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THE DEVELOPMENT OF COMMERCIAL  
AGRICULTURE ON MANGAIA : SOCIAL  
AND ECONOMIC CHANGE IN A  
POLYNESIAN COMMUNITY

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A Thesis Presented in Partial Fulfilment of the  
Requirements for the Degree of Master of Arts in Geography  
at Massey University

By

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1969

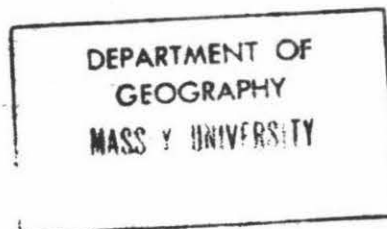
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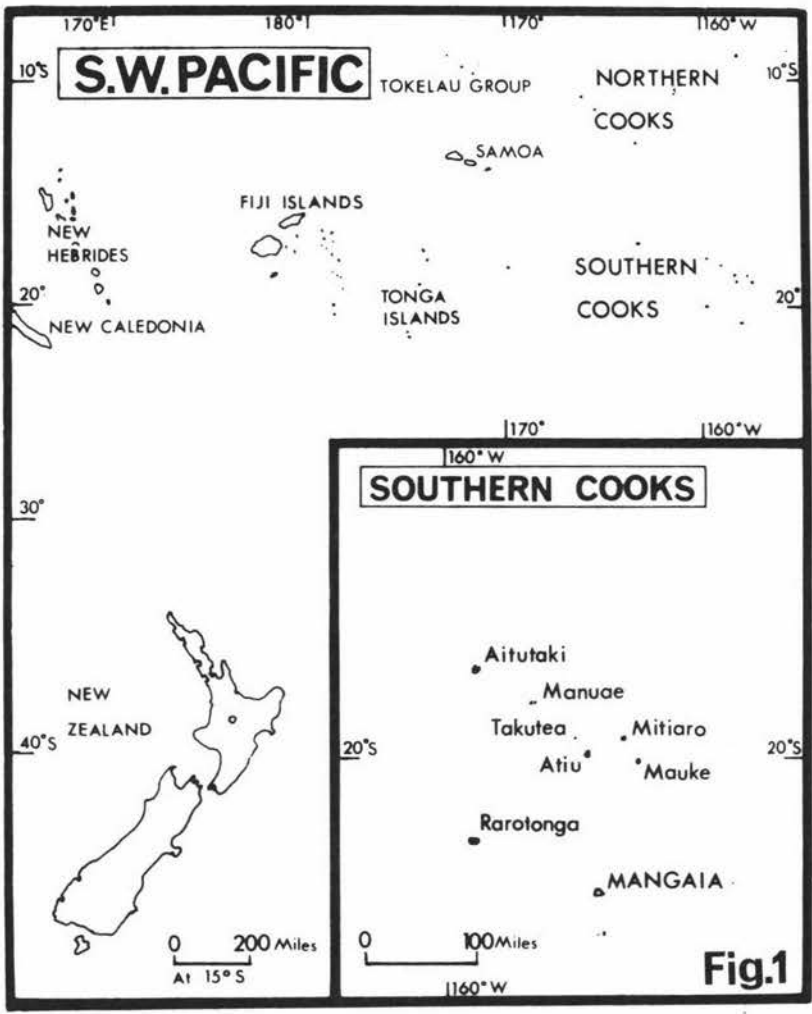


FOREWORD

Since 1964 some members of staff of the Department of Geography and some masterate students have undertaken research in the Cook Islands. To date a number of academic papers have been published on the research, while within the near future a series of land use maps of the larger islands will become available. In addition, though, and as part of the policy of making available to those interested aspects of the research undertaken it is proposed to issue limited numbers of some of the theses completed. This thesis, by Mr. B. J. Allen, is the first of this nature.

B. G. R. SAUNDERS  
Reader in Geography





**Fig.1**

## PREFACE

The problems confronting the so called 'underdeveloped nations' of the world are pressing more urgently upon mankind every year. In response there is a rapidly expanding body of knowledge associated with the technical, social and economic changes which must be brought about within such countries if progress is to be assured. Because so much of the change must occur at a village level, studies of small groups have become increasingly important. This thesis is the result of such a study based on the island of Mangaia, a small and isolated Polynesian community in the Cook Islands. The aim of the study was to trace the development of commercialisation of the agricultural system from European contact to the present day, to relate the major changes to their causative factors and to assess the present degree of commercialisation and the prospects for the future.

