasu, and the nature and extent of New Guinean participation in it, from December 1966 to the end of January 1967 (see also Western Highlands District).

Dr H. Fischer, then lecturer at the Württembergisches Institut der Universität, Tübingen, West Germany, restudied the Yeghuje (Kukukuku) of the upper Tauri River whom he first visited in 1958, for eight months in 1965. He concentrated in particular on questions of land, agriculture and social structure, and also studied the language, mythology and cargo ideas of the Wampar (Laewomba) of the middle Markham River area.
Mr M. Freedman, then graduate student in anthropology, University of Michigan, conducted research from October 1965 to September 1966 into the social and political organisation of the Siassi Islanders, particularly the Mandok. This research was undertaken with the support of the National Science Foundation of the United States. Dr Freedman is now assistant professor in anthropology at Syracuse University, New York.

Mr E. Giles, then graduate student and teaching fellow, Peabody Museum, Harvard University, worked from September 1962 to September 1963 on a physical anthropological and genetic study by means of blood samples, measurements, dermatoglyphics, etc., of groups living in the Markham Valley under different ecological and altitudinal conditions. Accurate and complete genealogies were an important focus of his research plan. From August 1967 to August 1968, Dr Giles was visiting fellow, Department of Demography, the Australian National University. Dr Giles planned to return for further demographic and human genetic research among the Atsera-speaking people (Upper Markham Valley) and Waffa-speaking people (eastern edge, Eastern Highlands) from April to June 1968 (see also Bougainville District).

Mr T. G. Harding, then graduate student in anthropology, University of Michigan, studied trade relationships between villages and intercultural relations generally at Sio on the northern coast of the Huon Peninsula, at Komba and Selepet on the mainland and at villages on the Siassi Islands from late 1963 to late 1964. Dr Harding is now associate professor of anthropology, University of California, Santa Barbara. He returned in January 1968 for a three months' study of the 1968 House of Assembly elections in the Kabwum open electorate of the Morobe District.

Mr A. M. Healy, then research fellow, Department of Pacific History, the Australian National University, visited the District in October and November 1962 to gain information for a historical study of the development of the region, particularly of the Bulolo Gold Dredging Company. Dr Healy is now lecturer in history, Wollongong University College, New South Wales (see also Politics).

Mr B. A. Hooley, linguist, and now associate director, Summer Institute of Linguistics, studied the language of the Buang people in the Snake River Valley during 1964 and 1965, when he also made a survey of the languages of the middle and lower Watut. From August to October 1966, Mr Hooley was engaged primarily in a trial literacy programme among the Buang, translation work and some grammatical research. In 1967 he co-ordinated a linguistic survey of the entire Morobe District.

Mr G. G. Jackson (see Madang District) studied the effects of cattle and coffee on the land tenure system of Lae sub-district from February to June 1964.

Mr K. McElhanon, then a linguist, Summer Institute of Linguistics, gathered language data during field trips in 1965 and 1966 on the non-Austronesian languages of the Huon peninsula in the Fischhafen sub-district. The people he studied were the Timbe, Selepet, Komba, Buram, Tobo, Mindik, Kosorong, Hube, Dedui, Mape and Yupna. In March and April 1967, he made a linguistic survey and gathered more data in the Selepet language. Mr McElhanon is now a research scholar in linguistics at the Australian National University.

Mr D. J. O'Shea, lecturer in English language, University of Papua and New Guinea, began a descriptive study in July 1967 of the Bukawa language of the Huon Gulf area. Further visits were planned from 1968 to collect material in Yabem and Labu languages.

Mr R. B. Rofe, then graduate student in geography, Victoria University of Wellington, New Zealand, studied urbanisation in the township of Lae in 1963 and 1964.

Miss D. Ryan (see Central, Gulf, Madang, New Britain and Sepik Districts) worked among Toaripi immigrants in Lae from December 1964 to June 1965.

Mrs G. Sankoff, graduate student in anthropology, McGill University, Montreal, worked from September 1966 to July 1967 among the Buang people of Mumeng sub-district on research into social aspects of multilingualism and communication problems involved in cultural and social change in a multilingual society. During this period she also investigated the organisational problems of entrepreneurs, and more especially, in March and April 1967, the organisation and understanding of the Namasu company at the village level. This project was carried out for the New Guinea Research Unit of the Australian National University.
Mrs Sankoff returned for further work on the Buang, as well as a linguistic survey of Mumeng and inland areas, from July to August 1968.

Mr W. Straatmans (see Eastern Highlands, Madang, New Britain, Sepik and Western Highlands Districts and Economics) completed a survey of cash cropping in the Wain, Erap and Naba census divisions of the Boana region in early 1963, and returned for further study there in 1966. In 1967, he studied the indigenous market at Lae and interviewed the Boana people as well as people from Mumeng, Merkham, Butibum and Salamaua, concerning its operation and prices.

Mrs K. van der Veur and Miss P. Richardson (see Central and New Britain Districts) worked in the township of Lae from February to April 1964 on a study of the local people's concept of education and the role of indigenous school-teachers in the urban community.

Dr P.W. van der Veur (see Central District) studied the 1964 House of Assembly elections for Morobe District electorates from January to April 1964. Dr van der Veur is now professor of government and director of the Southeast Asia programme at Ohio University.

Mr and Mrs J.P. White (see Central, Eastern Highlands and Western Highlands Districts) made an archaeological survey in the Morobe District early in 1964.

Miss J. White man (see Central, Eastern Highlands, Gulf, Milne Bay and Sepik Districts) investigated the incidence and causes of infant malnutrition at Kaiapit in January 1966. Information was also obtained on social and family life.

Bibliography


*Fischer, H., 1962. 'Oberflächenfunde und rezente TMpferei am unteren Watut River (Ost-
Neuguinea)', Abhandlungen und Berichte des Staatlichen Museum für Völkerkunde, vol.21,

* -- 1963. Watut: Notizen zur Kultur eines Melanesien Stammes in Nordost-Neuguinea,


-- 1966. 'Wampet, Mumeng und Labu: drei kurze Wörterlisten', Anthropos, vol.61,
pp.878-83.


Giles, E., 1966. 'Genetic variation in New Guinea: magnitude and mechanisms in Morobe',

Giles, E., Ogan, E., Walsh, R.J. and Bradley, M.A., 1966. 'Blood group genetics of natives
in the Morobe District and Bougainville, Territory of New Guinea', Archaeology and
Physical Anthropology in Oceania, 1:2:135-54.

Giles, E., Curtain, C.C. and Baumgarten, A., 1967. 'Distribution of B thalassemia trait
and erythrocyte glucose-6-phosphate dehydrogenase deficiency in the Markham River

*Girard, F., 1967. 'Les gens de l'ignorance. Les Buang de la vallée du Snake, District de

Gorman, J.G. and Kidson, C., 1962. 'Distribution pattern of an inherited trait, red cell
enzyme deficiency in New Guinea and New Britain', American Journal of Physical

Harding, T.C., 1965. 'The Rai Coast open electorate' in The Papua-New Guinea Elections
1964 (D.C. Bettison, C.A. Hughes and P.W. van der Veur, eds), pp.194-211. The
Australian National University Press, Canberra.


-- 1967. 'Money, kinship and change in a New Guinea economy', Southwestern Journal of

-- 1967. 'Ecological and technical factors in a Melanesian gardening cycle', Mankind,


Guinea Research Bulletin, no.15.


-- 1967. 'Pagan religion in a New Guinea village' (reprinted from Oceania, vol.18, 1947)

Hooley, B.A., 1964. 'A problem in Buang morphology', Linguistic Circle of Canberra Publica-
tions, series A: occasional papers, no.3, pp.35-41.


no.8.
9. New Britain District

Research

A three-year study, 'Psychiatry in New Britain', began in October 1965 in the Gazelle Peninsula to ascertain the nature and incidence of psychiatric disorders among the Tolai and immigrant indigenes. It is under the joint direction of Dr J.E. Cawte, associate professor, School of Psychiatry, University of New South Wales, who makes periodic visits to the area, and the Papua-New Guinea Department of Public Health, with additional funds from the National Institute of Mental Health, U.S.A. Dr J.O. Hoskin, then specialist medical officer (psychiatry) in the health department and a post-graduate student in the School of Psychiatry at the University of New South Wales, began two years' research at Kokopo in November 1965 into the requirements for psychiatric services in a developing country, the effect of social institutions on individual adjustment and the general problem of classifying psychiatric disturbances. In 1967, he particularly studied the Tolai, the Arawe, expatriates, and immigrant labourers of Rabaul. In May and August 1966 he made a special study of suicide in Kandrian and in February 1967 he made a short visit to the Ulawan area to collect data on reactions to volcanic eruption. Also in the field was a social worker, Miss G. Cuthbertson. Miss I. Riebe (see Madang District) assisted in the early stages of the project, studying Tolai culture of particular relevance to individual adjustment and doing a review of Tolai literature.
Dr A. Chowning, then assistant professor of anthropology, Barnard College, Columbia University, New York, and Dr J. Goodale, assistant professor in anthropology, Bryn Mawr College, Pennsylvania, worked in New Britain for varying lengths of time between June 1962 and August 1964. Dr Chowning revisited Lakalai (West Nakanai) in 1962 to clarify some points on social and political organisation, language and folklore, before publishing papers based on field work by herself and other members of the 1954 University of Pennsylvania expedition led by Dr W.H. Goodenough. Dr Chowning was joined by Dr Goodale in July 1962, and they spent two months on preliminary work in two adjacent linguistic groups, Sengseng and Kaulong, in Pasismanaua census division in West New Britain. A further thirteen months' field work was completed in July 1964. Dr Chowning studied the social organisation, religion, language and acculturation of the Sengseng, while Dr Goodale made a general ethnographic study of the Kaulong, with emphasis on social organisation and religion. Research was also done on other languages of south-west New Britain. Dr Chowning wrote in 1963 of an interesting archaeological phenomenon in the form of large numbers of elaborately chipped flints which seem unrelated to the present cultures of the area. Most of these were handed over to the Australian National University, and one of their archaeologists, Mr R.J. Lampert (see Central, (East) Sepik and Western Highlands Districts and Archaeology and prehistory) joined Dr Chowning in 1966 to look at some of the sites.

Dr Chowning, now senior research fellow, Department of Anthropology and Sociology, the Australian National University, returned for further study of the Sengseng from January to April 1966. From April to June 1966 she made a preliminary investigation of social organisation, ritual and acculturation among the Kombe (Kove) of Talasea sub-district in West New Britain and planned to return for further research among the Kove and Lakalai in January 1968. Dr Goodale returned in September 1967 for a year's further study of acculturation among the Kaulong living nearer the coast. In late 1967, Drs Chowning and Goodale studied preparations for the 1968 House of Assembly elections in the New Britain regional electorate.

Dr P.J.C. Dark (see Morobe District), accompanied by Mr J.M. Maring, made a preliminary survey during July and August 1964 of the Kilenge, Kaliai and Barian areas of western New Britain and the Mandok of the Siassi Islands, Morobe District. The aim was to locate one or two peoples where ethno-aesthetic research could be pursued into the integration of art and language in culture, with particular attention to be given to cultural ecology as well as ethnography. The Kilenge people were finally chosen and Dr and Mrs Dark conducted research among them from June 1966 to April 1967. Co-investigating in the project was Dr A.A. Gerbrands, professor of cultural anthropology, University of Leiden, and adjunct professor, Southern Illinois University, who studied the cultural background of art, and the position and personality of the artist, from January to June 1967 (see also (East) Sepik District). Dr Gerbrands had previously conducted ethno-aesthetic field work among the Asmat of Irian Barat in 1960-61. Particular attention was given by Drs Dark and Gerbrands to visual documentation, both 16mm, movie and still films being used extensively. The project was sponsored by the National Science Foundation and Southern Illinois University.

Mr and Mrs C. Hurd (see Bougainville District) conducted a language and dialect survey of all the language groups in the Cape Hoskins patrol area in 1962.

Mr E.A. Polansky, then research scholar in Pacific history, the Australian National University, studied the history of the township of Rabaul and contemporary intertribal and interracial relations there from December 1964 to April 1965.

Miss D. Ryan (see Central, Gulf, Madang, Morobe and Sepik Districts) studied Toaripi-speaking immigrants in Rabaul for two months in late 1965.

Dr S. Singh, senior lecturer in economics, University of New England, New South Wales, began three months' field research into land resettlement in the Gazelle Peninsula in December 1965. He was assisted by a grant from the New Guinea Research Unit of the Australian National University (see also Central District and Economics).

Mr J. Specht (see Bougainville and Central Districts) made a preliminary archaeological survey of Watom Island, Rabaul, in October 1965. He returned in 1966 to excavate here and to make a brief visit to Talasea. Further work was undertaken from April to November 1967. In May 1967 he visited Kilenge, West New Britain, to study two series of rock engravings discovered in 1966, in conjunction with Professors Dark and Gerbrands. A further study was intended in 1968.
Mr W. Straatmans (see Eastern Highlands, Madang, Morobe, Sepik and Western Highlands Districts and Economics) made a survey of indigenous cash cropping on the Gazelle Peninsula from late 1964 to May 1965 as part of the research programme conducted by Dr R.T. Shand. Further studies were also made in 1966. Mr Straatmans intended to study the nucleus estate development of palm oil in the Cape Hoskins area in 1968.

Mrs K. van der Veur and Miss P. Richardson (see Central and Morobe Districts) worked in the town of Rabaul during July and August 1964 in connection with the New Guinea Research Unit's research project on education in urban areas.

Miss O. van Rijswijck (see Central and Milne Bay Districts) spent two months in late 1964 studying the resettlement of the Nakanai-Mamusi peoples at Silanga in West New Britain.

(i) East New Britain District

Dr A.L. Epstein, professorial fellow, Department of Anthropology and Sociology, the Australian National University, studied the 1968 House of Assembly elections in the Rabaul open electorate from December 1967 to March 1968, in conjunction with Dr T.S. Epstein, visiting fellow with the same department, and Mr I. Grosart (see below and Milne Bay District).

Mr I. Grosart (see Milne Bay District) studied church membership and the acquisition of secular leadership skills among the Tolai of the Gazelle Peninsula in January and February 1967, and planned to return for further research on this topic in 1968.

Dr M. Panoff, research fellow, Centre National de la Recherche Scientifique, conducted anthropological research among the Maenge people of south-east New Britain from November 1966 to November 1967, with special emphasis on social groupings and conceptual systems. In December 1967, as visiting research fellow, New Guinea Research Unit, the Australian National University, Dr Panoff began a study of intertribal relations among the Maenge, Mamusi and Kol people.

Dr R.F. Salisbury (see Bougainville, Central and Eastern Highlands Districts) has continued the analysis and writing up of field materials collected among the Tolai between 1957 and 1962, centring on the interrelationship between political and economic development. He spent the period between May and December 1967 in Port Moresby investigating the relationships between the Tolai area and Port Moresby. He also revisited the Tolai area to evaluate current economic and political changes.

Mr R.M. Sherwin, research officer, the Reserve Bank of Australia, began a study in 1967 on monetary transition among the Tolai with particular reference to the development of savings and loan societies on the Gazelle Peninsula.

(ii) West New Britain District

From October 1966 to August 1967, Mr D.R. Counts, graduate student in anthropology, University of Southern Illinois, worked primarily among the Kaliai or Lusi-speaking peoples of five coastal villages of western New Britain on language and social organisation, with particular reference to linguistic and cognitive aspects of law and government; similar, though less intensive research was conducted among four interior language groups: Anem, Mok, Aria and Lamogai. Mrs D.E. Counts, of the same department, worked from October 1966 to June 1967 on political change (particularly with the establishment of the Gloucester local government council), and the effect of the luluai system on the traditional political system of the Kaliai.

Bibliography

Allen, J. and Hurd, C., 1963. 'Languages of the Cape Hoskins patrol post division of the Talasea sub-district, New Britain'. Department of Information and Extension Services, Port Moresby.


-- 1966. 'The choice of kin roles in Lakalai'. Department of Anthropology and Sociology, the Australian National University, Canberra, 5 December 1966. Roneod.
-- 1967. 'Lakalai religion and world view and the concept of "seaboard religion"'. Roneod.


*Dark, P.J.C., 1965. 'In search of art in New Guinea: the Kilenge of western New Britain'. Unpublished MS.


-- 1964. 'Personal capital formation among the Tolai of New Britain' in Capital, Saving and Credit in Peasant Societies (R. Firth and B.S. Yamey, eds), pp.53-68. Aldine Publishing Co., Chicago.
-- (n.d.). 'From shell money to cash: capitalism primitive and modern'. Research School of Pacific Studies, the Australian National University, Canberra. Roneod.


10. **New Ireland District**

Research

Miss D.K. Billings, then senior tutor in anthropology, University of Sydney, studied leadership in Mangai village, and the Johnson cult in Lavongai village, New Hanover, from June 1966 to September 1967. She is now visiting lecturer (anthropology) at the University of Minnesota.

Mr D. Heintze, of the Völkerkundliches Institut der Universität, Tübingen, West Germany, began a general ethnographical study in November 1967 on the north-east coast of New Ireland; particular attention was being paid to malanggan art.

Mr P. Lomas, then post-graduate student, Simon Fraser University, British Columbia, undertook research during 1967 on sociological aspects of co-operatives in the Kavieng area.

Dr T. Schwartz (see Manus and Sepik Districts) visited New Hanover in June 1966 for a brief investigation of the Johnson cult, and returned for further study from June to August 1967.

A number of social work students entering their final year at the University of Sydney studied the impact of the Kop Kop community centre on surrounding villages, from December 1965 to February 1966.

**Bibliography**


11. **Northern District**

**Research**

Mr P.N. Aitken, then vacation scholar, New Guinea Research Unit, the Australian National University, worked from January to March 1967 among the Orokaiva of Popondetta sub-district, in an attempt to account for the varying levels in the acreage per man of cash crops (coffee, cocoa, coconuts and rubber) planted by Orokaiva on village land.

From August to October 1965 the Bureau of Agricultural Economics, Canberra, conducted an economic survey among expatriate cocoa growers in the Popondetta area, in order to trace the history and development of cocoa growing there, and examined annual production costs and income, capital requirements and factors influencing production.

Mr R.J. Cheetham, then post-graduate student in agriculture, University of Sydney, conducted research into land settlement as a technique of indigenous economic development in the Popondetta area from 1962 to 1964.

Dr R.G. Crocombe, then research officer, New Guinea Research Unit, the Australian National University, studied land tenure systems, cash cropping and entrepreneurship among the Orokaiva people of the Popondetta area from June to August 1962 and again in 1963. He was assisted by Miss D. Howlett (see Eastern Highlands District) and Mr G.R. Howbin (see Eastern Highlands, Gulf and Morobe Districts). In December 1965, Dr Crocombe revisited the Orokaiva area where he supervised two vacation scholars with the New Guinea Research Unit:
Mr W.J. Oostermeyer, who collected data on Orokaiva entrepreneurs, and Mr D. Morawetz (see also Voluntary aid), who conducted research into land tenure conversion from customary to individual land title, with special emphasis on the costs of conversion, the attitudes to conversion of the Ombisusu people and its effects on their social and work organisation. Dr Crocombe paid a brief visit to the Northern District in 1966 in connection with his land tenure and resettlement study (see also Central, Manus and Morobe Districts).

From July to September 1963, four officers (petrologist, plant ecologist, geomorphologist and forest botanist) of the CSIRO Division of Land Research and Regional Survey made an integrated study of land resources in the Safia-Pangani area (2,500 sq. miles).

Miss M.J. Cullin, then research fellow, University of Washington, Seattle, worked in 1962 among the Omio people of the Managalas area near Popondetta on their political, economic, religious and social life with a special interest in socialisation processes and political roles.

Mr R.B. Dakeyne (see Bougainville District) studied the changing pattern of settlement among the Orokaiva in the Yega area, and in particular the impact of cash cropping on the traditional economy, between November 1962 and February 1963. Return visits for further study of changes in land use and land settlement were made during July and August 1964.

Mr T.E. Dutton (see Central District) surveyed the Aomie, Managalasi and Barai languages during the period March 1966 to March 1967 in connection with his comparative study of the Koiarian language family of Central Papua. Further studies were planned from April to June 1968.

In May 1964, Dr D. Howlett (see Eastern Highlands District) studied European cocoa plantations operated under the ex-servicemen's credit scheme.

Mr B.E. Jinks, then senior lecturer in government, Administrative College of Papua and New Guinea, Port Moresby, spent brief periods in May and November 1966 in the Popondetta and Kokoda areas studying the development of, and attitudes towards, local government in the Northern District. In 1967 he worked on this topic in Port Moresby (see also History).

Mr G. Kearney, then research fellow in psychology, University of Queensland, studied the cognitive capacity of people from several Orokaiva tribes for four months in 1963 (see also Medicine).

Mr P.A. Krinks and Mr E.W. Waddell, then research assistants, New Guinea Research Unit, the Australian National University, worked from early 1964 until January 1965 on the inter-relationships of cash cropping and subsistence agriculture in the Orokaiva villages of Sivepe and Inonda. Their work involved a detailed study of work organisation and patterns of acquisition and disposal of goods, services and cash. At the same time, Mrs V. Waddell enquired into the effects of schooling on rural family life and the changing role of parents as socialising agents (see also Western Highlands District).