The research thus fell into two parts, historical and contemporary. The historical data was derived from three main sources, missionary reports and letters, administration records and New Zealand Government records, with a valuable ethnological study by Hiroa providing the basis of the pre-historical material. Contemporary data was collected firstly by the administration of a questionnaire to a sample population. The instrument included a battery of schedules dealing with details of the household, the head of the household, and the agricultural plantations maintained by the household. Secondly, a land use survey was carried out which concentrated upon a classification of land into that used for food crops, commercial crops and fallow land. (see Appendix I).

The original idea behind this study was suggested to me by Professor K. W. Thomson, Massey University and he provided continual advice and encouragement throughout the study. The fieldwork was carried out between April and September 1967, when I travelled to Mangaia, accompanied by my wife and child, with financial assistance from the Cook Islands' Research Fund established at Massey University. While on Mangaia further financial assistance was received from the Cook Islands' Government which also made available a house, free of rent. Without this assistance the study could not have been attempted and I express my gratitude to these two organisations.

I would also express my gratitude to Mr. I. G. Bassett, now of the Teachers' College, Palmerston North, who supervised the study, and who has given so readily of his time and thoughts, and to Mr. B. G. R. Saunders, Senior Lecturer in Geography, Massey University, who read the final drafts and provided constructive criticism on content, layout and reproduction.

At this point I would take the opportunity to acknowledge assistance from the following people and express my gratitude:-  
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GLOSSARY OF MANGAIAN TERMS

akeke mato	a black soil lying beneath the inland limestone cliff.
ana	a cave.
ara	trad. <u>Pandanus tectoris</u> , screwpine. Now also generally applied to pineapple, <u>ananus comosus</u> .
arapateka	lit. smooth pineapple, Smooth Cayenne variety.
arataratara	lit. rough pineapple, Ripley Queen variety.
'are	house (vare).
ariki	highest ranking ascribed title.
ariki i teua te tapora kai	a traditional title lit. translating as ruler-of-food.
ariki pa tai	traditional title; seaward high priest.
ariki pa uta	traditional title; inland high priest.
Aronga Mana	lit. men of power, traditional ascribed elite group comprising ariki, kavana and ui rangatira.
atinga	a tribute, usually food or labour, paid to tribal elite.
au	lit. bush. Specific. <u>Hibiscus tiliaceous</u> .
auakai	food gardens
auangaugaere	abandoned gardens. lit. garden of weeds and rubbish.
auatakere	abandoned gardens.
auatoka	garden plots surrounded by stone walls.
aua vaere ou ia	a cleared, but unplanted garden plot.
'ei	a wreath of flowers worn about the neck (lei). If worn about the head is termed <u>'ei katu</u> .
Ecelasia	Cook Islands' Congregational Church membership.

karakia	chants.
kavana	lit. governor. Elite title of district chief, traditionally that of pava.
kikau	the frond of the coconut palm.
kiriau	rope made from the twisted bark of the Hibiscus, <u>au</u> .
ko	a digging implement.
koka	<u>Musa sp.</u> , banana.
ku'ara	<u>Ipomoea batatas</u> , kumara or sweet potato.
kuava	<u>Psidium guayava</u> , a common shrub.
kura	<u>Artocarpus incisa</u> , breadfruit.
makatea	lit. white rocks. Refers to limestone rocks of the raised coral reefs. Common term in Eastern Polynesia.
mamio	var. <u>Colocasia sp.</u> Small round corm grown under water.
mangaia	trad. highest ranking ascribed title, or 'Temporal Lord'. Now replaced by ariki.
maniota	<u>Manihot utilissima</u> , arrowroot.
mapu	unmarried youth, usually male.
matavai	man-made irrigation channel.
matepi	a large knife.
maunga	lit. mountain, centre of the island.
meika	<u>Musa sp.</u> , banana.
miko	planting material of <u>Colocasia sp.</u>
moa kirikiri	<u>Pteropus sp.</u> flying fox or fruit bat.
motu	small island.
nu	<u>Cocos nuciferus</u> , coconut palm.
pa'i	var. <u>Colocasia sp.</u> Large corm grown in raised, irrigated beds.