Mr M. Rimoldi, then research assistant, New Guinea Research Unit, the Australian National University, studied land tenure in Sivepe village on the slopes of Mt Lamington in 1963; in February 1964 he visited the Aiga tribe in connection with the same study (see also Bougainville and Morobe Districts).

Mr E.G. Schwimmer, then research assistant, University of Oregon, conducted research from July 1966 to June 1967 on the social consequences on the eruption of Mt Lamington, as part of the project, 'A comparative study of cultural change and stability in displaced Pacific communities', directed by Dr H.G. Barnett, professor of anthropology, University of Oregon. At the same time, Mr Schwimmer made a study of traditional and emergent ideologies and exchange in the social relations of the Orokaiva. In addition, with a grant from the Australian National University, he recorded fifty Orokaiva literary texts, which were transcribed in the Orokaiva language and translated, and will be analysed and published in due course. Dr Schwimmer is now assistant professor in anthropology, University of Toronto.

A number of social work students entering their final year at the University of Sydney studied the change in work patterns of women when they moved from a village to a block settlement in the Popondetta area, from December 1965 to February 1966.
Bibliography


  -- 1964. 'Rural entrepreneurs among the Orokaiva'. Roneod.


Dowell, M.F., Booth, P.B. and Walsh, R.J., 1967. 'Blood groups and haemoglobin values amongst the Ewa Ge and Orokaiva people of the Northern District of Papua', Archaeology and Physical Anthropology in Oceania, 2:1:47-56.


12. Sepik District

Research

Dr H. Aufenanger (see Eastern Highlands District) studied the spiritual culture and religious ideas of the island people of the Wewak sub-district and the peoples on the southern slopes of Prince Alexander Range in the Maprik sub-district from August 1963 to June 1964.

The research conducted in 1965 by Mr B. Craig, post-graduate student in anthropology, University of Sydney, on the Telefomin, Oksapmin, Tifalmin, Wopkeimin and Atbalmin tribes of the Western and Sepik Districts has been reported in the 'Western District' section. During January and February 1968, Mr Craig, accompanied by Mr D. Balmer and Mr G. Morren (see (West) Sepik District), planned to travel throughout the Green River and Yumi (Border Mountains) areas of the Upper Sepik in order to ascertain whether there are any relationships between the material culture and art styles of this area and those of the -min peoples (Mountain Ok). It was hoped that this might throw light on the question of the origins of the Mountain Ok culture in general and art styles in particular. The 1967 and 1968 expeditions were supported by grants from the Wenner-Gren Foundation for Anthropological Research.

Mrs R. Craig, then research student in anthropology, University of Sydney, studied the social structure and kinship system of the Telefomin people from April 1962 to May 1965. A brief return visit was made in January 1967.

Mr B.A.L. Cranstone, assistant keeper, Department of Ethnography, British Museum, studied the technology, material culture and economic system of the Tifalmin people of the Telefomin sub-district and made collections illustrating all aspects of their material culture, between January and April 1964. He also made smaller collections for comparative purposes from the Telefomin and other peoples, and collected information on art styles and on indigenous trade and trade routes. The material collected was divided between the British Museum and the Territory Museum in Port Moresby.

Mr and Mrs W. Dye, linguists, Summer Institute of Linguistics, worked intermittently from 1964 to 1967 among the Bahineno language group of Ambunti sub-district. They studied Bahineno social structure and religion, the grammatical structure of Bahineno, the relationship of Bahineno to other surrounding languages, and were also involved in testing and revising an orthography for vernacular reading materials. This study continued for some months into 1968.

Mr A. Forge, then assistant lecturer in social anthropology, London School of Economics, studied social structure and the social function of plastic art among the Abelam, Tshwosh and Iatmul people in 1958-59 and again from August 1962 to August 1963. Mr Forge is now lecturer in social anthropology at the London School of Economics.
Professor J. Guiart, Ecole Practique des Haute Etudes, Paris, collected museum specimens in the Angoram, Tanggojam (Washkuk), Chambri Lake and Yuat River areas during April and May 1965.

Dr E. Haberland, then associate professor of anthropology, Frobenius Institut, Frankfurt-am-Main, West Germany, studied the cultural anthropology and economic activities of the Iatmul, Korowori and Marumani peoples from July to December 1963. He also made a survey of Sepik art, in particular the 'house tambaran' of Kanganamun (Middle Sepik). He was accompanied on this journey by Mr S. Seyfarth.

Miss S. Hatanaka (see Eastern Highlands District) conducted a preliminary survey from December 1965 to February 1966 of the Hewa people of Lake Kopiago census division on the border of the Sepik and Western Highlands Districts. She returned for three years' further research in the Sisimin area in June 1967. The Sisimin (Saivalof) are of the same ethnic group as the Hewa and live in the Oksapmin patrol post area. Dr Hatanaka is particularly interested in habitat segregation and social organisation.

Mr A. Healey, then graduate student, Department of Anthropology and Sociology, the Australian National University, conducted a detailed study of the Telefomin language, and a comparative study of all languages within seventy miles of Telefomin from early 1962 to May 1963. Mrs P.M. Healey worked on a grammar of the Telefomin language during the same period. Studies were continued from January to June 1965. Dr Healey, now linguistic committee chairman of the Summer Institute of Linguistics, conducted further research into the Ok family of languages while Mrs Healey, then research scholar in linguistics, the Australian National University, concentrated on Telefomin syntax.

Dr G. Koch, chief curator, Museum für Völkerkunde, Berlin, studied the material culture of the Abelam people of the Maprik area in September and October 1966.

Mr D.A.M. Lea, then research scholar in geography, the Australian National University, conducted field research on land utilisation among the Abelam people from January to November 1962, and returned in June and July 1963 for further information on subsistence horticulture. In December 1965 and January 1966 Dr Lea revisited the area to study the Wosera resettlement project, settlement mobility and access to land. He is now senior lecturer in geography, University of Papua and New Guinea.

Mrs R. Lynch (Miss Ozer at the time of her fieldwork), then an Administration anthropologist, conducted research into land tenure and the social effects of land shortage among the Abelam people of Wosera census division from late 1964 to July 1965.

Mr K. Menzies (see Milne Bay District) visited various centres in the East and West Sepik Districts in June and July 1967 in connection with the study supervised by Dr R. Kent Wilson of the production and marketing of artefacts.

Mr D. Miles, then assistant curator of anthropology, Australian Museum, made ethnographic collections in the Sepik area for the Museum during 1965 and 1966. Associated with this expedition was the work done by Mr B. Craig in the Telefomin area at the same time (see also Western District).

Mr D. Newton, curator, Museum of Primitive Art, New York, conducted a preliminary survey of historical traditions and possible relationships to the distribution of art styles in the middle and upper Sepik areas from June to August 1964. Further studies were conducted among the Iatmul, Manambu, Iwan and Washkuk peoples from June to September 1965, and from July to December 1967 among the Ngala, Wogumas, Yeragei and Bahnemo as well.

Miss D. Ryan (see Central, Gulf, Madang, Morobe and New Britain Districts) made a study of Toaripi-speaking immigrants in Wewak in late 1965.

From December 1965 to January 1967, Dr M. Schuster, curator of the Museum für Völkerkunde, Basel, Switzerland, Mr C. Kaufmann, cand.-phil. at the University of Basel, and Mrs G. Schuster made an ethnographic documentation for previous Basel museum collections from the middle and upper Sepik areas (Sperser 1930, Buhler 1955-56 and 1959, etc.). In these villages and at other places in this region, additional documentary materials (including specimens) were collected for comparative research and broader scale. Among the peoples touched were the Iatmul, Tshwosh, Kwoma, Nukuma, Gohom, Iwan, Awaï, Mianmin, Eriptaman, and the people of Lumi. Mr Kaufmann studied the technical and functional sides
of Sepik pottery (including ceremonial use) in various villages of the Yaul, Dimeri and Maruwat people between the Yuat and Meram Rivers. The expedition was conducted under the auspices of the Schweizerischer Nationalfonds, the Fritz Sarasin-Stiftung and the Museum für Völkerkunde, Basel.

Dr T. Schwartz (see Manus and New Ireland Districts) made survey trips in the upper Sepik tributary area in July 1963 to select a site for the second part of the American Museum of Natural History's project, 'A field study in cultural systematics'. It was planned to do an ethnographic study of two comparable little acculturated groups. The Birua or 'hill people' of the May River on either the Arai or the Waniap tributaries were tentatively selected. The Mianmin people of the upper May River as well as various groups visited in the April, Wogamus and Schultzte River areas from October to December 1965, were considered. After a third trip to the Waniap and Arai tributaries of the May River in early 1966, work in this area was discontinued. Dr Schwartz observed that 'This area presents many difficulties of access to the more remote and unacculturated people who are mainly to be found in very small, widely dispersed groups in swampy foothill country. These small groups should be studied and might present interesting opportunities in ecology and the study of social organisation. Other groups at moderate and higher levels of acculturation are more readily accessible'.

Mr P.H. Staalsen, linguist-translator, Summer Institute of Linguistics, worked throughout the period 1962-67 on a study of the Iatmul language.

Mr W. Straatmans (see Eastern Highlands, Madang, Morobe, New Britain and Western Highlands Districts and Economics) worked for four months of 1964 in the Maprik area on a survey of indigenous cash cropping, under the direction of Dr R.T. Shand. Further visits were made in 1965 and 1966.

Mr J.A. Tuckson, deputy director, Art Gallery of New South Wales, studied the art styles of the Middle Sepik area in November 1965.

Miss J. Whitman (see Central, Gulf, Milne Bay, Eastern Highlands and Morobe Districts) studied the food habits of the people of Saragum, North Wosera, in 1963; information was also collected on social customs.

(i) East Sepik District

Mr M.D. Dornstreich, graduate student in anthropology, University of Columbia, New York, began work in July 1967 among the Gadio people on a consideration of the evolution of subsistence and settlement patterns among the Enga-speakers of the lower mountain rainforest. The project, which is also supported by the U.S. National Science Foundation, was expected to continue until October 1968.

Professor A.A. Gerbrands (see New Britain District) visited the Abelam people in the East Sepik District in July 1967 to study the cultural background of art and the position and personality of the artist.

Mr R.J. Lampert (see Central, New Britain and Western Highlands Districts and Archaeology and prehistory) conducted an examination and evaluation of archaeological sites on the coast near the Sepik delta during October and November 1967.

Dr M. Mead (see Manus District) visited Tambunam village of the Iatmul tribe in the East Sepik District, previously studied in 1938, in June and July 1967, to lay the groundwork for a project titled 'The cultural structure of perceptual communication', to be directed by Dr R. Metraux under a National Science Foundation Grant to the American Museum of Natural History. Dr Metraux spent eight months in Tambunam village and was joined during July and August 1967 by Mr W.E. Mitchell, Department of Psychiatry, University of Vermont Medical School, who studied problems of social change among the Iatmul with a grant from the Wennen Gren Foundation, and conducted a reconnaissance of the area for a more extended field trip. The new study will bring together the field materials from 1938 and 1967-68 with special emphasis on problems of perceptual communication, drawing particularly on live and still photography by Gregory Bateson in 1938 and some 300 hours of taped materials collected in the current field research. For comparative purposes, this study will draw on some parts of the research on Manus as well as on research by Dr Metraux in the West Indies.
(ii) West Sepik District

Mr and Mrs D. Bailey, missionary linguists with the Christian Missions in Many Lands organisation, worked in 1967 on a phonemic analysis of the Abau language, Green River. They were based at Ihanihom village.

The research work begun in 1967 by Professor F. Barth, professor of social anthropology, University of Bergen, Norway, in the Telefomin area is reported in the 'Western District' section.

Mr P. Goldman, director, Gallery 43, London, planned to visit the Sepik and Highlands Districts from January to April 1968 to conduct an ethnological and ethnographic survey of material culture with special reference to the 'arts'.

Dr D.C. Laycock (see Bougainville District) conducted a linguistic survey of the Lumi sub-district from June to August 1967.

Mr and Mrs R. Little, linguists, Summer Institute of Linguistics, worked during 1967 on general linguistic and anthropological research among the Senagi people (also called Watapor) of Amanab sub-district. A phonemic orthography was formulated, grammar analysed and a dialect study undertaken of a village near Green River (same language group as the Senagi). Further work was planned for 1968.

Mr G. Morren, graduate student in anthropology, Columbia University, New York, began research in December 1967 into demographic, economic, ecological and sociological aspects of the Miyanmin people of the Telefomin sub-district. The data will consist of replicated measurements of a limited set of variables in a series of Miyanmin and possibly neighbouring local populations. The variables pertain to two models of functional systems. One model describes the ecological relations of single local human populations with other animal and plant populations in their respective habitats. The second model attempts to describe systematically and quantitatively the material interactions between local human populations. The research, which is sponsored by the National Science Foundation of the United States, will continue until June 1969. The Green River (Abau) and Iuri language groups were also visited prior to the selection of the Miyanmin field site.

Mr A. Pereg, graduate student in anthropology, Columbia University, New York, began a study in June 1967 of human ecology in the Oksapmin area. He is accompanied by a physical anthropologist, Miss D. Tarrow, also of Columbia University.

Dr J.M. Stanhope (see Madang District and Demography) investigated the outbreak of leprosy in the newly exposed community of Brugap village in the West Sepik District in January 1967.

Mrs P.K. Townsend, post-graduate student in anthropology, University of Michigan, made a study of subsistence and social structure of the Saino-speaking people of the Wogamush River area in the West Sepik District from mid-1966 to August 1967. During March and April 1967, a survey of the Korosameri-Karawari River area was made in co-operation with the Summer Institute of Linguistics.

Bibliography


*Bass, J. and Loving, R.E., 1964. 'Languages of the Amanab sub-district'. Department of Information and Extension Services, Port Moresby.


--- 1964(?). 'Notes on the current position of art production in the Sepik River area'. Roneod.


Glasgow, D. and Loving, R.E., 1964. 'Languages of the Maprik sub-district'. Department of Information and Extension Services, Port Moresby.


*Oxer, R., 1965. 'The socio-cultural effects of culture contact and land shortage in the Wosera census division of the Sepik District'. Department of District Administration, Port Moresby. Roneod.


**Sepik District anthropological bibliography**, 1963. Produced by the Department of Anthropology and Sociology of the Australian National University, Canberra. Roneod.


13. **Southern Highlands District**

**Research**

The expedition in 1964 from the Nanzan Catholic University, Nagoya, Japan, directed by Dr H. Außenanger, in the Southern, Eastern and Western Highlands is reported in the 'Eastern Highlands District' section.

Dr J. Eibl-Eibesfeldt, research associate, Max Planck Institute Seewiesen and University of Munich, studied and made a film documentation of facial expressions and gestures observed in the natural context and filmed by mirror lenses without the awareness of the people. These studies, carried out at the Kukukuku village of Ikumdi, the Bimin village near Oksapmin-Takin, and at Tari in September and October 1967, are part of a cross cultural exploration of human expression movements.

Mr K. and Mrs J. Franklin, then members of the Summer Institute of Linguistics, carried out linguistic and anthropological studies among the Kewa peoples intermittently from December 1964 to June 1965. Their work resumed in mid-1966 with Mr Franklin now a research scholar in linguistics, the Australian National University. In May 1967 they began work among the West Kewa, between Kagua and Mendi, on descriptive grammar and comparative studies relating to Kewa.

Mr C. Langlas, graduate student of the East-West Center, University of Hawaii, worked from November 1965 to June 1966 among the Foe (Foi') linguistic group of the Lake Kutubu area on 'cultural' (i.e. based on culturally-current generalisations) and 'statistical' (i.e. based on specific instances) models of activities, including shell valuable transactions and land use and tenure.

Miss J. May and Miss E. Louweke, linguists, Summer Institute of Linguistics, conducted research into the Fasu language of the Lake Kutubu area during 1967.

Dr D.N. McVean (see Eastern Highlands and Western Highlands Districts) conducted research into the vegetation, bryophytes and lichens of the Mendi and Mt Giluwe areas during June and July 1967.

Mr R. Newton, linguist, Summer Institute of Linguistics, made periodic visits during 1967 to make language recordings of the Kewa linguistic group of the Kewabe census division. He is also involved in translating the Bible into the Kewa language.

Mr F.L. Schieffelin, Department of Anthropology, University of Chicago, began research in November 1966 among the Kaluli speakers of the Orogo census division north of Mount Bosavi. He is concentrating on belief systems and the cognitive function of religion, with particular emphasis on the way religious beliefs and rites serve to transform groups and individuals. The study will continue until December 1968.

Dr T.G. Schultze-Westrum and Mrs S. Schultze-Westrum (see Central and Gulf Districts) made a zoological and anthropological study of the Kaluli and Waragu language groups of the Mount Bosavi area in August and September 1966. Special emphasis was placed on a study of non-verbal communication. They were accompanied by Mr W. Schieffelin (see Central and Gulf Districts) who studied traditional medical beliefs and practices.

Dr A. Strathern, research fellow and director of studies in anthropology, Trinity College, Cambridge, worked among the Wiru people at Pangia from May to December 1967 on a comparison of patterns of leadership and exchange in Pangia and Mt Hagen. Research was also conducted into group structure, land tenure and religious cults (again, as studied before in Mt Hagen).

Mrs M. Strathern, assistant curator, Museum of Archaeology and Ethnology, Department of Archaeology and Anthropology, Cambridge University, visited Pangia for two months during this period to gather information on women's place in the exchange system and to make a collection of artefacts for the Museum (see also Western Highlands District).

**Bibliography**


14. Western District

Research

Professor F. Barth, professor of social anthropology, University of Bergen, Norway, conducted a preliminary survey in March and April 1967 for a field work site in the Telefomin area. He returned in 1968 to conduct research among the Faiwolmin, particularly their ritual and religion (see also FUNDWI project in Irian Barat).

From February to May 1965, an expedition known as the Australian Star Mountains Expedition gathered information on a wide range of topics, including anthropology, linguistics, archaeology, geology, botany, herpetology and entomology, in the Star Mountains area of the Western and Sepik Districts near the Irian Barat border. The six European members of the expedition and seventeen local carriers from Telefomin achieved the first crossing of the Australian Star Mountains. One of its members, Mr B. Craig, now a post-graduate student in anthropology, University of Sydney (see Sepik District), gathered comparative data on the social structure, kinship and material culture of the Telefomin, Oksapmin, Tifalmin, Wopkeimin and Atbalmin tribes of the Western and Sepik Districts. During 1964, Mr Craig had made a thorough collection of artefacts for the Australian Museum, Sydney, in conjunction with the Museum's Sepik Ethnographic Expedition, led by Mr D. Miles (see Sepik District). In January and February 1967, Mr Craig made a complete census of carved houseboards and war-shields (including information on design, meaning, age, etc.) and rubbings of over 600 arrow carvings. He worked among the Eriptaman, Telefomin, Falamin, Faiwolmin and Wopkeimin peoples.

Mr R.C. Kelly, doctoral student, University of Michigan, Ann Arbor, planned to begin a study of the Etoro people in the Mt Bosavi region in April 1968.

Mr R. Otsuka, Department of Anthropology, University of Tokyo, conducted a preliminary study with Mr R. Hide (see Central and Eastern Highlands (Chimbu) Districts) of the hunter cultivators of the Oriomo-Bituri area in July and August 1967. This functional ecological study is under the direction of Dr D.H. Watanabe, lecturer in anthropology, University of Tokyo.

Dr A.E.M.J. Pans, University of Amsterdam, began an ethnographic and demographic study in the Lake Murray area in 1967, with assistance from the Netherlands Foundation for the Advancement of Tropical Research.
Mr and Mrs J. van Nieuwenhuijsen made a general anthropological study of the Suki people in the Suki Lagoon area, Upper Morehead census division, from June 1963 to October 1965, including also a survey in June and July 1965 of the Begwa, Kuni and Aewa peoples living near Lake Murray. Mr van Nieuwenhuijsen was a research officer, Department of Anthropology, University of Amsterdam Centre for Anthropological and Sociological Studies and Mrs C. van Nieuwenhuijsen was at this time a research fellow with the Netherlands Foundation for the Advancement of Tropical Research (WOTRO), The Hague, which financed their research and co-sponsored it with the Department of Anthropology and Sociology of the Australian National University.

Dr C. Voorhoeve, fellow in linguistics, the Australian National University, conducted research from June 1966 to September 1967 into the structure and interrelationships of the languages of the Pare, Supe, Kubo, Bibo and Beami peoples in the Nomad sub-district (see also Irian Barat).

Dr S.A. Wurm (see Eastern Highlands District) conducted a linguistic survey of the Kiwai, Bine Gidra, Gizra, Agob and Beami tribes in the Fly Delta and Nomad River areas in June 1966.

Bibliography


15. Western Highlands District

Research

Dr E. Asai, professor of linguistics, Nanzan Catholic University, Nagoya, Japan, completed a three months' study of the Duna language of the Lake Kopiago area in January 1965. Work was also done on the Hewa language. Dr Asai was a member of the Nanzan University's expedition to the highlands, directed by Dr H. Aufenanger and reported on further in 'Eastern Highlands District'.

Dr T.C. Becroft, now medical officer at the R.S. Pickup hospital, via Sentani, Irian Barat, has undertaken research among the Enga at various times since 1962 as part of the New Guinea mortality survey. She has also been working on an M.D. thesis entitled 'Ten years of Western medicine in a primitive culture'. She planned to return to the Enga briefly in 1968 to investigate the marital status of men and the birth-weights of babies (see also Irian Barat).