papa'a	lit. stranger, spec. European.
pa tai	coastal zone, between the reef and the makatea cliff.
pau	wooden, torpedo shaped traditional tool used in planting pa'i.
pava	lit. war lord, now redundant traditional title, replaced by kavana title.
pia	<u>Tacca pinifidia</u> , a native arrowroot.
piriaki	name of an ecological zone; narrow zone beneath the inland makatea cliff.
poke	glutinous pudding made from arrowroot, mixed with taro, banana and other vegetables and fruits and baked in an oven.
puaka	pig or pork; puaka Maori, the indigenous pig.
puarenga	<u>Tithonia diversifolia</u> , 'yellow flower', a tall weed.
puna	taro swamp. Tradit. a district.
puta ko'atu	lit. holes in the rocks; small areas of soil on the surface of the makatea belt.
raei	lit. wilderness; specifically, areas of extremely intricately eroded makatea, which form limestone 'deserts' in restricted areas.
rangatira	elite title associated with the tapere.
rau	thatching formed from pandanus leaves.
rautuanu'e	name of an ecological zone; the lower slopes of the central volcanic cone, the fernland, named after anu'e or Staghorn fern.
rautuitui	name of an ecological zone; the surface of the makatea formation, named after the tuitui, or candlenut.
repo taro	Tamarua Clay Loam; also vari.
roroka	the reef.

taiki	a digging implement, a spade.
tamanu	<u>Calophyllum sp.</u> , a forest tree.
tama anga	weeding gardens.
tamu anga	the act of planting
tapere	a subdistrict.
taro	general name for plants of the <u>Colocasia</u> , <u>Xanthosoma</u> , <u>Alocasia</u> species.
tarua	<u>Xanthosoma sp.</u> , non irrigated on <u>Mangaia</u> .
ta'u anga teita	burning, when clearing plantation areas.
tere	to go away; a tere party travels from a home village or island to another area for same purpose, sport, religious, social, etc.
toa	<u>Casuarina equisetifolia</u> , ironwood.
toki	stone cutting tools, general term.
tui tui	<u>Aleurites moluccana</u> , candlenut.
u'i	<u>Dioscorea sp.</u> , yam.
ui rangatira	the rangatira as a group.
umu	traditional oven.
utu	<u>Barringtonia butonica</u> , a large coastal tree.
vaere anga	cutting, when clearing plantations.
vari	alluvial soil in taro swamps, same as repo taro.

'Papa paka a inu i te vai o Marua,  
Tukua kia 'aere.'

(A baked taro and a drink of the water of Marua,  
And freedom to depart).

\_\_\_\_ A Manganian saying, symbolising hospitality, food, water and  
freedom. (Hiroa, 1934, 138).

'Ever since our arrival here we have done all we could to induce them to improve their dwelling houses and the localities of their respective settlements. In some measure we have been successful and much good has resulted. From time to time we have urged the advantages of labour and industry by which they may be able to procure many additions to their personal and social comfort, but they are slow to improve in these respects. Their general habits and social life are too fixed to be suddenly altered or eradicated.'

\_\_\_\_ G. Gill to the London Missionary Society, December 19, 1854.

'I would like you to give me full particulars as to who constitute the Ariki's Court, and what are its functions, as I think it would be advantageous to gradually bring our own system of administering justice into the Islands.'

\_\_\_\_ C. H. Mills, Minister to the Islands, to Col. W. E. Gudgeon, Resident Commissioner, Rarotonga, 1904. (AJHR A3, 1904, 46).

'The people in most of the Cook Islands are in transition towards peasant societies in which production for subsistence is combined with production of cash crops for a distant export market.... Largely as a result of commercial impacts, the old value systems are still in a process of dissolution, but the adjustments to the new order are as yet insufficient for social integration.'

\_\_\_\_ Belshaw and Stace, 1955, 13.

'The most important problem facing humanity today is lack of understanding - lack of understanding of the cultures and values of other peoples; lack of understanding of the joys and sorrows of their daily lives, of their social and economic problems and of how they are trying to solve them; lack of understanding of the fears and hopes of others;'

\_\_\_\_ Buchanan in 'Out of Asia', 1968, 15.