Mrs G.B. Bick, research fellow in anthropology, Columbia University, New York, studied the relationship between nutrition and population dynamics in a recently contacted area near Koinambe in the Mt Hagen sub-district in 1966. The research focussed specifically on
cultural mechanisms regulating the allocation of protein-rich foods among members of the population, and the possible relationship of these mechanisms to the control of population size. Dr A.P. Vayda (see Madang District) was principal investigator in the project.

Miss N. Bowers, then graduate student in anthropology, Columbia University, New York, studied the agricultural practices and social structure of the Kakoli (Kaugel) people of the upper Kaugel Valley throughout 1962 and 1963. Dr Bowers, now assistant professor of anthropology, Duke University, North Carolina, returned to New Guinea in late 1968.

The Reverend E. Brandewie, S.V.D., then graduate student in anthropology, University of Chicago, completed fifteen months' study of kinship, marriage patterns, funeral rituals and exchanges of the Kumdi-Engamoi of Mt Hagen sub-district in January 1965. He is now lecturing at the University of San Carlos, Cebu, Philippines.

Dr R.N.H. Bulmer (see Madang District) briefly revisited in 1964 the Kyaka Enga of the Baiyer Valley, among whom he had previously carried out research, to observe preparations for the House of Assembly elections.

The research project, 'Language and the perception of a natural environment', under the direction of Dr R.N.H. Bulmer in the Madang-Western Highlands border area, is reported on in 'Madang District'.

Dr I.H. Buttfield, lecturer in medicine, University of Adelaide, studied the relationship between iodine deficiency and mental deficiency among the Jimi River people in the Western Highlands in May 1966 and during August and September 1966. Professor B.S. Hetzel was in charge of the investigation.

The petrographic study of a number of indigenous quarries in the New Guinea highlands by Mr J.M.A. Chappell, then research scholar in geology, University of Auckland, from December 1963 to March 1964 is reported on under 'Eastern Highlands District'.

Mr E.A. Cook, then graduate student in anthropology, Yale University, completed eighteen months' field work in April 1963 on a study of acculturation and value change among the Manga and Morokai living near the Jimi Valley. Dr Cook is now assistant professor of anthropology, University of California, Davis, California.

Dr Z.P. Dienes (see Eastern Highlands District and Education) studied abstract concept formation by Enga children in the Wabag area on three visits in 1965.

The research undertaken in 1967-68 by Mr M.D. Dornstreich, graduate student in anthropology, University of Columbia, among the Gadio people is reported on in '(East) Sepik District'.

Dr I.J. Fairbairn (see Morobe District) made a study of Waso Ltd, an indigenous-owned company at Wapenamanda, in May 1967.

Mr J.R. Flenley, former research scholar in geography, the Australian National University, and now at the University of Hull, England, completed a year's study of the present and former vegetation of the Wabag region in July 1965. His research consisted of phytosociological analyses of selected sites and pollen analyses of lake deposits.

Mr J. Golson, senior fellow in prehistory, Department of Anthropology and Sociology, the Australian National University, visited Mt Hagen in July 1966, and co-operated with Mr R.J. Lampert (see Central, New Britain and (East) Sepik Districts and Archaeology and prehistory), Mr W.R. Ambrose of the same department, and Miss J. Wheeler (see below) in an investigation by archaeological and palynological techniques of old cultivations under peat swamps on the Wahgi River flats. On the way to the Mt Hagen site, Messrs Golson and Ambrose investigated the site of the discovery of a small stone human head during roadmaking one mile west of Kainantu. In October and November 1967 Mr Lampert excavated a second swamp site in order to augment the palynological investigation previously carried out by Miss Wheeler. Mr Ambrose planned to work on a similar swamp drainage project in the Wahgi Valley during the latter half of 1968.

Miss C.J. Hainsworth, linguist, Summer Institute of Linguistics, was engaged in research on Narak grammar for eighteen months between 1962 and 1966. A Narak dictionary was also completed, and further research was planned for 1968.


Bunn, G. and Scott, G., 1962. 'Languages of the Mt Hagen sub-district'. Department of Information and Extension Services, in co-operation with the Summer Institute of Linguistics, Port Moresby.


Golson, J. et al., 1967. 'A note on carbon dates for horticulture in the New Guinea high-

Grant-Cook, M., 1966. 'Tea culture in the highlands of New Guinea', Australian Territories,


Heider, K.G., 1967. 'An unusual carved stone from Mount Hagen, New Guinea', Archaeology

Heim, R., 1964. 'Note succincte sur les champignons, alimentaires des Gadsup (Nouvelle-

* -- 1965. 'Les champignons associés à la folie des Kuma, étude descriptive et inconographie',


Harvard University.

-- 1965. 'Un remarquable bolet utilisé par les Kuma, en Nouvelle Guinee', Beiträge zur
Biochemie und Physiologie von Naturstoffen, Festschrift Kurt Mothes zum 65 Geburtstag.
Tena.

Hill, E.M., 1965. 'Pyrethrum - a new industry for the highlands', Australian Territories,
5:5:36-44.


*Lampert, R.J., 1967. 'Horticulture in the New Guinea highlands - C.14 dating', Antiquity,


*McAlpine, J.R., 1966. 'Land in the Wabag sub-district, Territory of Papua and New Guinea',


McBride, B., 1963. 'A patrol into the Porgera-Strickland Gorge area', Australian Territo-
ries, 3:2:32-41.

MacLennan, R., Bradley, M. and Walsh, R.J., 1967. 'The blood group pattern at Oksapmin,
Western Highlands, New Guinea', Archaeology and Physical Anthropology in Oceania,
2:1:57-61.

Meggitt, M.J., 1962. 'Growth and decline of agnostic descent groups among the Mae Enga of

-- 1962. 'Dream interpretation among the Mae Enga', Southwestern Journal of Anthropology,
18:3:216-29.

-- 1964. 'Male-female relationships in the highlands of Australian New Guinea', American


York.

-- 1965. 'Mae Enga religion' in Gods, Ghosts and Men in Melanesia (P. Lawrence and

-- 1967. 'The pattern of leadership among the Mae Enga of New Guinea', Anthropological


Chapter 3

Irian Barat: research and bibliography

Research

Dr T.C. Becroft (see Western Highlands District) planned to establish statistics on mortality and morbidity among the North Baliem in the Highlands region during 1968.

Pater Dr J.H.M.C. Boelaars, missionary of the Sacred Heart, Merauke, conducted cultural anthropological research among the Mandobo tribe of the Upper Digul area from August 1961 to January 1965, and returned to study Mandobo religion from May 1966 to January 1967. In February 1967 he began a study of acculturation among the Yakaj people of the Kepi area.

Mr M. Bromley, missionary linguist of the Christian Missionary Alliance and of the anthropology department, Yale University, has conducted general linguistic analyses in Irian Barat from March 1954 to January 1958, and from January 1959 to May 1964. He returned to the field in August 1965 to work among the Dani people of the Lower Grand Valley in the Central Highlands and the southern Ngalik, who are linguistically related to the Dani. Special emphasis has been placed on the study of semantic structure, the investigation of indigenous religion and the structuring of changes in accepting Christianity, and the investigation of kinship semantics in relation to social structure comparatively over the Baliem and adjacent areas, in addition to major missionary ministry in Bible translation.

Dr K.G. Heider, now assistant professor of anthropology, Brown University, Rhode Island, planned to conduct research on ethnocentrism among the Grand Valley Dani of the Central Highlands from June to August 1968, with more intensive study to follow in 1970. Mrs E.R. Heider, assistant professor of psychology, Connecticut College, New London, Connecticut, planned to do research on cognition among the Dani during their 1968 visit. Dr Heider previously did research among the Dani as a member of the Harvard Peabody expedition from 1961 to 1963.

Mr K.S. Honda of the Asahi Shimbun, Tokyo, conducted a cultural anthropological study in the Central Highlands from January to March 1964.

Dr K.P. Koch, then graduate student in anthropology, University of California, Berkeley, concluded research begun in October 1964 on law and politics, social control, conflict management and war among the Jale people of the Central Highlands, between the Baliem Valley and the Star Mountains in July 1966. Dr Koch is now instructor in social anthropology, Harvard University.

Dr Koentjaraningrat, professor of anthropology, University of Indonesia, and visiting professor at Utrecht during 1966-67, conducted field research at Bgu village, in the Betaf District on the northern coast of Irian Barat, during 1964 and made brief visits to the area again in 1965. His research involved a descriptive study of the social structure of this food gathering group, and changes brought about by the copra industry and seasonal migrations to the port town. He also conducted a study of the value orientation of migrants and the people in swamp villages.

Dr I. Naomichi, anthropologist, Institute of Humanistic Studies, Kyoto, Japan, conducted anthropological research in West Irian during 1964-65, as a member of a Japanese scientific research team.

Dr D. O'Brien, now assistant professor, Department of Anthropology, Temple University, Philadelphia, conducted research among the Dani people of the Konda Valley from October 1961 to January 1963, and from April to August 1963; special emphasis was placed on the
study of social organisation, particularly the political significance of marriage payments, and acculturation, especially Dani responses to missionisation and the development of a cargo cult in a nearby valley.

Dr G. Oosterwal, now professor of anthropology and missions, Andrews University, Michigan, conducted research in 1962-63 among the Soromadja, Kwerba and Borromesso people in upper Mamberamo area. In 1962 he studied social organisation, religion and cargo cults; in 1963 he particularly studied the mythology and ritual of the kūne complex (sacred houses).

Dr H.L. Peters, now rector, Catholic Theological Institute, Sukarnapura, conducted research into the social-religious life of a Dani group in the Baliem Valley from January 1963 to April 1964.

Dr L. Pospisil, now professor of anthropology, Yale University, restudied cultural, economic and legal change among the Kapauku Papuans of the Kamu Valley, Wissil Lakes area of the Central Highlands, from June to September 1962.

Professor S.D. Richardson, professor of forestry, U.C.N.W. Department of Forests, Bangor, North Wales, undertook an intensive study of forest resources, including human rights and usages relating to forestry in 1967. He returned in 1968 to study Asmat wood carving.

Mr C. Roessler, missionary of the Evangelical Alliance Mission, Sentani, continued in 1967 a study begun in 1956 of the Ajam dialect of the Asmat language in the Agats (Flamingo Bay) area.

Pater P.A.M. van der Stap, missionary-linguist for the diocese of Sukarnapura, worked in 1966 on the preparation of his doctor's thesis on work done in the Baliem Valley (Central Mountains) from 1958 to 1963. From November 1966 Pater van der Stap has studied the Amung (or Uhunduni) language in the Kimnga District, some fifty miles north of the Carstensz Mountains.

Mr J. Verschueren, Catholic missionary, Merauke, Irian Barat, planned to begin research in early 1968 on acculturation, especially the relationship of old beliefs to Christianity, among the Jakai people living near one of the tributaries of the Mapi River.

Mr C. Voorhoeve (see Western District) conducted linguistic research in the Asmat area from November 1960 to September 1962.

Mr A.C. Voutas (see Central District) studied the composition and attitudes of the Irian Barat community of Port Moresby during the summer vacation of 1964.

Between April and September 1967 a number of experts in economic and social development took part in a high-level survey mission to Irian Barat as consultants for the Fund of the United Nations for the Development of West Irian (FUNDWI). The purpose of the mission, which was under the auspices of the United Nations Development Programme, was to prepare a master plan for the expenditure of FUNDWI's initial resources of $30 million (allocated by the Netherlands government after their withdrawal in 1963). This plan aimed to identify undertakings most likely to have an early and tangible impact on the economic development of Irian Barat and its export-earning capacity. In December 1967 the government of Indonesia agreed in principle to adopt the policy proposals recommended in the mission's report. The participating consultants were: C. Wolf (USA) - team leader and chief economist; E.V. Quintana (Philippines) - agricultural economist; S.D. Richardson (New Zealand) - forest products and wood utilisation consultant; J.C. Collins (UK) - agricultural production consultant; J.H. Weniger (Federal Republic of Germany) - agriculture and livestock consultant; E. Yaltkay (Turkey) - transport/engineer consultant; T.J. Riki (Finland) - coastal and river transport consultant; Mr G.E.V. Rang (Sweden) - ports consultant; V. Pai (India) - telecommunications consultant; M. Hoffman (Federal Republic of Germany) - meteorology consultant; J.E. Stepanek (USA) - small industries consultant; S. McCune (USA) - education consultant; H. Moerke (Federal Republic of Germany) - vocational training and power consultant; K. Laskaridis (Greece) - fisheries consultant; H.E. Hawkes (USA) - mining and geology consultant; H. Richards (UK) - public health consultant; A. Carlin (USA) - transport economist; R.G. Crocombe (NZ) - consultant anthropologist; FUNDWI ad hoc consultants: L. Allbaugh (USA) - agricultural economist; A. Brinser (USA), H. Suhastok - civil air communications; J.B. Watson - anthropology; D. Liot - land transport operations,
maintenance and repair; M. Lumsden - building construction consultant; T.F.W. Barth - anthropology; B. Hellman - aerodromes; K. Landskroner - rice promotion.

Bibliography


Kerr, M.D., 1966. 'Containment and the West Irian boundary'. Honours seminar paper, Centre for Asian Studies, Victoria University of Wellington, New Zealand.


*van Amelsvoort, F.P.M., 1962. 'Medisch werk in het stenen tijdperk', Nederlands Nieuw-Guinea, 10:3:3-5.


* -- 1963. 'The Irian changeover', *Australia's Neighbours*, 4th series, nos 6-7, pp.4-5.


Chapter 4

Papua-New Guinea and Irian Barat: social science research, by subject

1. Agriculture and horticulture

The Bureau of Statistics, Konedobu, issued a comprehensive survey in 1963 of indigenous agriculture as a contribution to the World Census of Agriculture conducted by the Food and Agriculture Organisation of the United Nations, and to provide basic data for future planning in Papua-New Guinea.

See also:

Bowers, N., Western Highlands
Brookfield, H.C., Eastern Highlands
Cheetham, R.J., Northern
Crocombe, R.G., Morobe, Northern
Fischer, H., Morobe
Hogbin, C.R., Morobe, Northern

Irwin, P.G., Gulf
Lea, D.A.M., Sepik
Meggitt, M.J., Western Highlands
Rimoldi, M., Morobe, Northern
Street, J.M., Madang
Waddell, E.W., Western Highlands
Wagner, R., Eastern Highlands

2. Anthropology

(a) Social, political and economic

See:

Aufenanger, H., Eastern Highlands, Sepik
Balmer, D., Sepik
Barth, F., Western, Irian Barat
Biggs, B.C., Madang
Billings, D.K., New Ireland
Boelaars, J.H.M.C., Irian Barat
Bowers, N., Western Highlands
Brandewie, E., Western Highlands
Bromley, M., Irian Barat
Brown, P., Eastern Highlands
Bulmer, R.N.H., Madang
Chowming, A., New Britain
Cook, E.A., Western Highlands
Counts, D.E. and D.R., (West) New Britain
Craig, B., Sepik; Western
Craig, R., Sepik
Cranstone, B.A.L., Sepik
Criper, C., Eastern Highlands
Crocombe, R.G., Northern
Cullin, M.J., Northern
Damon, A., Bougainville
Dark, P.J.C., Morobe; New Britain
Davis, D., Morobe
Dornstreich, M.D., (East) Sepik

du Toit, B.M., Eastern Highlands
Dye, W., Sepik
Eibl-Eibesfeldt, I., Southern Highlands
Fischer, H., Morobe
Forge, A., Sepik
Franklin, K. and J., Southern Highlands
Freedman, M., Morobe
Gerbrands, A.A., New Britain; (East) Sepik
Glasse, R.M., Eastern Highlands
Glick, L.B., Eastern Highlands
Godelier, M., Eastern Highlands
Goodale, J., New Britain
Goodenough, W.H., New Britain
Groves, M., Central
Haberland, E., Sepik
Harding, T.G., Morobe
Hatanaka, S., Eastern Highlands; Sepik
Hausfeld, R.G., Eastern Highlands (Chimbu)
Heider, E.R., Irian Barat
Heider, K.G., Irian Barat
Heintze, D., New Ireland
Hide, R., Western
Hogg, L., Madang
Honda, K.S., Irian Barat

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Mr R.J. Lampert (see Central, New Britain, (East) Sepik and Western Highlands Districts) also made a preliminary examination and evaluation of the following sites from February to July 1966 as a basis for further field work: Papuan coastal pottery sites, pottery sites on Buka, megalithic remains on New Hanover, general archaeological exploration in Western Papua, stone implement industry in Southern New Britain, and sites at Mt Hagen.

Mr G.L. Pretty, curator of archaeology, South Australian Museum, made field recordings of key archaeological monuments in the Central, Morobe and Western Highlands Districts in November and December 1967 for the trustees of the Papua-New Guinea Museum. The results are to be reported on with recommendations for establishing a scheme for the recording and protection of sites through the Cultural Property (Preservation) Ordinance, 1965.

Dr W.G. Solheim II, professor of anthropology, University of Hawaii, noted in 1967 that there was an interesting archaeological collection of prehistoric pottery from Collingwood Bay (excavated around 1904 or 1905) at the Museum für Völkerkunde in Vienna, obviously related to the Sepik River pottery; this will be studied and published on in the next few years.
See also:
Ambrose, W.R., Western Highlands
Chappell, J.M.A., Eastern Highlands; Madang; Morobe
Cole, J.D., Eastern Highlands
Egloff, B.J., Milne Bay
Golson, J., Western Highlands
Key, C.A., Milne Bay
Lauer, P.K., Milne Bay
Ruxton, B.P., Central
Scarlett, R.J., Bougainville; Eastern Highlands
Specht, J., Bougainville; Central; New Britain
Wheeler, J., Eastern Highlands; Western Highlands
White, J.P., Central; Eastern Highlands; Morobe; Western Highlands

4. Art and pottery

Mrs M. Tuckson, then with the Ceramics Department, National Art School, East Sydney Technical College, visited Aibom, Chambri Lake and Maprik villages in the Sepik District, Yabob near Madang, and Porebada and Boera near Port Moresby in November 1965. She studied techniques of hand building methods, clay preparation, decorating techniques, final surface treatment, firing methods, trading and marketing of pottery. From May 1967 to January 1968, Mrs Tuckson studied, sketched and photographed museum collections of New Guinea pottery in Europe, the United Kingdom and the United States.

See also:
Balmer, D., Sepik
Craig, B., Sepik; Western
Cranstone, B.A.L., Sepik
Dark, P.J.C., Morobe; New Britain
Forge, A., Sepik
Gerbrands, A.A., New Britain; (East) Sepik
Glick, L.B. (Mrs), Eastern Highlands
Goldman, P., (West) Sepik
Guiart, J., Sepik
Haberland, E., Sepik
Heintze, D., New Ireland
Kaufmann, C., Sepik
Key, C.A., Milne Bay
Koch, G., Sepik
Lauer, P.K., Milne Bay
Maring, J.M., Morobe; New Britain
Miles, D., Sepik; Western
Morren, G., Sepik
Newton, D., Sepik
Schuster, M. and G., Sepik
Specht, J., Central; New Britain
Strathern, M., Southern Highlands; Western Highlands
Tuckson, J.A., Sepik

5. Building and building materials (includes Housing)

The Administration's Public Works Department building research station in Port Moresby, under the direction of Mr T.B. Brealey from 1965-67, conducted research into the production and introduction of materials, new construction methods and household facilities based on local resources; estimation of accommodation requirements and standards for indigenous people under varying circumstances; and design, construction and appraisal of low-cost housing in urban and rural situations. Mr Brealey is now studying problems associated with building in tropical areas at the CSIRO Division of Building Research in Melbourne. Mr L.J. Short is now in charge of the building research station, Port Moresby.

Mr D.W. Colombo, senior architect in charge of housing, Department of Public Works, Port Moresby, studied the problems of low-cost housing for the expatriate population of Port Moresby throughout 1967. Further research along these lines was planned for 1968.

Mr J. Hutton, then senior research fellow, Institute of Applied Economic Research, University of Melbourne, worked from October to December 1967 on a survey of the building and construction industry in Papua-New Guinea. He visited Lae, Wau, Rabaul, Kavieng, Momote, Madang and Goroka as well as Port Moresby. Support for this project came from the Myer Foundation Asian and Pacific Research Grants and from the New Guinea Research Unit of the Australian National University.
Mr B.S. Saini (see Eastern Highlands District) conducted comparative research into tropical building in the main centres of Papua-New Guinea in 1963. He is now director of postgraduate research in tropical architecture at the University of Melbourne.

The DSIRO Division of Building Research operates its office in Port Moresby as a centre for tropical building investigations and makes its facilities available to the Administration and to the building industry in general. The main research activities in 1964-65 involved an evaluation of paint systems for resistance to mould growth, the indoor environment assessment experiment in Port Moresby, and the establishment of instruments for measuring solar radiant energy at Port Moresby. These projects were continued in 1966; as well a study of the measurement of dimensional changes in concrete blockwork and of problems associated with bamboo and its preservation against rotting and insect attack was begun.

See also:
Oram, N.D., Central

6. Demography

The Bureau of Statistics, Konedobu, conducted the first nation-wide census of both indigenous and non-indigenous populations in June and July 1966. A sample of approximately 10 per cent of rural villages was selected to represent all rural villages, while all other areas were completely enumerated. District statistics have already been produced as preliminary bulletins. A census of employers was carried out in July 1967.

Dr R. Scragg, director, Department of Public Health, Konedobu, made an assessment in August 1965 of population variations among four sample groups, including full demographic assessment of mortality and fertility, at Lemankua and Solas on Buka Island in the Bougainville District and at Tigak and Tabar in the New Ireland District.

Dr J.M. Stanhope (see Madang and (West) Sepik Districts) is continuing the coordination of the survey begun in 1961 of mortality and population trends in assorted ecological situations in New Guinea. Studies have so far been made in New Ireland, Buka, Lower Ramu, Anguganak, Baiyer, Oro Bay and Losua.

Dr D.J. van de Kaa, research fellow in demography, the Australian National University, visited several districts in June and July 1967, conducting general demographic research.

See also:
Becroft, T.C., Irian Barat
Bettison, D.G., Central
Bick, G.B., Western Highlands
du Toit, B.M., Eastern Highlands
Giles, E., Morobe

7. Ecology

See:
Bulmer, R.N.H., Madang
Clarke, W.C., Madang
Morren, G. (West) Sepik

8. Economics

See:
Rowe, W., Western Highlands
Waddell, E.W., Western Highlands
Walker, D., Western Highlands

The CSIRO Division of Animal Genetics sent officers into the Markham Valley and Bulolo areas in January 1967 for research into cattle fertility and the establishment of improved pastures.
Mr E.K. Fisk (see Gulf District) made a general study of the economy in 1966, and also studied the monetisation process in the subsistence sector.

Mr D.T. Healey, senior lecturer in economics, University of Adelaide, visited Port Moresby and Rabaul during January and February 1966. He attempted to examine the capital market and to draw up a set of flow of funds tables for Papua-New Guinea, but noted that the amount of statistical information for this project was extremely meagre.

Professor K.P. Lamb, professor of biology, University of Papua and New Guinea, visited the Gazelle Peninsula, Madang, Popondetta and Kieta during 1967 in connection with his investigation of the cocoa dieback disease. The pantorhytes weevil in cocoa was also studied at Popondetta. Professor D.P. Drover, professor of chemistry at the same university, is also associated with this research, and in 1967 he visited indigenous and expatriate plantations in the Bougainville, Madang and New Britain Districts. The project was planned to continue into 1968.

The Reserve Bank of Australia continued to carry out economic and financial research associated with its responsibilities as central bank in Papua-New Guinea. The Bank has continued its work of promoting a pre-banking system in the form of savings and loan societies, and in association with this is also conducting research into the use of money and the need for credit by indigenous people.

Dr S. Singh, visiting fellow, New Guinea Research Unit, the Australian National University, worked from January 1967 to June 1968 on a study of co-operatives in Papua-New Guinea (see also Central and New Britain Districts).

Mr W.R. Stent, lecturer in economics, Latrobe University, conducted an investigation in December 1967 into the employment prospects for school-leavers in Papua-New Guinea, in association with Mr J.D. Conroy, senior tutor in economics at the same university. Visits were planned to schools in the Central, Northern, Southern Highlands, (East) New Britain and Sepik Districts between January and March 1968.

Dr M. Ward, research fellow, New Guinea Research Unit, the Australian National University, was involved from October to December 1967 on a study of the economic effects of the Rigo Road in the eastern half of the Central District, as part of a long-term study of transport throughout Papua-New Guinea.

Professor J.W. Williams, Department of Economics, University of Papua and New Guinea, was involved in 1967 on a study of markets in New Guinea, in co-operation with Mr W. Straatmans, research officer, New Guinea Research Unit (see Eastern Highlands, Madang, Morobe, New Britain, Sepik and Western Highlands Districts) and Dr T.S. Epstein (see (East) New Britain District). The markets in Goroka, Lae, Mt Hagen and Rabaul were investigated by Dr Epstein and Mr Straatmans in January 1967, and again in December 1967.

Dr R. Kent Wilson, then senior research fellow, New Guinea Research Unit, the Australian National University, began a two-year study in May 1966 of indigenous-owned or operated industrial projects in Papua-New Guinea. Enterprises were studied at Purari and Moveave in the Gulf District, Kairuku in the Central District, the Gazelle Peninsula, Buka Island, Kavieng and the east coast of New Ireland. Dr Wilson was assisted in the field in 1966 and 1967 by Mr R. Garnaut, Mr L. Morgan, Mr R. Namaliu and Mr J. Tennaku. In 1968 Dr Wilson conducted a survey of factory industry in all main towns, the hand-loom weaving industry in the Eastern, Chimbu and Western Highlands Districts, and boat-building and pottery in parts of Milne Bay District (see also Milne Bay and Sepik Districts).

The Department of Labour, Konedobu, has undertaken several major research projects during the period: (i) an income and expenditure survey of a sample of ninety base-grade local officers in Port Moresby, Lae, Madang and Rabaul. The survey period was a fortnight, and the results consist of both individual case studies and an overall statistical collection; (ii) a tabular assessment of the Administration manpower situation for the years 1967 and 1970; (iii) a limited manpower survey of the private sector (the results of these three projects are confidential, either in part or in full); (iv) Territory-wide pricing survey in connection with the determination of the monetary allowance in lieu of rations rates; (v) surveys of the effectiveness of management training courses; (vi) employee evaluation and appraisal programmes.
In addition, the Department proposed to conduct research into the development of statistical series in relation to unemployment and consumer prices, undertake industry cost studies and investigate the labour supply to coastal rural industries.

The Department of Trade and Industry notes that its research activities cover: (i) market research into the prospects of satisfactory disposal of New Guinea's products, both primary and secondary, on export markets; (ii) market research into the problems of distribution and supply within the domestic market; (iii) research into the effects of the institutional infrastructure of taxation, tariffs, etc., as incentives to capital formation, investment and development; (iv) feasibility studies in connection with investment opportunities, particularly in secondary and tertiary industries; (v) research into the requirements for adult education and training in the commercial field and appropriate methods by which the necessary skills can be developed among people with little formal education.

In 1967 the Department arranged for several surveys to be made in the Northern District: a survey of tourist potential by Miss R. von Trepp, then of the Department, and a survey by Mrs E. Schwimmer, University of Columbia, into the possibility of tapa cloth manufacture being developed as a cottage or village industry. Under the joint auspices of the United Nations International Labour Organisation and the Department of Trade and Industry, Mr J. Petersen conducted a pottery survey in the Madang, Milne Bay, Northern and Sepik Districts in 1967, and established a centre at Yabob in the Madang District aimed at encouraging improvements in traditional pottery making, and at establishing commercial markets for the work produced.

See also:

(i) General:
- Fisk, E.K., Eastern Highlands; Gulf
- Howlett, D., Eastern Highlands
- Hogbin, G.R., Eastern Highlands; Gulf

(ii) Banking and credit:
- Sherwin, R.M., (East) New Britain
- Salisbury, R.F., Eastern Highlands

(iii) Business and industry:
- Crocombe, R.G., Northern
- Finney, B.R. and R.S., Eastern Highlands
- Hogbin, G.R., Northern
- Howlett, D., Northern
- Menzies, K., Milne Bay; Sepik
- Sankoff, G., Morobe

(iv) Cash cropping:
- Aitken, P.N., Northern
- Crocombe, R.G., Northern
- Dakeyne, R.B., Northern
- Hogbin, G.R., Gulf
- Howlett, D., Northern
- Hughes, I., Eastern Highlands
- Irwin, P.G., Gulf
- Jackson, G.G., Morobe

(v) Co-operatives:
- Crocombe, R.G., Manus; Northern
- Lomas, P., New Ireland
- Jackson, G.G., Morobe

(vi) Other economic activities (includes Cattle):
- Jackson, G.G., Morobe

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vii) Resettlement:

Hide, R., Central
Lea, D.A.M., Sepik
Singh, S., New Britain
van Rijswijck, O., Central; New Britain

9. Education

Mr J.R. Prince, then warden of preliminary year students, University of Papua and New Guinea, visited the Central, Western and the three Highlands Districts in May 1967 to study science conceptualisation among school children, and all main centres in August and September 1967 to study science teaching generally, especially causality problems.

Professor E. Roe, Department of Education, University of Papua and New Guinea, initiated an educational materials centre in 1967, and also began work on the establishment of criteria for the evaluation of teaching and learning materials for use in Papua-New Guinea.

Miss E.D. Ryan, University of Pittsburgh, spent June to December 1966 studying the relationship between social forces and the development of elementary education in Papua-New Guinea from 1945 to 1965. The contribution of the Christian missions to education during this period was also examined, and an assessment made of governmental planning for education in the post-war period.

Professor G. Sawyer, Department of Law, the Australian National University, visited Port Moresby and Rabaul in June 1965 to investigate problems of legal education and judicial administration.

The Currie Commission, consisting of Sir George Currie, chairman, Dr J.T. Gunther, then assistant administrator for services, and now vice-chancellor of the University of Papua and New Guinea, and Professor O.H.K. Spate, director, Research School of Pacific Studies, the Australian National University, conducted research into higher academic and technical education in New Guinea in 1963 and 1964.

Mr W.E. Tomasetti (see Milne Bay District) conducted research in 1967 on the possible role of the University of Papua and New Guinea in adult education and external studies, under a grant from the Myer Foundation.

The Department of Education, Konedobu, has recently established a research section, which is at present concerned primarily with research aimed at fulfilling immediate administrative and policy-making needs of the Department. In addition, it is endeavouring, in conjunction with the Education Research Committee, to identify needs and establish priorities in educational research in the country, and to provide what assistance it can to anyone engaged in such research.

Five projects were commenced in 1967 by members of staff of Australian universities under the Department's research grant scheme: (i) Mr L.D. Mackay, Faculty of Education, Monash University, began developing and trying out tests of understanding in various aspects of science at form IV level in New Guinea high schools in 1967. The final form of the test battery will provide an indication of how successfully the objectives of the science course are being achieved and also some comparison of science understanding between New Guinean and Australian children. He is being assisted by Mr P.L. Gardner, also of Monash University, who is particularly concerned with New Guinean children's understanding of scientific words. (ii) Dr J. Cleverly and Mr G. Johnston of Monash University visited schools in the Chimbu, Morobe and East Sepik Districts during 1967 to isolate and comment upon significant problems or problem areas in the teaching of social studies in small indigenous primary schools with the intention of making interim resolutions, and to assist with the determination of priorities for further research. In 1968 they planned to conduct pilot projects with several classes in Port Moresby and Goroka, trying out units which form part of new social studies curricula which the researchers are developing for use in New Guinea schools. (iii) Professor D. Spearritt, University of Sydney, is undertaking research into the development in children of the four basic communication skills during their primary schooling and the relation of differential development in these areas to differing verbal experiences and emphases in school and at home. The first stage was the administration in 1967 of a battery of tests of reading, listening, writing and speaking ability to a sample of sixth grade children in several districts. (iv) Mr J. Anderson, New England University, is developing a standardised
test of reading comprehension for primary school pupils for whom English is a second language. He visited New Guinea in 1967 and again in February 1968 to try out a preliminary form of the test. Later in 1968 the test was to be administered to a large number of pupils in order to obtain norms for the country. Mr Anderson's long-term aim is to develop a suitable technique for measuring the reading difficulty of books or passages of English intended for use in the country. (v) Miss M. Nixon, Monash University, is studying linguistic and concept development in New Guinean children. She was to visit Papua-New Guinea in early 1968 to undertake a pilot study in the (East) New Britain District using material developed over a three-year period in Victoria.

Various curriculum development projects involving pilot projects in schools were undertaken from time to time. Notable examples were: (i) development of 'Temlab' (Territory Mathematics Laboratory) by a group of departmental officers. Part I is designed for the first three years of primary schools and the material used includes a large number of dice marked with symbols for mathematical operations, cards, scales, wall charts, blocks and instructions for a variety of games and activities, all of which provide valuable experience with mathematical concepts without relying heavily on communicating the concepts through English. Part II is being developed for the upper primary grades. This work was supervised initially by Dr Z.P. Dienes, then reader in educational psychology, University of Adelaide, who visited several times in 1964 (see also Eastern Highlands and Western Highlands Districts). (ii) Development, under the direction of Mr M.D. Maddock, of a new science syllabus for forms III and IV which aims at developing understanding of scientific concepts and methods rather than being preoccupied with descriptive facts.

Mr J. Schofield, then a guidance officer with the Department, and Mr I.G. Ord, principal psychologist, Office of the Public Service Commissioner, worked during 1967 on the adaptation of Mr Ord's P.I.R. Test Battery for possible use as a school entry test.

See also:

Richardson, P., Central; Morobe; New Britain
van der Veur, K., Central; Morobe, New Britain
Waddell, V., Northern

10. Ethnosience

Mr J.M. Diamond, now associate professor of physiology, University of California Medical Centre, Los Angeles, studied the evolution and distribution of birds and other vertebrates, and native systems of zoological classification, in the Okapa and Karimui areas of the Eastern Highlands from June to September in 1964 and 1965, and from June to September 1966 in the Prince Alexander, Torricelli and Bewani Mountains of the Sepik District.

The British Museum (Natural History) - University of Newcastle-upon-Tyne Expedition to New Guinea, 1964-65, collected plants, insects and ethnobotanical material, and made a cytological survey of pteridophyta genera in the Finisterre Range and in the Gusap River valley of the Morobe and Madang Districts in 1964, in the Vagai area of Morobe District in January 1965, the Aiyura, Okapa, Upper Chimbu and Mount Wilhelm areas of the Eastern Highlands in February and March 1965; and the Fulbourne Harbour area in New Britain (one member only) in February and March 1965. Some other invertebrates, frogs and reptiles were also collected. Mr C. Jermy, officer-in-charge of fern section, Botany Department, British Museum (Natural History), led the expedition. Mr Jermy noted that Dr T.G. Walker, Newcastle University, is conducting a research programme into chromosome numbers, evolution and breeding of living ferns sent back from New Guinea and anatomical investigations into fern structure.

See also:

Bulmer, R.N.H., Madang
Clarke, W.C., Eastern Highlands

Schultze-Westrum, T.G., Central; Gulf;
Southern Highlands
11. **Geography**

Dr H.C. Brookfield (see Eastern Highlands District) has been working since 1965 on a comparative geographical study of the Melanesian territories and their development under the colonial system. This work is now well advanced and is expected to reach completion in early 1969.

Professor A.J. Guilcher, Institut de Géographie, University of Paris, visited the Gazelle Peninsula, Port Moresby and environs and the highlands in August 1965 to study climatic geography. He was accompanied by M. Doumenge, now professor of tropical geography, Faculte des Lettres, University of Montpellier, France. In August 1967 he visited the Wapenamanda-Wabag area of the Western Highlands to study the formation and evolution of the terraces of the Lai River Valley.

Dr R.G. Robbins, then research fellow in biogeography, the Australian National University, visited the Central, Madang, Morobe and Eastern Highlands Districts in August 1964. He made classification studies of rainforest and collaborated with Dr R.N.H. Bulmer in studying forest products (resources) of the Kaironk Valley of the Madang District. Dr Robbins is now senior lecturer in biology, University of Papua and New Guinea.

Professor R.G. Ward, Department of Geography, University of Papua and New Guinea, began a long-term study in December 1967 of internal migration in Papua-New Guinea, based on both documentary and archival sources and field work.

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12. **Government and administration**

Dr K.W. Knight, then senior lecturer in public administration, University of Queensland, visited Port Moresby, Wewak, Goroka, Rabaul and Manus in October 1966 to study local government. His contacts were mainly with administration officials.

Professor R.S. Parker, Department of Political Science, the Australian National University, visited Port Moresby on numerous occasions throughout the period 1962-67 to study both current political developments and post-1945 administrative history. His main contacts were senior administrative officers, political party leaders and House of Assembly members. In January and February 1968, Professor Parker was involved in the organisation and conduct of the group study of the 1968 House of Assembly elections.

Dr B.B. Schaffer, then reader in government, University of Queensland, continued his study of the development of administrative institutions and local government councils during a number of visits in 1964 and 1965. During October and November 1964, he revisited the New Britain, Manus and Sepik Districts. Dr Schaffer is now senior lecturer in politics, School of African and Asian Studies, University of Sussex.

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<td>Rowe, W., Western Highlands</td>
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13. History

Mr P. Biskup, senior lecturer in history, Administrative College, Port Moresby, planned to begin a study in 1968 of the Germans in New Guinea between 1899 and 1914.

Mr J. Gibney, research officer in the Australian Dictionary of Biography, Institute of Advanced Studies, the Australian National University, is currently engaged on the production of a published guide to all archival material both public and private, relating to Australian activities in New Guinea.

Dr M. C. Jacobs, acting professor of history, University of Sydney, visited Rabaul, Kavieng and Madang in 1966 in the course of research into the history of German New Guinea. In 1967 research was undertaken mainly in Germany.

Mr B. E. Jinks (see Northern District) began a biographical study of the first post-war Administrator of Papua-New Guinea, Colonel J. K. Murray, in 1966.

See also:

Healy, A. M., Morobe
Polansky, E. A., New Britain

14. Labour and industrial relations

See:

Metcalf, P., Central
Rew, A., Central
Rowe, W., Western Highlands
Stevenson, M., Madang

15. Land: tenure, surveys and resources (includes Mining)

Mr H. A. L. Luckham, then senior research fellow, Department of Pacific History, the Australian National University, visited Port Moresby, Rabaul, Popondetta, Madang, Goroka and Mt Hagen in January 1965 to study land policies and administration, particularly in relation to land tenure and registration.

Mr G. S. Toft, post-graduate student in surveying, University of New South Wales, made a general study of the registration and cadastral survey of native-held rural land in Papua-New Guinea from December 1965 to February 1966. Particular case studies of traditional land boundary marks were also made on land parcels near Port Moresby, Popondetta and Rabaul.

The CSIRO Division of Land Research has carried out the following land resources surveys during the period 1962-67: 1962: Port Moresby-Kairuku area, Central District; 1963: Safia-Pongani area, Northern District; 1964: Bougainville and Buka Islands, Bougainville District; 1966: Kerema-Vailala area, Gulf District, and Aitape-Ambunti area, West Sepik District. These surveys include studies of land systems, geology, geomorphology, soils, vegetation, forestry, land use, and land use capability. A hydro-morphological study of the Angabunga River, Central District, was made in 1963. Solonetzic and related black earth and red clay soils were studied in relation to geomorphology and climate in the Central District in 1963. Ecological studies on the status of savannah and forest in the Central District were commenced in 1963, and continued in 1965 and 1967. Ecological studies in rain forest were carried out in the Managalas area, Northern District, in 1964. An investigation of the distribution, nature and age of volcanic ash layers was commenced in the same area in 1964 and finalised in 1966. Texture-contrast and related soils in the Musa Basin, Northern District, were studied in 1965. An assessment was made in the Cape Hoskins area, New Britain District, of timber volume of tropical rain forest from aerial photographs in 1966. In May 1967, a study was made of proportions, classification and formation of Oxisols (Latosols) and related soils, on various parent materials in the Northern District.

The Bureau of Mineral Resources, Department of National Development, through its New Guinea-based staff seconded to the Papua-New Guinea Administration, and its Canberra-based
and Port Moresby Geophysical Observatory staff, continued its geological and geophysical work in Papua-New Guinea during the period 1962-67. Geological work covered five main spheres of activity - regional mapping, investigation of mineral deposits, vulcanological and seismological surveillance, engineering geology, and hydrology. (i) Regional mapping. The main areas mapped, generally on a scale of 1:250,000 were: Bismarck Mountains, Western Highlands between Mt Hagen and Porgera; Port Moresby to Kemp Welch River; Bougainville Island; Papuan Ultramafic Belt; South Sepik region; and parts of Gazelle Peninsula, New Britain. (ii) Investigation of mineral deposits. Investigations ranged from systematic mapping and geochemical testing, sampling and drilling to brief inspections. (iii) Vulcanological and seismological surveillance. Maintained continuously at Rabaul by the Vulcanological Observatory, which is a unit of an international seismological network. Field inspections were made of active and dormant volcanoes in the region. (iv) Engineering geology. Work consisted mainly of hydro-electric and road location investigations. Hydro-electric projects on the following rivers were investigated: Pondo-Towanakoko, Lower Warangoi (New Britain), Upper Ramu (Eastern Highlands), and Laloki (Papua), and inspections of the following rivers: Tiri, Tuma, Musa, Kemp Welch, Brown, Vanapa and Angabunga. Road investigations included Kassam Pass, Kainantu-Goroka, Goroka-Chuave, and part of Kokoda-Popondetta road. (v) Hydrology. Village water supplies were investigated in the Milne Bay, East and West Sepik border areas, Western and Gulf Districts.

See also:

Crocombe, R.G., Central; Manus; Northern Dakeyne, R.B., Bougainville Hide, R., Eastern Highlands Hogbin, G.R., Northern Howlett, D., Northern Jackson, G.G., Morobe Langlas, C., Southern Highlands


16. Law

Mr B.J. Brown, fellow in Papua-New Guinea law, the Australian National University, made a number of visits in 1966 to Mt Hagen, Goroka, Kerema and Tapini in connection with his study of dispute settlement within and outside the official court system. In 1967 he visited the Central, East New Britain, New Ireland, Manus, Sepik, Madang and Eastern Highlands Districts in connection with this study, and also investigated crime rates. Apart from Tolai and Sepik people, his main contacts were with officers of the Administration. Further visits were planned for 1968.