LOCATIONS

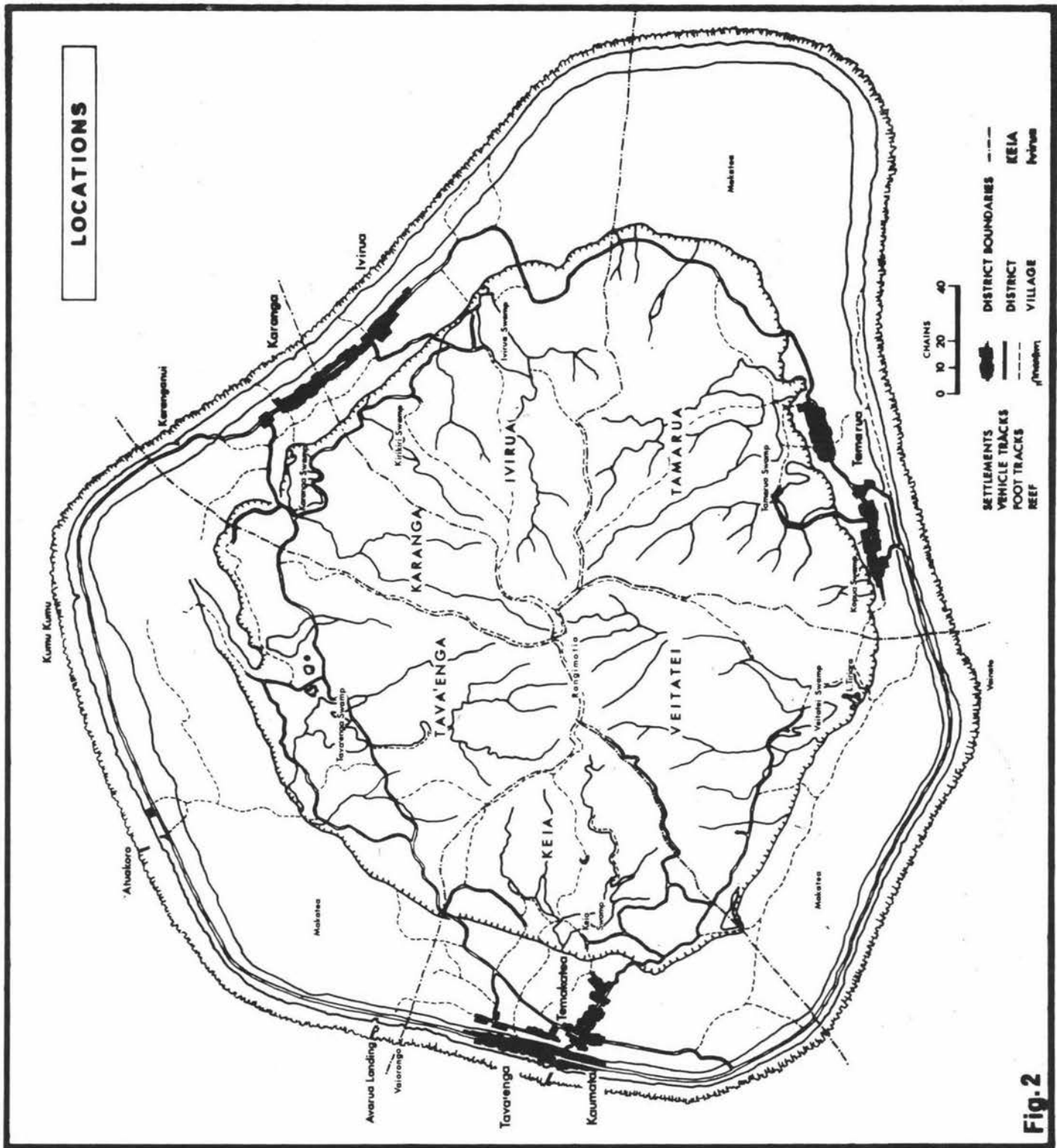


Fig. 2

TABLE I

THE COOK ISLANDS: AREA AND POPULATION, 1966

<u>Island</u>	<u>Area (Acres)</u>	<u>Population</u>	<u>%</u>
<u>Southern Group</u>			
Rarotonga	16,602	9,895	51.4
Mangaia	12,828	1,994	10.4
Atiu	6,654	1,327	6.9
Mitiaro	5,500	293	1.5
Mauke	4,552	670	3.5
Aitutaki	4,461	2,617	13.6
Manuae	1,524	15	0.1
Takutea	302	-	-
	52,423	16,811	87.4
<u>Northern Group</u>			
Penrhyn	2,432	591	3.1
Manihiki	1,344	584	3.0
Pukapuka	1,250	851*	4.4
Rakahanga	1,000	321	1.7
Palmerston	500	85	0.4
Nassau	300	-	-
Suawarrow	100	1	-
	6,926	2,433	12.6
	59,349	19,244	100.0

Notes: Population figures provisional.