Mr P.G. Sack, research scholar in law, the Australian National University, did field work on traditional and colonial land law in New Guinea from September to November 1967. Further visits were made in 1968.

Professor G. Sawyer, Department of Law, the Australian National University, visited Port Moresby and Rabaul in June 1965 to investigate problems of legal education and judicial administration.

17. Linguistics

Professor M.H. McKay, Department of Mathematics, University of Papua and New Guinea, was involved throughout 1967 in investigating the application of computers to linguistic research.

See also:

Dutton, T.E., Central; Northern
Dye, W., Sepik
Elbert, S.H., Bougainville
Firchow, I., Bougainville
Fischer, H., Morobe
Franke, R., Bougainville
Franklin, K. and J., Southern Highlands
Hainsworth, C.J., Western Highlands
Harris, J., Gulf
Healey, A. and P.M., Sepik
Hooley, B.A., Morobe
Howard, I.J., Bougainville
Hurd, C., Bougainville; New Britain
Ingemann, F., Western Highlands
James, D.J., Eastern Highlands
Lang, R. and A., Western Highlands
Laycock, D.C., Bougainville; (West) Sepik
Lee, C.Y., Western Highlands
Littoral, R., (West) Sepik

Louweke, E., Southern Highlands
McElhanon, K., Morobe
McKaughan, H.P., Eastern Highlands
May, J., Southern Highlands
Newton, K., Southern Highlands
O'Shea, D.J., Morobe
Pawley, A.K., Madang
Roesler, C., Irian Barat
Sankoff, G., Morobe
Smith, S., Central
Staalsen, P.H., Sepik
Steadman, L.B. and S., Western Highlands
Summer Institute of Linguistics, Eastern
Highlands
van der Stap, P.A.M., Irian Barat
Voorhoeve, C., Western; Irian Barat
Wurm, S.A., Eastern Highlands; Western
Young, R., Eastern Highlands (S.I.L.)
Z'graggen, J.A., Madang

18. Medicine

Dr J. Barrau, assistant director, Laboratoire d'Ethnobotanique, Museum National d'Histoire Naturelle, Paris, and consultant with the South Pacific Commission, Noumea, made an exploratory survey of medicinal plants and their use in folk medicine in Papua-New Guinea in July and August 1966 as part of a possible long-term interdisciplinary research programme in this field. It was sponsored by the South Pacific Commission with co-operation from the Bernice P. Bishop Museum of Hawaii and Paris Museum National d'Histoire Naturelle.

The Haematology Research Unit of the Department of Public Health at Lae began its activities in July 1964, and has throughout been concerned with various aspects of the anaemia of tropical splenomegaly as seen in the people of the Upper Watut Valley, near Bulolo. Dr D.S. Pryor did extensive field work in 1964-66 in the area, establishing the frequency, age and sex distributions of the disease, and performed detailed laboratory studies on 99 patients who at various times accompanied him to Lae. From June 1966 to May 1967 the major field work was a malaria survey which involved monthly visits to three Watut villages, with sporadic patrols later in the year.

Mr G.E. Kearney (see Northern District) and Mr D.J. Armstrong, Papua-New Guinea Psychological Research Unit, Department of the Army, conducted research among indigenous servicemen throughout 1967 into cognitive ability, attitude changes during military training, the effect of military training on later civilian life, selection techniques and a comparison of attitudes of Australian servicemen in Australia and indigenous servicemen in Papua-New Guinea. The research continued into 1968.

Dr I.H. Lightfoot, officer-in-charge, Council of Health Services, Papua Region, began a study in 1964 into water supplies and environmental sanitation in villages throughout Papua. The research is still continuing. Dr J. Wolstenholme, acting regional medical officer, Department of Public Health, was also involved in this work in 1967, as well as studying blood groups and population movements in the Southern Highlands, conducting a housing survey of departmental employees in Papua, and a longitudinal study of the effects of wells on the health of a village.

Dr D.W. McElwain, professor of psychology, University of Queensland, studied the uses of psychological testing procedures for various selection purposes in October and November 1966. He visited Port Moresby, Markham Valley, Fore, Rabaul and Kokopo.

Dr W.V. Macfarlane (see Eastern Highlands District) visited the Chimbu and Tsenda people of the Chimbu and Upper Sepik (Jimi River) areas in August 1966 to study the relationship between the intake of sodium and potassium from native diets relative to blood pressure and blood aldosterone levels. He also studied the effect of a money economy on the composition of body fluids and on blood pressure. Similar investigations were made on the relationship
between electrolytes and body fluids, blood pressure and degree of acculturation to European economy and food habits during 1967 at Madang, Goroka and in the Ramu River and Jimi River areas. Dr Macfarlane planned to undertake fluid and electrolyte studies on Kar Kar Island in 1968, in association with the Institute of Human Biology.

Professor H.A.P.C. Oomen, Institute of Tropical Hygiene, Amsterdam, and Miss M.W. Coiden, senior nutritionist, Commonwealth Department of Health, began a study in 1967 of nitrogen and energy intake and excretion in groups of medical students and nurses in Port Moresby, and young men and women of similar age at Baiyer River. This work was carried out under the auspices of the South Pacific Commission.

Dr A.V.G. Price, then pathologist, Department of Public Health, Konedobu, conducted a weekly diabetic survey of indigenous people in Port Moresby from 1962 to 1965. Motu and Koitapu beliefs concerning snakes were studied in 1965.

Dr K.H. Reickmann, research medical officer, Department of Public Health, Konedobu, worked from March 1964 to March 1966 on field trials with long-acting injectible anti-malarial drugs in the Rabaul area of the New Britain District and the Gogol River area of the Madang District. This project was carried out under the auspices of the World Health Organisation.

The Department of Public Health, Konedobu, through its medical research advisory council minutes, noted that the following projects were begun during the period 1962-67: October 1962: Kuru research - Dr Alpers, Dr and Mrs Glasser, Dr Rail; Karimui, B.C.G. - leprosy research - Dr Schofield; Trial of tetanus toxoids including adjuvants - Dr Schofield; Nutrition - Dr I. Maddocks, Miss Kirk (Mrs Hitchcock), Dr Hipsley and Australian National University; Mycology, clinical and laboratory collaboration on culture studies of trichophyton concentricum in fomites with reference to long-term control of Tinea Imbricata. May 1963: Arbovirus research - Mr Firth; Childhood lymphoma; Enteritis necroticans - Dr Roth and Dr Murrell; Cholera vaccine. October 1963: Haematology - Professor Pitney; National Heart Foundation; Amyloid disease and copper metabolism - Dr Rodrigue; Endemic goitre - sub-committee in Sydney. May 1964: Cancer - sub-committee in New Guinea; Liver disease. October 1964: Randomised morbidity research - Dr A.P. Vines; Laiagam, B.C.G. vaccine trial - Dr S. Wigley; Field research project (501-5) - Dr J. Saave; Filariasis - Dr McMillan. July 1965: Tolai ethnopsychiatry project - Professor J.E. Cawte; Water and electrolyte studies - Professor W.V. Macfarlane; Leaf protein pilot project, Lae - Dr N.W. Pirie; Pari village study - Dr I. Maddocks. February 1966: Burkitts lymphoma - Professor N.P. Stanley; Dental research - Dr D. Barnes. November 1966: Mycobacterial ulcerations - Dr H. Bassett; Amyloidosis - Professor T. Gafri. July 1967: Neurological survey - Dr R. Hornabrook.

The Australian Academy of Science, the Royal Society of London, and the Papua and New Guinea Institute of Human Biology planned to begin work in 1968 on a long-term multidisciplinary study of two contrasting groups of New Guineans, firstly in Kaul village on Kar Kar Island (Madang District) and later at Goroka (Eastern Highlands District). The project, which is part of the International Biological Programme, will involve studies of health, nutrition, growth and development, physique, work capacity, heat tolerance and genetics. Dr J.V.G.A. Durnin, Institute of Physiology, the University of Glasgow, will participate in this study.

See also:

(i) Health, food and nutrition:

Bailey, K.V., Eastern Highlands
Becroft, T.C., Western Highlands; Irian Barat
Bick, G.B., Western Highlands
Hipsley, E.H., Central; Eastern Highlands

(ii) Illness and disease:

Gajdushek, D.C., Eastern Highlands
Glasser, R.M., Eastern Highlands

Hitchcock, N. (née Kirk), Central; Eastern Highlands
Stanhope, J.M., Madang
Vayda, A.P., Madang; Western Highlands
Whiteman, J., Central; Eastern Highlands; Gulf; Milne Bay; Morobe; Sepik

Hausfeld, R.G., Eastern Highlands (Chimbu)
Hornabrook, R.W., Eastern Highlands
Lindenbaum, S., Eastern Highlands
McArthur, N.R., Eastern Highlands
Russell, D.A., Eastern Highlands

(iii) Mental health (includes psychological and psychiatric research):

Burton-Bradley, B.G., Central
Buttfield, I.H., Western Highlands
Cawte, J.E., New Britain
Heider, E.R., Irian Barat
Heim, R., Western Highlands
Hetzel, B.S., Western Highlands
Hoskin, J.O., New Britain

Julius, C., Central
Kearney, G., Northern
Langness, L.L., Eastern Highlands
Leininger, M., Eastern Highlands
Riebe, I., New Britain
Robbins, S.G., Eastern Highlands
Schwartz, T., Manus
Wasson, R.G., Western Highlands

(iv) Indigenous attitudes to medicine:

Glick, L.B., Eastern Highlands
Jackson, G.G., Madang
Pulsford, R., Central

Schiefenhövel, W., Central; Gulf; Southern Highlands
Stanhope, J.M., Madang

19. Military

See:

Kearney, G.E., Medicine

20. Non-indigenes (see also Sociology - race relations)

See:

Bettison, D.G., Central
Howlett, D., Northern

21. Politics

Dr A. M. Healy (see Morobe District) visited Port Moresby in 1967 under an Australian Research Committee Grant to begin work on a study of political organisation in Papua-New Guinea. A further visit was planned for January and February 1968, including short stays in Lae, the Gazelle Peninsula, Buka, Manus Island, Madang, Goroka and Port Moresby.

Dr M. J. Meggitt (see Western Highlands District) visited various areas, including Port Moresby, Rabaul, the Highlands and the Sepik, in June and July 1967 to observe social and political changes since his last visit in 1962. Dr Meggitt is now professor of anthropology, Queen's College, New York.

Professor N. Meller, Department of Political Science, University of Hawaii, studied the structure and procedures of the Papua-New Guinea House of Assembly from January to August 1967. Professor Meller was an honorary fellow with the New Guinea Research Unit, the Australian National University, and was assisted by an Australian-American Education Foundation Grant.

Professor R. S. Parker, Department of Political Science, the Australian National University, revisited Port Moresby on numerous occasions throughout the period 1962-67 to study both current political developments and post-1945 administrative history. His main contacts were senior administrative officers, political party leaders and House of Assembly members. In January and February 1968, Professor Parker will be involved in the organisation and conduct of the group study of the 1968 House of Assembly elections.

Mr W. A. Standish, then undergraduate student in political science, Monash University, worked in Port Moresby from January to March 1966 among students from all areas of Papua-New
Guinea. He studied their attitudes towards Asia, and particularly Indonesia, and made some comparisons with attitudes towards Australia. The general structure of individual political attitudes was also studied.

Mr E.P. Wolfers, fellow, Institute of Current World Affairs, New York, and post-graduate student in government, University of Sydney, began a study in March 1967 of Australian government policy towards, and the political development of, Papua-New Guinea from 1945 to 1964. In late 1967 he joined Mr A.M. Healy (see above) in a study of the roles of parties, associations and interest groups in the 1968 House of Assembly election campaign. Mr Wolfers is also compiling a bibliography of bibliographies relevant to studies of Papua-New Guinea, and would welcome any relevant information from researchers or potential researchers concerning this undertaking. His address is P.O. Box 628, Port Moresby, New Guinea.

See also:

Stevenson, M., Madang

For election studies see:

Berndt, R.M. and C.H., Eastern Highlands
Bettison, D.C., Central
Bulmer, R.N.H., Madang; Western Highlands
Chowning, A., New Britain
Colebatch, H.K., Western Highlands
Epstein, A.L. and T.S., New Britain
Fink, R., Milne Bay
Goodale, J., New Britain
Griffiths, T., Central
Grosart, J., Milne Bay
Groves, M., Central
Hamilton, R.M., Central
Harding, T.G., Morobe
HUGHES, C.A., Central
Jarman, A.M.G., Madang
Lawrence, P., Madang
Ogan, E., Bougainville
McArthur, M., Central
McSwain, R., Madang
Reay, M., Western Highlands
Rimoldi, M., Bougainville
Strathern, A., Western Highlands
Tomasetti, W.E., Milne Bay
van der Veur, P.W., Central; Morobe
van Rijswijck, O., Milne Bay
Young, M.W., Milne Bay

22. Religion, ritual and belief

See:

Aufenanger, H., Eastern Highlands; Sepik
Barth, F., Western
Bromley, M., Irian Barat
Chowning, A., New Britain
Godelier, M., Eastern Highlands
Goodale, J., New Britain
Numazawa, K., Madang
Oosterwal, G., Irian Barat
Pataki, K.R., Eastern Highlands
Petors, H.L., Irian Barat
Schieffelin, E.L., Southern Highlands
Strathern, A.J., Southern Highlands; Western Highlands
Verschveren, J., Irian Barat
Wagner, R., Eastern Highlands

23. Sociology

See:

(i) General:

Abbi, B.L., Central
Dakeyne, R.B., Bougainville
Grosart, I., Milne Bay; New Britain
Rimoldi, M., Bougainville
Ryan, D., Gulf
Salisbury, R.F., Bougainville; Eastern Highlands; (East) New Britain
van Rijswijck, O., Central
(ii) Cargo cults:
Billings, D.K., New Ireland
Fischer, H., Morobe
O'Brien, D., Irian Barat
Oosterwal, G., Irian Barat
Robbins, S.G., Eastern Highlands
Schwartz, T., Manus; New Ireland

(iii) Migration (see also Urbanisation, below):
Hitchcock, N., Central
Koentjaraningrat, Irian Barat
Oram, N.D., Central
Rew, A., Central
Robertson, D.K., Central
Ryan, D., Central; Gulf; Madang; Morobe; New Britain; Sepik
Salisbury, R.F., Central; Eastern Highlands; New Britain
Voutas, A.C., Central; Irian Barat
Ward, R.G., Geography

(iv) Mixed-race people:
Burton-Bradley, B.G., Central

(v) Race relations:
Coulthurst, G.S., Central
Fink, R., Central
Polansky, E.A., New Britain

(vi) Tribal relations:
Panoff, M., (East) New Britain
Polansky, E.A., New Britain

(vii) Urbanisation (see also Migration, above):
Barnett, L., Central
Groves, M., Central
Oram, N.D., Central
Polansky, E.A., New Britain
Ryan, D., Central; Gulf; Madang; Morobe; New Britain; Sepik
Stevenson, M., Madang

24. Tales and myths

See:
Davis, D., Morobe
Fischer, H., Morobe
Godelier, M., Eastern Highlands
Hogg, L., Madang
Riebe, I., New Britain
Schwartz, L., Manus
Schwimmer, E.G., Northern

25. Voluntary aid

Mrs M. Dewdney, then research assistant, New Guinea Research Unit, the Australian National University, worked throughout 1967 in Australia on a study of voluntary, i.e. non-governmental organisations in Papua-New Guinea, the nature of the services provided, and an assessment of their contribution to development. A brief visit was made in September and October 1967 to Port Moresby, Lae, Rabaul, Madang, Goroka and Mt Hagen to obtain further information from Administration departments and voluntary organisations.

Mr D. Morawetz, then an undergraduate student in economics, University of Melbourne, compiled a list of voluntary associations in Port Moresby, Rabaul, Mt Hagen, Goroka and Lae when he worked as a vacation scholar with the New Guinea Research Unit, the Australian National University, from December 1964 to February 1965 (see also Northern District).
Chapter 5

Papua-New Guinea and Irian Barat: social science bibliography,
by subject

1. Agriculture and horticulture


2. Anthropology

(a) Social, political and economic


Burnett, R.M., 1963. 'Some cultural practices observed in the Simbai administrative area, Madang District', *The Papua and New Guinea Agricultural Journal*, 16:2, 3-79-84.


--- 1966. 'Tangu political relations', *Anthropological Forum*, 1:3-4, 393-411.


  -- 1966. 'The choice of kin roles in Lakalai'. Department of Anthropology and Sociology, the Australian National University, Canberra, 5 December 1966. Roneo.


-- 1964. 'Filiation and affiliation among the Gadsup', Oceania, 35:2:85-95.


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* -- 1967. 'Formal analysis and anthropological economics: the Rossel Island case' in *Applications of Game Theory in the Social Sciences* (J. Buchler, ed.). University of Texas.


*Sepik District anthropological bibliography*, 1963. Produced by the Department of Anthropology and Sociology of the Australian National University, Canberra. Roneod.


(b) Physical


Booth, P.B. and Vines, A.P., 1967. 'Blood groups and other genetic data from Bougainville, New Guinea, with observations on the occurrence of the Ro (cDe) and Rz (cDe) gene complexes in Melanesia', Archaeology and Physical Anthropology in Oceania, 2:3:227-35.


Dowell, M.F., Booth, P.B. and Walsh, R.J., 1967. 'Blood groups and haemoglobin values amongst the Ewa Ge and Orokaiva people of the Northern District of Papua', Archaeology and Physical Anthropology in Oceania, 2:1:47-56.


3. Archaeology and prehistory


4. Art and pottery


* -- (n.d.). 'In search of art in New Guinea: the Kilenge of Western New Britain'. Unpublished ms.


-- 1964 (?). 'Notes on the current position of art production in the Sepik River area'. Roneod.


5. Bibliographies

Department of Territories, 1965. Annotated bibliography on select government publications on Australian Territories, 1951-64. Canberra.


-- 1965. New Guineana, or books of New Guinea, 1942-1965: a bibliography of books printed between 1942 and 1964 relating to the Territory of Papua and New Guinea. Processed. Available from the distributor, Margaret Woodhouse Bookshop, 244 Miller St., North Sydney, N.S.W.


Sepik District anthropological bibliography, 1963. Produced by the Department of Anthropology and Sociology of the Australian National University, Canberra. Roneod.


-- 1963. 'Select bibliography on migration in the South Pacific'. LS/12/1, Noumea. Roneod.


University of Papua and New Guinea, Library, 1967. 'Higher education in the Territory of Papua and New Guinea - articles published since the report of the Commission on higher education in Papua and New Guinea (1964)'. The Library, Port Moresby.


Wolfers, E.P., 1967. 'A bibliography of bibliographies relevant to a study of Papua and New Guinea'. Available from the author, P.O. Box 628, Port Moresby, Papua-New Guinea.

6. Building and building materials (includes Housing)


*Saini, B.S., 1963. 'Tropical building research - preliminary report'. Submitted to the Deputy Director General, Commonwealth Department of Works, Melbourne.


7. Communications and transport


8. Defence and international relations (includes United Nations and Irian Barat)


-- 1963. 'The Irian changeover', Australia's Neighbours, 4th series, nos 6-7, pp.4-5.
9. Demography


Papua-New Guinea, Department of District Administration, 1965. 'Census of Papuan and New Guinean inhabitants in the town of Port Moresby, November 1964.' Roneod.


10. **Ecology**


11. **Economics**

(a) **General**


Conroy, W.L., 1965. 'Native reactions to economic change'. Paper presented to second seminar of the Australian Association for Cultural Freedom, Port Moresby.


-- (n.d.). 'From shell money to cash: capitalism primitive and modern'. Research School of Pacific Studies, the Australian National University, Canberra. Roneoed.


-- 1964. 'Custom and change in a highland village', Hemisphere, 8:8:22-7.


To Nguna, P., 1965. 'Papuan and New Guinean reactions to new forms of education and employment'. Paper presented to second seminar of the Australian Association for Cultural Freedom, Port Moresby.


(b) Banking and credit


-- 1966. 'Papua and New Guinea, the Reserve Bank's great challenge', Currency, 7:9:3-5.


(c) Business and industry


-- (n.d.). 'Studies of co-operatives and entrepreneurs in New Guinea'. New Guinea Research Unit. Roneod. (Includes bibliography on co-operatives.)


(d) Cash crops


--- 1967. 'Notes on the cocoa industry in New Guinea', *South Pacific Planter*, 1:10:3-5, 7, and 2:3:3-5, 10.


Papua-New Guinea, Department of Agriculture, Stock and Fisheries, 1962. 'Some comments on the world rubber situation over the decade 1951-60'. Port Moresby.


(e) Co-operatives


-- (n.d.). 'Studies of co-operatives and entrepreneurs in New Guinea'. New Guinea Research Unit. Roneod. (Includes bibliography on co-operatives.)


(f) Investment
Daw, E.D., 1967. 'The development of a public securities market in Papua and New Guinea',
'Security of investment', 1967. Submission to the Minister for External Territories by
primary producer organisations on 22 June 1967. New Guinea Highlands Bulletin,
8:3:31-3.

(g) Other economic activities (includes Cattle, Fishing, Forestry)
Anderson, J.L., 1962. 'The development of a cattle industry in the Territory of Papua and
-- 1962-63. 'Cattle tick (Boophilus microplus) - its occurrence and attempted eradication
in the Territory of Papua and New Guinea', The Papua and New Guinea Agricultural Journal,
15:3-4:91-104.
-- 1963. 'The development of a cattle industry in the Territory of Papua and New Guinea',
in Australia and the Territory of Papua and New Guinea as at 31 December, 1965.
Canberra.
*Barnes, C.E., 1967. 'The mineral industry in Papua and New Guinea', Australian Mining,
C.R.A. Exploration Pty Ltd, 1966. 'Bougainville report of activities for the month of
August 1966'. Roneod.
Department of Territories, 1965. Timbers of Papua and New Guinea. Government Printer,
Canberra.
*de Vries, M., 1962. 'Varkens - en geitenhouderij op het eiland Japen', Nederlands Nieuw-
Guinea, 10:6:24-5.
Dunstan, D.J., 1962. 'The barramundi in New Guinea waters', The Papua and New Guinea
Egerton, J.R. and Rothwell, T.L.W., 1963. 'Eradication of Brucellosis from cattle in the
 Territory of Papua and New Guinea', The Papua and New Guinea Agricultural Journal,
Elworthy, G.C., 1967. 'Trends in the plantation industry' in 'New Guinea people in business
'Fishing enterprise and research in Papua and New Guinea', 1962. Australian Territories,
2:5:28-33.
Huston, L.W., 1962. 'Forestry development in Papua and New Guinea', Australian Territories,
2:6:4-11.
no.8.


*van der Meulen, J., 1962. 'Fish marketing in Papua and New Guinea'. University of New England, Faculty of Agricultural Economics, Armidale, N.S.W. Typescript.


(h) Resettlement


12. Education

(a) General


Calvert, W., 1963. 'History and present day pattern of pre-school services in Territory of Papua and New Guinea'. Roneod.


Hand, D., 1964. 'Education - we have a policy', Australian Board of Missions Review, 54:5:74-5.


*Maddock, M.H., 1967. 'Education around the world; Papua and New Guinea', Tasmanian Teachers, vol.18, June, pp.3-8.


-- 1965. 'Problems of formal education'. Paper presented to second seminar of the Australian Association for Cultural Freedom, Port Moresby.


To Nguna, P., 1965. 'Papuan and New Guinean reactions to new forms of education and employment'. Paper presented to second seminar of the Australian Association for Cultural Freedom, Port Moresby.


University of Papua and New Guinea, Library, 1967. 'Higher education in the Territory of Papua and New Guinea - articles published since the report of the Commission on higher education in Papua and New Guinea (1964)'. The Library, Port Moresby.


(b) Primary


(c) Secondary


(d) Tertiary


Hanna, W.A., 1966. 'Australian Papua and New Guinea - Part I: policy for decolonization; Part II: Port Moresby, the Assembly and the University; Part III: Rabaul and Goroka', American Universities Field Staff Reports Service, South East Asia series, vol.24, nos 11, 12, 13.


* -- 1967. 'The law school at the University of Papua and New Guinea', Law Institute Journal, October.


The Australian National University, 1963. 'A submission by an informal study group of members of the academic staff of the Australian National University to the Chairman and members, Commission on Tertiary Education in Papua-New Guinea'. Canberra, 22 May 1963. Roneoed.


(e) Vocational and adult


Ross, B., 1965. 'What are you going to be?', *Australian Territories*, 5:5:24-35.


13. Ethnosience


14. General


Linebarger, P.M.A., 1965. *Military applications of social science in Papua and New Guinea*. Department of International Relations, Research School of Pacific Studies, the Australian National University, Canberra. Roneoed.


15. Geography


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16. Government and administration (includes Local government)


*Griffin, B.F., 1964. 'The impact of representative government on the district administrative system'. Paper delivered to the District Commissioners' Conference, Port Moresby. 9 September.


Lawrence, P., 1966(?). 'Local officers' arbitration case'. Roneod statement to commission of enquiry.


Mattes, J.R., 1965. 'Native local government councils'. Paper presented to second seminar of the Australian Association for Cultural Freedom, Port Moresby.


-- 1965. 'The development of the public service in Papua and New Guinea and the role of the public servant'. Paper delivered to the second seminar of the Australian Association for Cultural Freedom, Port Moresby.


Papua-New Guinea, Department of District Administration, 1965. The Department of District Administration, its role in the development of the Territory of Papua-New Guinea. Port Moresby. Roneod.


-- 1967. Directory to the Administrator's council, the House of Assembly, judiciary, departments and authorities. Port Moresby.

Papua-New Guinea, Department of the Public Service Commissioner, (n.d.). Careers in the public service: technical, professional, administrative. Port Moresby.


-- 1965. 'Problems in rural councils'. Paper presented to second seminar of the Australian Association for Cultural Freedom, Port Moresby.


-- 1965-. *Newsletter*, no.1-, April 1965-, Port Moresby. Available from the association, Box 2033, P.O., Konedobu, Papua.


17. History


-- 1965. 'True to their traditions', Australian Territories, 5:5:16-23.


Garia Igo Eru, 1962. 'When the second world war came', The Journal of the Public Service Association of Papua and New Guinea, 4:3:139-40.


MacGillivray, J., 1967. Narrative of the voyage of H.M.S. Rattlesnake, commanded by the late Captain Owen Stanley during the years 1846-1850, including discoveries and surveys in New Guinea, the Louisiade Archipelago etc., to which is added the account of Mr. E.B. Kennedy's expedition for the exploration of the Cape York Peninsula by William Carron, London, T. and W. Bone, 1852. Libraries Board of South Australia, Adelaide.


18. **Labour and industrial relations**


*Birch, A., 1966. 'The organisation and economics of Pacific Islands labour in the Australian sugar industry, 1863-1903', *Business Archives and History*, vol.6, pp.53-76. Sydney.


The Industrial Review, 1962-67. Published by the Department of Labour, Port Moresby, also regularly contains statistics on employment, notes on labour legislation, retail price indices, Supreme Court decisions, and current industrial issues.


19. Land: tenure, surveys and natural resources


20. Law


* -- 1967. 'The law school at the University of Papua-New Guinea', Law Institute Journal, October.


-- 1965. 'The development of a native legal profession'. Paper presented to second seminar of the Australian Association for Cultural Freedom, Port Moresby.

21. Linguistics

Allen, J. and J., 1965. 'Halia language course'. Department of Information and Extension Services, Port Moresby.

Allen, J. and Hurd, C., 1963. 'Languages of the Cape Hoskins patrol post division of the Talasea sub-district, New Britain'. Department of Information and Extension Services, Port Moresby.

-- 1965. 'Languages of the Bougainville District'. Department of Information and Extension Services, Port Moresby.


*Bass, J. and Loving, R.E., 1964. 'Languages of the Amanab sub-district'. Department of Information and Extension Services, Port Moresby.


*Bee, D. and Pence, A., 1962. 'Towards standardisation of a survey word list for Papua and New Guinea', *Oceania Linguistic Monographs*, no.6, pp.64-75.


Bunn, G. and Scott, G., 1962. 'Languages of the Mt Hagen sub-district'. Department of Information and Extension Services, in co-operation with the Summer Institute of Linguistics, Port Moresby.


Deibler, E. and Trefry, D., 1963. 'Languages of the Chimbu sub-district'. Department of Information and Extension Services, in co-operation with the Summer Institute of Linguistics, Port Moresby.


Frantz, C.I. and M.E., 1962. 'Grammatical categories as indicated by Gadsup noun affixes', *Oceanía Linguistic Monographs*, no.6, pp.44-63.


Glasgow, D. and Loving, R.E., 1964. 'Languages of the Maprik sub-district'. Department of Information and Extension Services, Port Moresby.


Hurd, C. and P., 1967. 'Nasiol language course'. Department of Information and Extension Services, Port Moresby.


*Pence, A. and Steinkraus, W.*, 1964. 'Languages of the Goilala sub-district'. Department of Information and Extension Services, Port Moresby.


Short, L.M.T., 1965. 'The phonetics and grammar of the Hula language with vocabulary and translation and notes of other dialects of the Hood Bay district'. Libraries Board of South Australia, Adelaide.


Staalsen, P.H. and Lithgow, D., 1965. 'Languages of the D'Entrecasteaux Islands'. Department of Information and Extension Services, Port Moresby.


-- 1964. 'Motu and Police Motu, a study in typological contrasts', Linguistic Circle of Canberra Publications, series A: occasional papers, no.4.


22. Literature


23. Medicine

(a) General


*van Amelsvoort, F.P.M., 1962. 'Medisch werk in het stenen tijdperk', Nederlands Nieuw-Guinea, 10:3:3-5.


(b) Health, food and nutrition


* -- 1963. 'Some other protein resources in the Territory of Papua and New Guinea', Food and Nutrition Notes and Reviews, 20:7-8:106-12.


*Couvee, L.M. et al., 1962. 'The nutritional condition of the Kapaukus in the Central High-


-- 1965. 'Food in relation to other needs of man, the example of New Guinea', Food and Nutrition Notes and Reviews, 22:9-10:91-100.


Papua-New Guinea Department of the Administrator, Project Planning Team, 1965. 'Fresh food study - Port Moresby'. Roneod.


* -- 1966. 'Report of nutritionist's visit to the Hood Peninsula, Kwikila sub-district'. Department of Public Health, Port Moresby. Typescript.


(c) Illness and disease


d) Mental health


* 1965. 'Cross-cultural psychiatry', *Australian Psychiatric Bulletin*, vol.6, no.3.


24. Military


-- 1965. 'True to their traditions', Australian Territories, 5:5:16-23.


Linebarger, P.M.A., 1965. 'Military applications of social science in Papua-New Guinea'. Department of International Relations, Research School of Pacific Studies, the Australian National University, Canberra. Roneo.

25. Missions


175


Hand, D., 1964. 'Education - we have a policy', Australian Board of Missions Review, 54:5:74-5.


26. Music


27. Non-indigenes


28. Politics

(a) Political and constitutional


Griffin, B.F., 1964. 'The impact of representative government on the district administrative system'. Paper delivered to the District Commissioners' Conference, Port Moresby, 9 September.


* Griffin, B.F., 1964. 'The impact of representative government on the district administrative system'. Paper delivered to the District Commissioners' Conference, Port Moresby, 9 September.


-- 1965. 'The legislature in Papua and New Guinea, 1951-64: how far has it succeeded in acquiring legitimacy?'. Paper presented to second seminar of the Australian Association for Cultural Freedom, Port Moresby.


Griffin, B.F., 1964. 'The impact of representative government on the district administrative system'. Paper delivered to the District Commissioners' Conference, Port Moresby, 9 September.

*Hanna, W.A., 1966. 'Australian Papua and New Guinea - Part I: policy for decolonization; Part II: Port Moresby, the Assembly and the University; Part III: Rabaul and Goroka', American Universities Field Staff Reports Service, South East Asia series, vol.24, nos 11, 12, 13.


* -- 1964. 'Towards a parliamentary ministerial system of government for Papua and New Guinea'. Paper presented to the Papua and New Guinea regional group of the Royal Institute of Public Administration, Port Moresby, 3 December 1964.


Mann, A., 1966. 'Submission to the chairman of the committee of the House of Assembly enquiring into constitutional matters'. New Guinea Research Unit library. Roneod.


-- 1962. 'Interim report from the select committee appointed to enquire into and report upon the political development of the Territory'. 11 October 1962, Port Moresby. Roneod.

-- 1963. 'Second interim report from the select committee appointed to enquire into and report upon the political development of the Territory'. 26 February 1963, Port Moresby. Roneod.


This week in the House of Assembly, 1968-. Produced by the Department of Information and Extension Services, Konedobu. Roneod. Irregular.


*United Progress Party, 1961. Draft constitution, P.O. Box 15, Port Moresby.


White, D., 1966. 'And that was 1966', New Guinea, 1:8:14-18.


(b) Elections


-- 1965. 'A Papuan election campaign: what people expected of their elected representative'. Paper presented to second seminar of the Australian Association for Cultural Freedom, Port Moresby.


-- 1967. Electoral boundaries. Published under the authority of the chairman, distribution committee. Government Printer, Port Moresby.


van der Veur, P.W., 1965. 'The first "national" election: an overview'. Paper presented to second seminar of the Australian Association for Cultural Freedom, Port Moresby.


29. **Religion, ritual and belief**


Chowning, A., 1967. 'Lakalai religion and world view and the concept of "seaboard religion"'. Roneod.


30. Research


--- (n.d.), 'Studies of co-operatives and entrepreneurs in New Guinea'. New Guinea Research Unit. Roneoed. (Includes bibliography on co-operatives.)


31. Science


32. Sociology

(a) General (includes Women and Youth)


*Oxer, R., 1965. 'The socio-cultural effects of culture contact and land shortage in the Wosera census division of the Sepik District'. Department of District Administration, Port Moresby. Roneod.


Papua-New Guinea, Department of District Administration, 1965-. Welfare quarterly, Port Moresby.


(b) Cargo cults


(c) Gambling


(d) Migration


South Pacific Commission Urbanisation Research Information Centre, 1963. 'Select bibliography on migration in the South Pacific'. LS/12/1, Noumea. Roneod.

(e) Race relations


(f) Tribal relations


(g) Urbanisation


33. Tales and myths


34. **Voluntary aid**


Chapter 6

Journals consulted and place of publication

The following journals have been consulted in compiling the various bibliographies. The years noted in brackets after some journals refer to issues which unfortunately could not actually be perused.

Acta Ethnographica, Budapest (1962)
Acta Tropica, Basel (1962)
American Anthropologist, Menasha
American Journal of Physical Anthropology, Philadelphia
American Journal of Psychiatry, Washington, D.C.
Annals of Human Genetics, New York (1962)
Anthropological Forum, Nedlands, Western Australia (first issued 1966)
Anthropological Linguistics, Indiana
Anthropologie, Paris (1966-67)
Anthropos, Fribourg
Antiquity, Cambridge, England
ANU Historical Journal, Canberra
Archaeology and Physical Anthropology in Oceania, Sydney
Architecture in Australia, Sydney
Asian Folklore, Tokyo
Asian Perspectives, Hong Kong
Asian Studies, Quezon City, Philippines (1962-65)
Asian Survey, Berkeley, California (1967)
Australian and New Zealand Journal of Sociology, Melbourne
Australian Board of Missions Review, Sydney
Australian Geographical Studies, Melbourne (1962-63)
Australian Journal of Education, Hawthorn, Victoria
Australian Journal of Politics and History, Brisbane
Australian Library Journal, Sydney
Australian Natural History, Sydney
Australian Outlook, Melbourne
Australian Territories, Canberra
Australia's Neighbours, Melbourne
Baessler-Archiv, Berlin
Bildragen tot de Taal-, Land- en Volkenkunde, 's-Gravenhage
Bulletin of the International Committee on Urgent Anthropological and Ethnological Research, Vienna
Cahiers du Pacifique, Paris (1963)
CSIRO Land Research Series, Melbourne
Current Affairs Bulletin, Sydney
Current Anthropology, Chicago
Current Notes on International Affairs, Canberra
Discovery, London
Dissent, Sydney
Economic Botany, New York (1964)
Economic Development and Cultural Change, Chicago (1967)
Education News, Sydney (1963-67)
Economic Papers, Sydney
Ethnology, Pittsburg
Ethnomusicology, Middleton (1967)
Ethnos, Stockholm (1963-67)
Etudes Melanesiennes, Paris (1966-67)
Expedition, Philadelphia (1967)
Far Eastern Economic Review, Hong Kong
Food and Nutrition Notes and Reviews, Canberra
Foreign Affairs, New York
Hemisphere, Sydney
Historical Studies of Australia and New Zealand, Melbourne
Human Biology, Detroit
Human Relations, London (1962-65)
International Organisation, Boston (1962, 1964-65)
International Review of Missions, London
Jahrbuch des Museums für Völkerkunde zu Leipzig, Berlin
Journal de la Société des Oceanistes, Paris
Journal of American Folklore, Richmond, Va. (1963)
Journal of Christian Education, Sydney
Journal of Conflict Resolution, Ann Arbor, Michigan (1962)
Journal of Developing Areas, Illinois (first issued 1966)
Journal of Industrial Relations, Sydney
Journal of Pacific History, Canberra (first issued 1966)
Journal of the Papua and New Guinea Society, Port Moresby
Journal of the Polynesian Society, Wellington
Journal of the Public Service Association of Papua and New Guinea, Port Moresby (1964-67)
Journal of Tropical Geography, Singapore
Kumul - Quarterly Police News, Port Moresby (first issued 1966)
L'homme, Paris
Linguistic Circle of Canberra Publications, Canberra
Man, London
Mankind, Sydney
Melbourne Studies in Education, Melbourne (1962-63)
Mitteilungen aus dem Museum für Völkerkunde zu Leipzig, Leipzig
New Guinea, Sydney (first issued 1965)
New Guinea Highlands Bulletin, Goroka (1962)
New Guinea Research Bulletin, Canberra
Oceania, Sydney
Oceania Linguistic Monographs, Sydney
Oceanic Linguistics, Honolulu (1962-64)
Outlook, Sydney
Pacific Affairs, Vancouver (1963, 1966-67)
Pacific Linguistics, Canberra
Pacific Viewpoint, Wellington
Paideuma, Wiesbaden
Papua and New Guinea Journal of Education, Port Moresby
Papua and New Guinea Medical Journal, Port Moresby
Papua and New Guinea Scientific Society Report and Proceedings, Port Moresby
Papua and New Guinea Scientific Society Transactions, Port Moresby
Parliamentary Affairs, London (1962-64)
Pottery in Australia, Sydney
Practical Anthropology, Tarrytown
Psychiatry, Washington, D.C.
Public Administration, Sydney
Quarterly Review of Agricultural Economics, Canberra
Records of the South Australian Museum, Adelaide
Round Table, London (1967)
Royal Anthropological Institute Index to Current Periodicals, London
Sarawak Museum Journal, Kuching (1962-63)
Social Survey, Melbourne
Sociological Abstracts, New York (1962-63)
Sociologus, Berlin (1962-63)
South Pacific Bulletin, Noumea
South Pacific Commission Technical Papers, Noumea
South Pacific Planter, Sydney (first issued 1966)
Southwestern Journal of Anthropology, Albuquerque (1966)
The Australian and New Zealand Journal of Sociology, Melbourne (first issued 1965)
The Australian Geographer, Sydney (1963-67)
The Australian Journal of Agricultural Economics, Melbourne
The Australian Journal of Politics and History, Brisbane
The Australian Quarterly, Sydney
The Economic Record, Melbourne
The Education Gazette, Sydney
The Industrial Review, Port Moresby
The Institute of Race Relations Newsletter, London
The Kibi, Port Moresby (first issued 1962, irregular)
The Local Government Bulletin, Port Moresby (first issued Sept. 1966)
The Papua and New Guinea Agricultural Journal, Port Moresby
The Town Planning Review, Liverpool
Tribus, Stuttgart
Vestes, Sydney (1962)
World Politics, Princeton, N.J. (1964-65)
World Review, Brisbane (1964, 1967)
Zeitschrift für Ethnologie, Braunschweig
Chapter 7

Theses on Papua-New Guinea and Irian Barat

Abbi, B.L., 1964. 'The Mailu: a study of the changing structure of local groups'. Ph.D., the Australian National University.

Ashton, C., 1968. 'European colonial and ruling minorities - Australians in Papua-New Guinea over the period 1930 to the present'. B.Lit. in Social Anthropology, Oxford.


Bee, D., 1965. 'Usarufa distinctive features and phonomes'. M.A., University of Indiana.


Cheetham, R.J., 1966. 'Land settlement as a technique of indigenous economic development in Papua and New Guinea'. M.Sc.Ag., University of Sydney.


Colombo, D.W., 1967. 'Low cost housing for the expatriate population of Port Moresby'. M.Arch., University of Sydney.

Criper, C., 1967. 'The politics of exchange - a study of ceremonial exchange among the Chimbu'. Ph.D., the Australian National University.

Dakeyne, R.B., 1964. 'Stability and change in the Yega economy'. M.A. in Geography, University of Sydney.

Davis, D., 1964. 'Wantoat clauses'. M.A., University of Indiana.


Glasbe, R.M., 1962. 'The cognatic descent system of the Huli of Papua'. Ph.D., the Australian National University.


Healey, A., 1964. 'The Ok language family in New Guinea'. Ph.D., the Australian National University.

Healy, A.M., 1962. 'Native administration and local government in Papua, 1880-1960'. Ph.D., the Australian National University.


James, D., 1966. 'Siane morphophonemics'. M.A., University of Illinois.


Kaufman, C., 1968. 'Six local pottery traditions in the Sepik area'. Ph.D., University of Basel.


Laycock, D.C., 1962. 'The Ndu language family (Sepik District, New Guinea)'. Ph.D., the Australian National University.

Lea, D.A.M., 1964. 'Abelam land and sustenance'. Ph.D., the Australian National University.


Lewis, P.H., 1966. 'The social context of art in Northern New Ireland'. Ph.D., University of Chicago.


Ploeg, A., 1965. 'Government in Wanggulam'. Ph.D., the Australian National University.