\* Includes population of Nassau.

Source: Annual Report on Cook, Niue and Tokelau Islands, 1961.  
Justice Department Files, Rarotonga.

## INTRODUCTION

Prior to 1965, the Cook Islands comprised a Confederacy of 15 islands in the central South Pacific, dependent upon New Zealand for political and economic administration. In 1965, following United Nations pressure and agitation from local groups, New Zealand granted the Cook Islands 'internal self-government'. A free election was held on party lines and a government was formed under the leadership of Mr. Albert Henry, an Aitutakian born political leader and school teacher who had been dominant in Cook Islands' political movements both in New Zealand and in the islands. This government owes allegiance to the Queen, through the New Zealand High Commissioner who is resident on Rarotonga, the largest and most populous island, and the seat of government. Internal policy now rests in the hands of this government and its Cabinet of Ministers. New Zealand continues to provide financial assistance in the form of subsidies, services and seconded personnel.

Following their election, the governing Cook Islands' Party have followed an economic policy which has as its major objective, the attainment of financial autonomy. The government believes that true internal independence cannot be achieved while the islands are dependent upon New Zealand finances, despite the unconditional nature of the aid. (1) The decision to follow such a policy has placed the Cook Islands in a position in common with an increasing number of nations, which are presently attempting rapid modernisation in the absence of the wealth and integrated economies of the developed nations. The Cook Islands, as well as exhibiting most of the symptoms of 'underdevelopment' (2) are faced with the problems of isolation, fragmentation, a lack of physical or economic resources, a top heavy 'colonial'-type administration and a serious loss of population from the working age sectors, owing to emigration to New Zealand. (Cook Islanders are New Zealand citizens and have the right of free entry to New Zealand, subject to some health restrictions).

The Islands form two groups between latitudes 8°S and 22°S, and longitudes 156°W and 166°W. (see Figure 1). The Northern Cook Islands comprise seven coral atolls with typical atoll structures of small motus and expansive lagoons. The southern islands include one high volcanic island, Rarotonga, six raised volcanic islands, Aitutaki, Atiu, Mangaia, Mauke, Mitiaro and Takutea and one atoll, Manuae. The northern islands are 600 to 700 miles north of the southern islands, which are scattered in a semi-circle within 150 miles from Rarotonga. (see Table 1). The islanders are Polynesians, descendant from an Eastern Polynesian cultural group with its most likely major source to the east in the Society Islands. The Cook Islands' populations although conforming to a broad and distinctive cultural pattern, exhibit variations from island to island, and each island society has reacted in a slightly

different manner to the changes imposed or resultant upon European contact.

European contacts have followed the general pattern established in Polynesia, of explorer, missionary, trader and colonial administrator. Captain James Cook was the first recorded European to sight the islands of the present group between 1773 and 1779. He was followed between 1820 and 1830 by missionaries of the London Missionary Society. In 1888 the southern islands were declared a British Protectorate and in 1901 they were annexed by New Zealand, which administered the group up to 1965.

The aim of this study is to trace the commercialisation of the agricultural system of the second largest and southernmost island in the group, Mangaia. (see Figure 2). It is believed this will serve the following major purposes. Firstly, this will provide factual material on the form the development of commercialisation has taken within this community. If past reactions to changes introduced to the island are isolated, some indication may be able to be given on future reactions and hence future policy toward economic development on the island. Comparisons between the Mangaian example and other contemporary communities may also provide similar information. Secondly, when the Mangaian example is placed within its theoretical background, some small additions to the growing body of knowledge on the problems of commercialisation and modernisation of traditional and semi-traditional societies may be possible.

In order to achieve this objective the following approach has been followed. The paper is divided into two parts; in the first are three chapters dealing with the contemporary island setting, the physical environment, land use patterns, population structure, social structure and land tenure and traditional methods of agriculture. The second part is comprised of a chapter tracing the development of commercial agriculture and a chapter which attempts an assessment of the degree of commercialisation in 1967.

#### REFERENCES

- (1) 'Speech from the Throne' 26 July, 1966 in the Proceedings of the Legislative Assembly, 1966.
- (2) Johnston, K. W., 1967.