Roe, M., 1962. 'A history of southeast Papua to 1930'. Ph.D., the Australian National University.

Ryan, D., 1965. 'Social change among the Toaripi, Papua'. M.A., University of Sydney.
Ryan, D., 1968. 'Urban adjustment of Toaripi migrants'. Ph.D., University of Hawaii.


Strathern, M., 1968. 'Women's status in the Mt Hagen area, a study of marital relations and court disputes among the Melpa-speaking peoples'. Ph.D., Cambridge.


van der Meulen, J., 1962. 'Fish marketing in Papua and New Guinea'. Faculty of Agricultural Economics, University of New England, Armidale, N.S.W.


van Nunen, B.O., 1966. 'The community of Kugapa'. M.A., University of Sydney. (Report of research in 1956-58 among a group of Moni in the Central Highlands of West New Guinea. A general survey of Moni culture and analysis of the social structure.)

van Rijswijck, O., 1967. 'Bakoidudu: resettlement and social change among the Kuni of Papua'. Ph.D., the Australian National University.

Voorhoeve, H.W.A., 1965. 'Zorg voor Moeder en kind in Ontwikkeling'. Ph.D., University of Amsterdam. (English summary.)


Warmenbomen, H.J., 1967. 'Australian concern with the political disposition of New Guinea (east and west)'. Ph.D., University of Melbourne.

Chapter 8

Opportunities for research in Papua-New Guinea and Irian Barat

1. Anthropology and sociology - by R.N.H. Bulmer, professor of anthropology and sociology, University of Papua and New Guinea

Opportunities and priorities in terms of regions or localities. Opportunities for valuable ethnographic and sociological research in Papua-New Guinea remain innumerable. If, for convenience, it is assumed that speakers of each distinct language possess a distinct culture, then less than one-quarter of the 500 or more cultures in this country have been subject to intensive ethnographic enquiry. At the same time, rewarding studies can still be undertaken of nearly all the cultures which have already been at least partially described, either because changes have occurred since early pioneer studies were made, or because there are aspects of the cultures concerned which have still received little attention, or for both reasons.

Establishing priorities for the immense number of fruitful research projects which can still be undertaken is a very difficult task, partly because synopses, either by topic or by culture-area, are available for so little of the existing literature, and partly because of restricted communication of a great volume of unpublished and mainly recently accumulated research findings. A further difficulty in listing priorities on a geographical basis is that the situation changes month by month. Any listing of specific locations, particularly in recently contacted areas which offer obvious opportunities, is likely to be out-of-date before it is printed and circulated. Of 68 ethnologists and social anthropologists working in Papua-New Guinea in 1968, 23 were studying communities with less than two decades of direct European contact, and at least 15 of these were in communities with less than a decade of contact.

One may nevertheless note that at the time of writing (May 1969) the only very recently contacted areas of any size are in the inner regions of the Western District and West Sepik District. However, there are small pockets of population in almost every other district, but most notably East Sepik, Western Highlands and Southern Highlands, which have as yet been little influenced by Administration or missions. Ethnographers considering work in these remote regions should, however, be prepared for the difficulties they face: small communities and low population densities, which mean that rapid accumulation of data is difficult; languages that have probably not been studied, and few if any local speakers of Melanesian Pidgin or Police Motu, so that adequate preparation in learning and recording a language from scratch is vital; problems of physical access, so that equipment and supplies are difficult and costly to import, and medical emergencies are hard to cope with. In short, such studies should not be undertaken by novice fieldworkers unless they are unusually well-prepared (both academically and practically), well-financed and with, preferably, a period of at least eighteen months to two years at their disposal.

There are other regions of Papua-New Guinea, with considerable periods of contact history, and in some cases relatively easy of access, which have received disproportionately little attention, and within which almost any kind of intensive ethnographic enquiry should be profitable. These include the lowland areas of the middle and lower Ramu Valley and middle

1 The section by Mr J. Golson on opportunities for research into New Guinea's archaeology and prehistory had unfortunately not been received by the time this bulletin was ready for the press. Interested persons are referred, however, to Mr Golson's earlier paper on this subject in Current Anthropology, 8:4:434-5.
Sepik Valley, New Ireland, and the greater part of the coastal and inland region of mainland Eastern Papua (Milne Bay District and eastern sections of Central and Northern Districts). However, it may be stressed that there are also opportunities for ethnographic research in every district and sub-district of the Territory.

**Opportunities and priorities in terms of topics of research.** The above will have made it clear that basic ethnographies remain a high priority, regardless of the problem-orientation of the individual research-worker. However, within the broad field of ethnography of essentially traditional societies, one may note the desirability of much more intensive work on traditional technology, on human ecology (necessarily in collaboration with human biologists and geographers if the fullest advantage is to be obtained), on ritual and symbolism, on folk-science, and in ethno-musicology.

It is also extremely important to stress the necessity, from the point of view of Papua-New Guinea as a developing nation, of greatly increasing the scale of research into new and changing institutions. The 15 social anthropologists and sociologists engaged in 1968 in these kinds of enquiries were in nearly all cases sponsored and financed by Australian universities, and the great majority by the New Guinea Research Unit of the Australian National University. Direct sponsorship of this kind of research by overseas universities and foundations is extremely desirable. The theoretical importance of such studies, as well as their potential for practical application, is obvious.

**Procedures for the selection of a fieldwork area.** For intending researchers who have not previously worked in New Guinea and who have not been engaged to do a specific job within a broader programme, it may be helpful to outline normal procedures which can be adopted in selection of a fieldwork area.

It is assumed that the intending fieldworker has a specific problem or range of problems he wishes to investigate. In some cases the problem or problems will be area-specific, closely related to published ethnographies on a particular society or group of societies. If this is so, the proposer should contact recent and current fieldworkers in the immediate region (obtaining names from the present survey, from the periodic newsletter *Man in New Guinea*, and by writing to the New Guinea Research Unit or the Department of Anthropology and Sociology, University of Papua and New Guinea, both of which keep files on current research). He can thus check that the study he intends is not already being undertaken, and obtain information on the feasibility of the project he proposes. He should also check with the Director of the Department of Social Development and Home Affairs, Konedobu, regarding the practical feasibility of his study.

If the intending fieldworker's problem or problems are not area-specific, he should first contact other ethnographers or sociologists interested in the same or closely related problems who have recent first-hand knowledge of conditions in New Guinea (names can again be obtained from the surveys and institutions mentioned above). Having decided that a particular society or region might best suit his requirements, he should again check to ensure that he is completely up-to-date on current and projected research in that area. Advice may be sought from the Summer Institute of Linguistics (Post Office, Ukarumpa, Eastern Highlands District) and from the Department of Linguistics, the Australian National University, as to current or projected linguistic work in the area. Again, the Director of the Department of Social Development and Home Affairs should be consulted as to the feasibility of the project from the Administration point of view. In the case of work in rural areas the fieldworker should also enquire what mission bodies are operating in the region and the period of their operation there, their policies, and the extent to which they have engaged in ethnographic or linguistic studies. Even if an ethnographer wishes, for purposes of his field enquiry, to disassociate himself completely from Administration and missions, he cannot avoid being concerned with the effects of their activities; and in remote areas he will almost certainly have to rely on the good-will and co-operation of one or both if he is to maintain his communication and supply lines.

It should be unnecessary to add that any intending fieldworker should have made a thorough study of relevant published materials before arriving in New Guinea, through the A.N.U. Ethnographic Bibliography of New Guinea (1968), the present survey, and the newsletter, *Man in New Guinea*. In order to obtain access to unpublished official records,
which are often of the greatest assistance, application should be made in advance to the Secretary, Department of the Administrator, Konedobu (see Man in New Guinea, 1:3:1, May 1969).

Finally, regardless of the main focus of his interest, any field worker should recognise that certain of his findings will be of potential importance to administration and other agencies concerned with the welfare and social economic development of the peoples among whom he works. He should therefore attempt to ascertain before he starts whether, for example, the Department of Health or the Department of Education have special problems or interests in the region or topic he has chosen, and the extent to which his enquiries may throw light on these issues: and he should take trouble to ensure that any reports or publications he produces are channelled to those agencies which may be able to make good use of them. He should also take every opportunity to explain the objectives of his research, not merely to the local communities in which he works, but to other New Guinea residents, and especially to indigenous officials and politicians on whose comprehension of the value of ethnographic and sociological research to New Guinea the future of these disciplines in this country depends.

2. Demography - by D.J. van de Kaa, research fellow in demography, the Australian National University

The lack of accurate information on ages and on the dates at which various events in each person's life occurred considerably hampers detailed demographic research in a country such as New Guinea. The sort of research that can be undertaken fruitfully in a given small area depends largely on the history and characteristics of the area and the amount of time and money available to the investigator. If an area is carefully selected and is relatively rich in birth and other records, or the researcher has sufficient resources to study a large enough population over a sufficiently long period to make his own observations, possibly very rewarding research could be undertaken into, for example, the age at menarche, the age at first marriage, the pattern of infant mortality and the length and composition of birth intervals. Where data can only be collected retrospectively they will invariably be subject to errors of recall lapse and errors in relation to the reference period. Such material is generally not very suitable for the study of refined demographic measures or demographic change, but it can give a satisfactory insight into the situation at a given point of time. In particular, if comparison with other small areas is possible and data of a qualitative nature can be collected to explain observed differences between certain groups and to illuminate how demographic behaviour is governed in the different societies, research of this nature could be quite valuable. From the work that has been done so far, or is still going on, it is apparent that some of the more isolated groups in the Highlands and elsewhere (Bundi, Simbai, Kukuku) may be of great interest in this respect. Given the rapid expansion of services, work there is, moreover, relatively urgent.

Although a mortality survey has been going on in the Baiyer River area since 1962, there is a great need for more, and more comprehensive research into the demography of Highland populations. As far as this can be judged they may display reproductive patterns rather different from some coastal populations in highly malarial areas, possibly geared to a lower mortality and with a view to local resources. The recent rapid acceptance of intrauterine contraceptive devices in the Kainantu area may reflect a great awareness of the consequences of population growth and size, and of the 'hunger for land' noticed by Brookfield and Brown among the Chimbu. As the recently established Papua and New Guinea Institute of Human Biology will start multidisciplinary work in the Highlands (using Goroka as a base) towards the end of 1969, and demography is one of the disciplines involved, good opportunities may be offering there for people specialising or with a major interest in the field.

Outside the Highlands, mortality surveys are continuing in the Anguganak, Wam and Wingei, Kiriwina and Oro Bay areas, while more comprehensive work takes place, for example, on New Ireland, in the Lower Ramu and Simbai areas and is about to start on Karkar Island. This still leaves large parts of coastal Papua and New Guinea - the Western District, for example - virtually untouched, and it may be especially in these areas that baptismal and birth records of missions could be of great help during research. The coastal areas - in
particular the urbanised sections of it - may also offer the best prospects for a study concentrating on Knowledge, Attitude and Practice of family planning. Such work becomes increasingly necessary and such surveys should not only try to assess the basic situation but aim to measure the changes that would occur under influence of a publicity campaign of moderate intensity.

On a country-wide basis the analysis of the 1966 census data merits the greatest attention. Tables based on the single entry tabulations will be published shortly as Preliminary Bulletin No.20 and double entry tabulations will gradually become available. A full utilisation of the census data on age, marriage, literacy, education, occupation, industry, qualifications, etc. is clearly in the country's interest and should ensure that a second census will be taken in 1971. Prospects for research into problems of labour force, manpower, urbanisation and migration are better than ever before and such investigations on a regional basis could also be very rewarding.

3. Economics - by R.T. Shand, senior research fellow in economics, the Australian National University

The following are some specific topics offering good research possibilities:

1. Empirical measurement of the effects of infrastructure investment on the development of rural industries, e.g. trunk and feeder roads, airstrips and feeder roads, port facilities and feeder roads.

2. The effect of transport costs on the final price of consumer goods at different locations.

3. An economic analysis of the development of coffee and cocoa processing and marketing in New Guinea.


5. An analysis of the timber industry.

6. An analysis of effects of changes in administrative and Commonwealth departmental expenditures upon the level and direction of private investment.

7. The impact of a large-scale mining enterprise on the development of the economy.

4. Education - by E. Roe, professor of education, University of Papua and New Guinea

Education beyond the elementary level was virtually non-existent 20 years ago and tertiary institutions are even more recent. Very little educational research has been done and there are extensive opportunities and an urgent need. There have been no data to support educational policy decisions, and little objective examination of those policies in a time of rapid expansion. The need for research into the effectiveness of what is being done administratively, in curriculum development, in the methods and materials used in the classroom is obvious enough. Much other research with rapid feedback in terms of practical utility is required, and the Educational Research Committee set up by the Department of Education early in 1967 issued a very lengthy list of 'questions which are of interest to us'.

Simultaneously with the seeking of quick answers to current educational problems, major projects of a fundamental kind are needed. Some of the significant gaps are indicated by such questions as 'How do Papuan and New Guinean children (and adults) learn and in what ways do their learning processes differ from those identifiable in Western societies?' 'What are the characteristics of indigenous patterns of teaching and learning in normal village life and how can these patterns be used to bridge the cultures?' There are a hundred related questions dealing with child development, motivation, family relationships. Also related, but another major area, are the problems of teaching and learning in a second language. Problems of design of materials for teaching and learning are again related, and these may involve research into visual perception as well as language.
It is possible that much of this fundamental research can be closely linked with or grow out of research into more immediate practical problems. For instance, the work of the University of Papua and New Guinea's educational materials centre in studying the appropriate-ness of teaching and learning materials for use with Papuan and New Guinean students will inevitably involve language problems, problems of 'how they learn' and of bridging the cultures - fundamental questions of the kind referred to above. The opportunities for research into education in Papua-New Guinea should not be isolated from the opportunities for anthropological, psychological and linguistic research; indeed, the close co-operation of such researchers and their interest in educational problems may be essential if those problems are to be solved or even thoroughly understood.

5. Geography - by H.C. Brookfield, professorial fellow in human geography, the Australian National University

Though the number of human geographers who have worked in New Guinea since 1950 is insignificant alongside the number of anthropologists, there are now about a score of human geographers who have done significant basic research in fields ranging from cultural ecology to the quantitative study of transport networks. The two main centres for such work remain the Australian National University (including its New Guinea Research Unit) and the University of Papua and New Guinea, but some work has been done directly from other Australasian and American universities, and geographers from Britain, France and Germany have also worked in New Guinea in recent years. The research possibilities of New Guinea as a laboratory for experiment in a range of fields are thus becoming quite well known, and there is little further need to proselytise; indeed, it might be more to the point to remark that there are other neglected research areas in the developing tropics of equal potential interest.

What New Guinea does offer that is of particular, if fleeting, value is an example of an ecologically diverse small country that is undergoing accelerating social and economic change under the impetus of a level of external subsidy rarely attained in other and larger colonial territories before independence. The multifarious effects of these changes in reorganising the spatial structure of the economy, in accelerating redistribution of population, in changing the use and evaluation of resources, and in maintaining impetus for introduction and diffusion of innovations, are all capable of study at any level from the national to the most local. The country offers examples of a range of societies from the almost untouched to the 'economic take off' stages. There is a large field here, only beginning to be worked through inquiries into internal migration, the transport network, secondary industry and regional development. At the local level there are only a few studies of the impact of the new innovations. Perhaps the most striking single problem calling for research is the emergence of central places, and the development of new forms of zonation around these places and along the lines of the modern route network linking them; the spontaneous emergence of central places of minimal order has been remarked, and one example described, but this is a phenomenon little discussed from actual field observation in the literature, and of which New Guinea offers many current examples.

The micro-study approach to problems in cultural geography has been particularly well developed in New Guinea, where a number of very localised enquiries have been made, each of which has represented a methodological advance on its predecessors. Data collection has become more sophisticated, and there is now emerging a body of comparable data on such matters as land use technologies and sequences, labour input, farm field relationships, and settlement patterns. Present trends are in the directions, first, of a more experimental approach to the study of agricultural/horticultural methods, and second of the development of theoretical models in such areas as farm-field relationships, settlement pattern, and sequential changes in land use. The value of New Guinea as a field laboratory for this sort of work is very great in view of its cultural and ecological diversity, its wide variety in agricultural types and population density and the presence of some societies whose agriculture is still virtually unchanged from pre-contact times. If one plea is to be made in this work, it is that greater attention should now be given to the quite large populations intermediate in density between the closely-peopled central highlands, and the sparsely-settled areas of true swidden-type cultivation which include most of the country, but only a minority of the people. There is also a dearth of good material on
coastal populations depending mainly on sea and reef foods, and trading these for starch foods with adjacent inland populations. In all this work, however, the greatest need today is to relate the New Guinea data more closely to general theory in such fields as agricultural location and settlement, and to obtain cross cultural comparisons with other parts of the tropics.

There are also wider problems in cultural geography. Beginnings have been made by both geographers and anthropologists on the study of long distance trading systems, which are still surprisingly active, and which have been of major importance in the diffusion of innovations before colonial contact. The relationship of traditional to modern trading systems and methods has not been sufficiently investigated. There are also large fields for study in regional differences in food staples, cultivation methods, settlement patterns, house types and clothing, which call for the effective interrelation of local material with wider inquiry.

Perhaps the most neglected field of all, however, is the still dominant expatriate sector of the money economy, its institutions and creations. Limited research is being undertaken on the plantation industry, but this large topic remains essentially unexplored. The towns are seen too exclusively as places for the urbanisation of New Guineans; their function as centres of industry and trade is insufficiently examined. The role of the trading companies in development, and its relation to small-scale expatriate enterprise, has a spatial and social as well as an economic aspect. Both overt Indonesian policy in the west, and de facto Australian policy in the east, are tending toward the ever closer integration of New Guinean with metropolitan economies. This has important consequences for the location of activity, as well as its nature and scale, and needs to be subjected to thorough examination at this stage of development.

6. **Government and politics** - by R.S. Parker, professor of political science, the Australian National University

Research on contemporary aspects of government in Papua and New Guinea has only begun to get under way in the past five years. Hence a specification of research gaps and opportunities over the next decade must cover virtually the whole field. The following is an attempt to sketch the main questions for research as they appear at present.

1. **The operation of the House of Assembly.** House procedure, documentation, format of legislation, language problems, etc. in relation to the capacities and understanding of elected Members. The pattern of Members' participation in debate, committees, etc. Political education measures for Members, and their effect. Blocs, parties, voting, leadership, among Members.

2. **Relations between elected Members of the House and (a) their constituents.** Contacts with electorates; relations with special groups (tribal, racial, organisations and associations) within their own and other electorates; intermediary activities on behalf of constituents; preparation for ensuing elections; attitudes of electors to Members, according to the latter's sophistication, experience, area of origin, race, involvement in administrative and House responsibilities, etc. (b) **The Administration.** Co-operation and tension between Members and Administration officers at District and sub-district level; use of Members by the Administration as medium of communication or influence; contacts of Members with Headquarters Departments and Department of Territories; Administration assistance to or manipulation of Members in the House; relative attitudes of constituents towards Members and local Administration officers. Effects on political development of different rates of 'localisation' of the legislature and the bureaucracy.

3. **The Under-secretary and Ministerial Member systems.** Appointments of Parliamentary Under-secretaries in the first House of Assembly (1964-67) were replaced by a form of Ministerial appointments from elected Members in the second House (1968-71). Subject to the changes involved, research interests will remain similar. Role-conflicts: between representative, party and executive loyalties; between administrative duties and cultivating the constituency. Effectiveness and content of political education and administrative training measures. Relevance of systems to future development of self-government. Relations of Under-secretaries/Ministerial Members with each other, with other elected Members,
and with official Members. Their effectiveness as Departmental spokesmen in the House. Modes of socialisation and adaptation of indigenous politicians in the new political culture.

4. **Moves toward internal self-government.** History and operation of Select Committee on Constitutional Development. Constitutional changes of 1967, to take effect in second House of Assembly. Attitudes of political parties, and of other groups, to home rule as an internal political issue. Australian and New Guinean official and unofficial attitudes to future constitutional status.

5. **The growth of political communication and national or regional sentiment.** Sociological studies of communications, physical and social. Orientation of individuals and groups towards tribal, regional, Papuan or New Guinean, or 'national' entities. Spread of symbols of 'nationalism' or regionalism. Transference of traditional symbols to the modern context. Political organisation, parties, ideological associations. Political aspects of cargo cults. Emergence of charismatic and other forms of personal leadership. Comparative studies of communication within European and local elites.

6. **Education and political development.** Australian educational policy: 'uniform development', relative emphasis given to primary, secondary, technical, agricultural and university education. Civics and politics content in syllabuses. Control of syllabuses. Recruitment, qualification and localisation of the teaching cadres. Relation of education policy to occupational structure and economic development.

7. **The evolution of the political and other elites.** Studies of: existing political leaders; student groups; leaders in interest-group associations; election candidates; emerging professional cadres - all in relation to: age, occupation, social status, race or 'tribal' origins, education, experience, religious affiliations, etc. 'Community power-studies', especially in urban centres.

8. **The development of the local government system.** Modes of originating local government councils - official and local initiative. Pace of extension of the system, and policy behind it. Amalgamation, division, suspension and abandonment of Councils. Council personnel - elected members and appointed officials, and 'ward committees'. Training of Councillors and staff. Changing patterns of Council membership and leadership. Relations of Councils with: village communities; traditional leaders; Advisers; Administration generally; other Councils; organised interest-groups; private entrepreneurs. Extent and use of Council powers, and exercise of Administration controls over rule-making and administration. Involvement of Councils in wider political issues. Regional and Territory-wide conferences of Local Government Councils. Evolution of multi-racial councils and urban local government. Town and District Advisory Committees - their functions, powers and influence. Significance of Councils for political integration. Problems of Council legitimacy in rule-making and application.

9. **The politicisation of interest-group associations.** Involvement in politics - e.g. by statements on public issues, articles and editorials in association organs, sponsoring, assisting or hindering political parties and election candidates; petitions, deputations, strikes and demonstrations; other forms of systematic propaganda. Bodies for study now include: Workers' Associations, student, teacher and police associations, Public Service Association, business, professional and co-operatives' associations, ex-servicemen's organisations and tribal and other associations within the armed forces, missions and other religious groups.

10. **Patterns of conflict resolution.** Administration of justice: formal and informal court systems; movement from 'Administrative adjudication' to 'separation of powers'; selection and training of court officials; political norms in customary and introduced law. Extra-legal conflict-resolution: the role of traditional norms and institutions; 'pay-back'; 'tribal' warfare; violence as a political technique. Political roles of army and police.

11. **Election studies.** Studies of future House of Assembly elections, shaped in the light of an appraisal of the organised inter-University studies of 1964 and 1968. Studies of by-elections as per Wolfers on Henganofi, 1967. Studies of local government council elections can be highly fruitful, as shown by Marie Reay on Wahgi and Goroka.
12. **Structure and process of administrative policy-formation.** Relative roles of and relations between Administrator and Assistant Administrators, Administrator's Council, Under-secretaries or Ministerial Members, Central Policy and Planning Committee and its successors, Economic Adviser, Land Development Board, Departmental Heads, Public Service Commissioner, District Commissioners, and the Department of Territories, Minister and Cabinet. Organisation and operation of the Department of Territories. Communications within the bureaucracy.

13. **Localisation and training of the public service.** Operation of localisation measures. Relations between local and expatriate officers. Differential salaries and conditions: determination, arbitration and effects - political and administrative. Preparation of local officers for administrative responsibilities. Effects of localisation on recruitment, retention and attitudes of expatriate officers. Contract employment, inducements, compensation scheme, and training, for expatriate officers. Analyses of composition of Public Service by age, training, qualifications, length of service, breadth of experience, and so on. Political and industrial activities of public servants, and measures to regulate them. Effect of Public Service Association politics on localisation.

14. **Development of Australian policy in relation to Australia's interests.** Implication of Papua and New Guinea for Australian policies in fields of external relations (including international organisations, e.g. UNO, ILO, Trusteeship Council, Committee of 24); defence; trade; migration; and internal economic development of Australia. Apparent trends in Australian policies, past and present. Significance of West Irian for internal New Guinea politics and for Australia's relations with Indonesia.

15. **New Guinea's future role in the international system.** Legal and political status of the two Territories. Problems of integration. Alternatives for relations with Australia. Local communications with and attitudes to Asia, Africa, UNO, etc. External influences on Papuan and New Guinean opinion. Development of external aid to the Territories.

7. **History** - by H.N. Nelson, lecturer in history, University of Papua and New Guinea

The comments made by Dr R.G. Crocombe when he summarised the opportunities for historical research in 1965 (*Current anthropology*, 8:4:437) are still relevant. There are extensive opportunities for research, but if the research is to be concerned with the vast majority of the people of New Guinea then non-documentary methods will have to be used. Other disciplines - anthropology, archaeology, botany, linguistics, geology, geography, zoology - will provide much information, but in addition historians will have to undertake extensive fieldwork. In the few areas where this has already been attempted, a richness of material has been found in the oral traditions of the people. The research student who hopes to work effectively among oral traditions must be prepared to learn the language of the people and spend considerable time in cross-checking. Such documentary sources as are available may provide additional checks and establish a chronological framework.

Apart from their obvious use in the writing of recent pre-contact histories of particular groups of people, oral sources will have to be used before worthwhile histories can be written of many institutions and events. The experiences of the people of New Guinea during the second world war, as suggested by Professor K.S. Inglis at the Second Waigani Seminar, is a subject which could be largely covered by an interview method. And, of course, on the war there are extensive documentary checks and there is the fieldwork carried out by those anthropologists who worked in New Guinea either during or immediately after the war. Mission work needs to be examined from the perspective of the recipients and the non-European teachers - the Polynesian and New Guinean pastors and catechists. Some particular incidents, such as the Rabaul strike, should be worthwhile studies if the oral evidence still available were placed alongside the documentary evidence. Luluais, Village Constables, Local Government Councillors, Policemen and Medical Officers should be able to give interesting accounts of their experiences, and at the same time make clear their beliefs about the institutions and men they served. Few comprehensive biographies of New Guineans have been written.

The detailed documentary material covers a brief period of time (the history of newspapers in New Guinea goes back only a little over fifty years), but it is still extensive and as
yet little used. As a result of the war some papers, particularly those in the Mandated Territory, were lost; and the climate has caused others, especially those kept on out-stations, to deteriorate. Fortunately duplicate files or summaries are often available because much material was submitted to metropolitan governments and mission societies.

Some administrative history has been written on the Murray and MacGregor periods in Papua; by contrast the period of Australian administration under the Mandate is virtually untouched. Generalisations making comparisons between the types of rule in different areas have been formed, but they are not based on the necessary detailed preliminary research of either the administrations or the peoples on whom the administrations were imposed, and can only be accepted as hypotheses. When more research has been done, New Guinea will offer rich opportunities for comparative studies. The Dutch, Indonesian, German, British and various Australian administrations - Papuan, Expeditionary Force, Mandate, Angau, and Post-war - should all reveal differences of intention, method and effect.

Apart from studies of the gold industry and retrospective glances at some present industries and companies, practically no economic history has been written. Histories of various industries (particularly of the plantation crops), companies, trade patterns, transport, and population growth and movement would all contribute to a general understanding of the economic history of New Guinea. Some information outlining the impact of European goods and techniques on New Guinea communities has been collected by anthropologists. In limited areas changing land use patterns have been documented by anthropologists, archaeologists, botanists and geographers. By using this material and supplementing it with fieldwork and documentary evidence, economic histories relevant to all the people living in an area could be written.

Studies of land legislation, the development of local government, relations between the League of Nations and the Australian Administration of the Mandate, and some aspects of educational history have been made, but other topic approaches would be equally fruitful. New Guinea is an island, yet writings on New Guinea are rarely concerned with the sea and the people's relations with that part of their environment. Another neglected field is the history of non-indigenous communities other than Europeans. It is from the carefully researched topic histories and, as Crocombe pointed out, from detailed studies restricted to small areas or single language groups that the basic information needed at present to support broader generalisations will be accumulated.

One important development which has taken place since 1965 is that New Guinea history is now taught much more widely. The new tertiary institutions in Melanesia teach New Guinea history, but in addition New Guinea history is being taught overseas either as an extension of regional studies of the Pacific or South-East Asia, or as a special interdisciplinary study as at La Trobe University, Melbourne. The increased teaching of New Guinea history will increase the demand for more historical writing on New Guinea and produce more students likely to take an interest in the area. The range and number of papers presented at the Second Waigani Seminar were an indication of both increasing interest and work in Melanesian history.

It has already been made clear that the historian working in New Guinea history must be more concerned with non-documentary evidence and with synthesising material supplied by other disciplines. Recent historiographical writing on Africa and Asia indicates other ways in which the writing of New Guinea history may differ from that in European countries. Future writers of the history of New Guinea may have to free themselves of European assumptions about the people and their past at the same time as they avoid writing history which reflects the intense emotions and growing nationalism of the present.

8. Law - by L.W. Herron, Department of Law, the Australian National University

Perhaps the most promising recent development in legal research is the formation of the New Guinea Legal Research Council comprised of interested members of the Judiciary and the legal profession, and academics, both in New Guinea and Australia. In September 1968, a seminar was held by the council at the Australian National University at which were presented a number of papers in which various suggestions for legal research were made. A summary of these suggestions will indicate some of the opportunities, and may be used as some guide to priorities, for research in the branches of law dealt with by the speakers.
Suggested general approaches. Professor P. Lawrence of Queensland University and Mr H.L. Wooten, Q.C., suggested contrasting general approaches to legal research. The former advocated an interdisciplinary approach by, ideally, lawyers with anthropological training or anthropologists with legal training; they should investigate aspects of life relevant to the development of a New Guinea Civil Law. Thus the development of new law would take full account of existing and developing native usages.

Mr Wooten, Q.C., tended more to a comparative lawyer's approach: he foresaw a limited role for customary law and advocated 'a wide comparative study' drawing on the law and experience of many countries as well as native customary laws with a view to laying the foundations of future legislative and judicial development.

Procedural law. Mr B. Brown of the Australian National University drew attention to defects in the present official courts system and made suggestions for reform. Brown's 'principal concern is with the most frequent point of jural contact and clash between the two cultures (traditional and western) - the system of Local Courts'. Continuing research would be needed in this field to appraise the results of any changes made.

Relevant here is the suggestion made by Professor Lawrence in his paper for research into evidentiary, probative, procedural and retaliatory usages based in the traditional culture and socio-political systems of the people and influencing the work of official courts and Native Magistrates.

Substantive law. Dealing with family law, Mr R.S. O'Regan of the University of Papua and New Guinea stated his opinion that immediate research is necessary on: (1) the administration of customary family law in the courts, (2) the ascertainment, recording and collating of customary family law for use as a guide to the courts, and (3) choice of law when two or more customary systems of family law are relevant to the case. He pointed out that custody and adoption are both exclusively within Supreme Court jurisdiction, that disputes in these matters are numerous and that there is a need to find ways to determine such disputes 'at some lower, more accessible level of the official judicial hierarchy'.

Suggestions for research in land law were put forward by Mr W.A. Lalor, the Public Solicitor for T.P.N.G. With respect to alienated land he advocated studies of the validity of its acquisition, especially the determination of the fact and extent of ownership of the transferor; the policy to be adopted towards defectively acquired title; and the desirability and possibility of a registration system.

With respect to customary land Mr Lalor said that research is needed into the validity of the factual premises underlying current Land Ordinances enacted in pursuance of Australian government policy. He stated these premises as follows: (1) that there exist considerable areas of ownerless land, (2) that customary ownership is incompatible with economic development, (3) that registered individual ownership is the most efficacious method of promoting the agricultural development of a country and the economic well-being of the people, (4) that the customary owners will consent to conversion of their land from customary tenure to individual fee simple.

Professor P.G. Nash of the University of Papua and New Guinea examined the activities of group businesses and called for sociological, economic and legal analysis of them, the expectations of their contributors, the obligations of their leaders, the sharing of their profits, and the economic viability of the businesses themselves.

The above suggestions brought forward at the seminar are only a few of the problems needing investigation. No attention was given, for instance, to constitutional or international law, or to wrongs, or matrimonial, industrial or mining law, in all of which there are problems inviting attention, problems which are of the greatest significance and likely to be disruptive at the international, national, local and personal levels.

Since most commentators have remarked on the need to collect and collate the raw material of customary and introduced law, we enter a plea that the rich pickings that yet lie unexposed in the notebooks of anthropologists and other field workers be worked over and brought to light by their custodians wherever possible.
9. Linguistics - by S.A. Wurm, professorial fellow in linguistics, the Australian National University

In the last few years, tremendous progress has been taking place in New Guinea linguistics. The discovery, identification and classification of languages has been continuing at an ever increasing rate, and most of Australian New Guinea and the majority of West Irian can now be regarded as linguistically known, at least superficially.

In addition to establishing the existence and classificatory status of more and more languages in the New Guinea area, linguists have been successful in combining an ever increasing number of languages into families, and families into groups of a higher order. A high percentage of the known languages of the New Guinea area could be included in a comparatively small number of linguistic phyla, and at least five of these which are at the same time the largest ones both geographically and from the point of view of the number of their speakers, could tentatively be combined into a macro-phylum occupying close to three-quarters of the entire New Guinea area. The macro-phylum also comprises two families which at this stage are regarded as isolates. A number of other phyla and family isolates may also link with the macro-phylum, but this requires further study. At the same time, it appears very likely that it will be possible to combine two or more of the present member phyla of the macro-phylum into a single phylum.

The only areas which remain linguistically unknown in Australian New Guinea are the following: a portion of the hinterland and inland section of the Gulf District, a few small regions in the Western District, especially on the Upper Bamu and the Middle Fly Rivers, parts of the country between the May and Leonard Schultze Rivers in the West Sepik District, a coastal and hinterland area in the extreme east of that District, a region on the middle Yuat in the East Sepik District, parts of the country near the Upper Ramu in the Madang District, and portions of that lying between the Upper Ramu and the coast in the same District. In addition, the linguistic situation seems to be somewhat confused and classificatorily unclear in parts of the western half of the hinterland of the West Sepik District, and in the Cape Vogel area and its hinterland in the northern part of the mainland portion of the Milne Bay District.

Work directed towards the elimination of the linguistic blanks in Australian New Guinea is already in hand, or is planned for the near future. K. Franklin, of the Australian National University, plans to survey the unknown parts of the Gulf District by helicopter in co-operation with the Summer Institute of Linguistics early in 1969. C. Voorhoeve, of the Australian National University, intends to work in co-operation with K. Franklin in 1969, and also to study the unknown areas in the Western District. D. Laycock, of the Australian National University, plans to survey the unknown and doubtful parts of the East and West Sepik Districts in 1969-70, and work in progress by J. Z'graggen, of the Australian National University, is expected to throw light upon the linguistic situation in some of the unknown parts of the Madang District. T. Dutton, of the Australian National University, has made plans to work on the clarification of the linguistic situation in the Milne Bay District in 1969.

West Irian contains the largest linguistically unknown portion of the New Guinea area: almost nothing is known of the languages and the linguistic situation in much of the country between the north coast which runs north-east and east from the southern end of Geelvink Bay, the Australian New Guinea border in the east, and the highland areas in the south. Only the north-eastern coastal and hinterland areas are linguistically known to some extent, and some information has been collected on a few isolated languages in the Mamberamo River area and on one language located in the hinterland of the east coast of Geelvink Bay. Information is also available on the Austronesian language of the east coast of that Bay.

At the same time, our knowledge of the languages of the VogelKop and Bomberai Peninsulas, especially with regard to their language structure, is extremely limited and fragmentary.

The same statement applies to the very superficially known languages of the Tor River area in the central northern coastal and hinterland area, and to the coastal and hinterland languages close to the Australian New Guinea border.

The unknown, or very little known, languages and the linguistic situation in the northern part of West Irian constitute the greatest challenge in New Guinea linguistics, and there is
a very pressing and urgent need for large-scale linguistic work in that area. The present
writer is not aware of any plans for such work in the foreseeable future.

Apart from the need for the elimination of this large blank on the linguistic map of the
New Guinea area, for which no plans seem to be in hand, an enormous amount of detailed
linguistic work and depth study is called for in New Guinea linguistics. In many instances,
only vocabulary materials have been collected in languages which have been tentatively
classified on the basis of this lexical evidence alone. Only very fragmentary information
on language structure is available in numerous other cases. More detailed study is neces-
sary in all these cases. The most important areas for such studies are the following,
apart from the parts of West Irian which were mentioned in the paragraph before the last:

1. The languages of the Goliath Family situated between the Baliem River area and
   Mt Goliath in West Irian.

2. Many languages of the West Sepik District, especially those in its north-western part,
   and most of those in its southern centre, in particular the languages included in the North
   Papuan, Kwomtari and Busa Phyla, the Senagi, Left May, Leonard Schultze and Sepik Hill
   families, and the language isolates located in the north-western corner of the District,
   and those between the May and Leonard Schultze Rivers. Work in some of these languages is
   now in progress by members of the Summer Institute of Linguistics.

3. Languages of the southern and eastern portions of the East Sepik District, especially
   those included in the Sepik Hill family and the Nor Pondo and Buna Groups, and the isolates
   in the east and south-east. Several of these are, or have been, under study by members
   of the Summer Institute of Linguistics, and by missionaries.

4. A number of the languages of the Madang District, especially many of those located in
   the southern and south-eastern parts. Some of these are now being studied by members of
   the Summer Institute of Linguistics.

5. A few of the languages in the extreme east of the Northern and Central Districts like
   Onjob, Totore and Lauwa, and several of the languages in the north-western portion of the
   mainland part of the Milne Bay District, like Gwoira and Umana-Kaina, as well as Yele on
   Russell Island. T. Dutton of the Australian National University plans to undertake a study
   of some of these.

6. The Kwale language in the Central District.

7. Several of the isolates in the Gulf District, like Tate, Poromi, Mai-hea-ri and Ipiikai,
   as well as the newly discovered southern members of the Mikaru family of the East New
   Guinea Highlands Phylum, the members of the Bamu and Turama Rivers Family, and those of
   the Kikori River Family of the Central and South New Guinea Phylum. K. Franklin and
   C. Voorhoeve, of the Australian National University, intend to study some of these
   languages.

8. The members of the Tirio Family of the Central and South New Guinea Stock in the Western
   District, and those of the Morehead River Family of the Central and South New Guinea Phylum.
   C. Voorhoeve and the present writer, both of the Australian National University, plan to
   undertake the study of some of these languages. Kol, Wasi and Anem in New Britain and
   Panaras in New Ireland.

9. Many of the numerous Austronesian languages scattered along coastal areas of the main-
   land of New Guinea, and through the islands. Only a few of these have been studied in detail.

In addition to the languages listed, most other languages of the New Guinea area require
thorough study. Less than 150 of the 600-700 languages of the area have been studied, or
are being studied in any appreciable detail, and even in many of these cases additional
work along modern lines is needed. Thorough comparative work in New Guinea languages has
only just begun, and there is an unending field for descriptive, comparative, historical,
lexicographic, sociolinguistic and ethnolinguistic work in the New Guinea area which makes
this area the greatest linguists' paradise in the world. At the same time, the results
arrived at by linguists are, in this part of the world, of particular importance for inter-
disciplinary approaches involving the efforts of prehistorians, anthropologists, geographers,
ethno-botanists and members of other disciplines.
10. **Irian Barat** - by R.G. Crocombe, executive officer, New Guinea Research Unit

Social science research in Irian Barat (West New Guinea) has been undertaken in recent years mainly by the small group of geographers, anthropologists and economists at the Tjenderawasih University in Djayapura (previously known as Sukarnapura and Sentani). As they have heavy teaching responsibilities and extremely limited research funds, the volume of data produced has been small, though some that has been produced has been evaluated favourably by those who can read it (it is produced in Bahasa Indonesia). Some of it, unfortunately, is military propaganda ('our soldiers rectifying centuries of colonial injustice...', etc.).

Owing to political and administrative difficulties, few outsiders have been granted entry permits for research on Irian Barat, but it is expected that permits will be granted more readily in future. Entry may be gained by air (Garuda Airline) from Djakarta to Biak (Schouten Islands) about once every week or two, thence connecting with Merpati Airline to Djayapura or Sorong and thence intermittently to various internal airports. Internal flights are not regularly scheduled. A small Christian mission air service will sometimes take a passenger who has no other alternative. The other point of entry is from Papua-New Guinea by Trans Australia Airlines flight once each two weeks from Port Moresby and Wewak to Djayapura. No regular passenger ships serve Irian Barat. Internal coastal and river shipping is not regular.

In addition to a visa for Indonesia, one needs a special permit (obtainable in Djakarta or through an embassy) to enter Irian Barat. This may take some time to acquire.

Imported goods are not readily obtainable. Even in Djayapura stocks are very limited and prices high. A researcher would be wise to arrive with all his own supplies. Local food can usually be purchased, though sellers prefer barter to money in many places owing to inflation and difficulty of buying.

It may be that researchers would be more welcome, and would make a greater contribution, if they offered to associate themselves with the Tjenderawasih University in Djayapura or one of its branches, and to give some lectures there, before or during their fieldwork. The staff of the university is isolated and seems to appreciate contact with overseas academic colleagues. The provision of a small service of this kind could also facilitate the issue of an entry permit. Both the academics and officials would be particularly appreciative of copies of publications, especially those relating to this province.

Although some officials speak English, a knowledge of Bahasa Indonesia would be highly desirable. Not only is it spoken by all Indonesians, but by a high proportion of the indigenous people. The adult education program concentrates mainly on the teaching of Bahasa.

Some parts of Irian Barat province are closed to outsiders because of political unrest. Areas accessible or non-accessible vary owing to administrative circumstances and could not always be known in advance. The Arfak plains area of northern Vogelkop, Fakfak Peninsula, Bokondini area in the highlands, and several others have been inaccessible to non-military personnel much of the time. A specific permit is needed to travel to many places inside Irian Barat.

This note has concentrated on logistic problems because they are considerable and persons contemplating research there will need to be prepared to adjust to them. There is an endless variety of topics suitable for research, particularly in geography, anthropology and linguistics, and also in specific aspects of psychology, economics and political science. Interested researchers should also refer to the **Bulletin for Urgent Anthropological Research in New Guinea**. Studies dependent on statistics or government files, however, would be hampered not only by problems of access to the documents, but by the limited amount and varied quality of the documentation. The government may also be reluctant to issue entry permits to persons whose studies concentrated on topics about which government is at present sensitive.
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