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Monograph no.7

Bougainville in transition

T.K.Moulik

Pacific & Northeast Asian History



Bougainville in transition

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T.K.Moulik

Series editor E.K. Fisk

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Canberra 1977**

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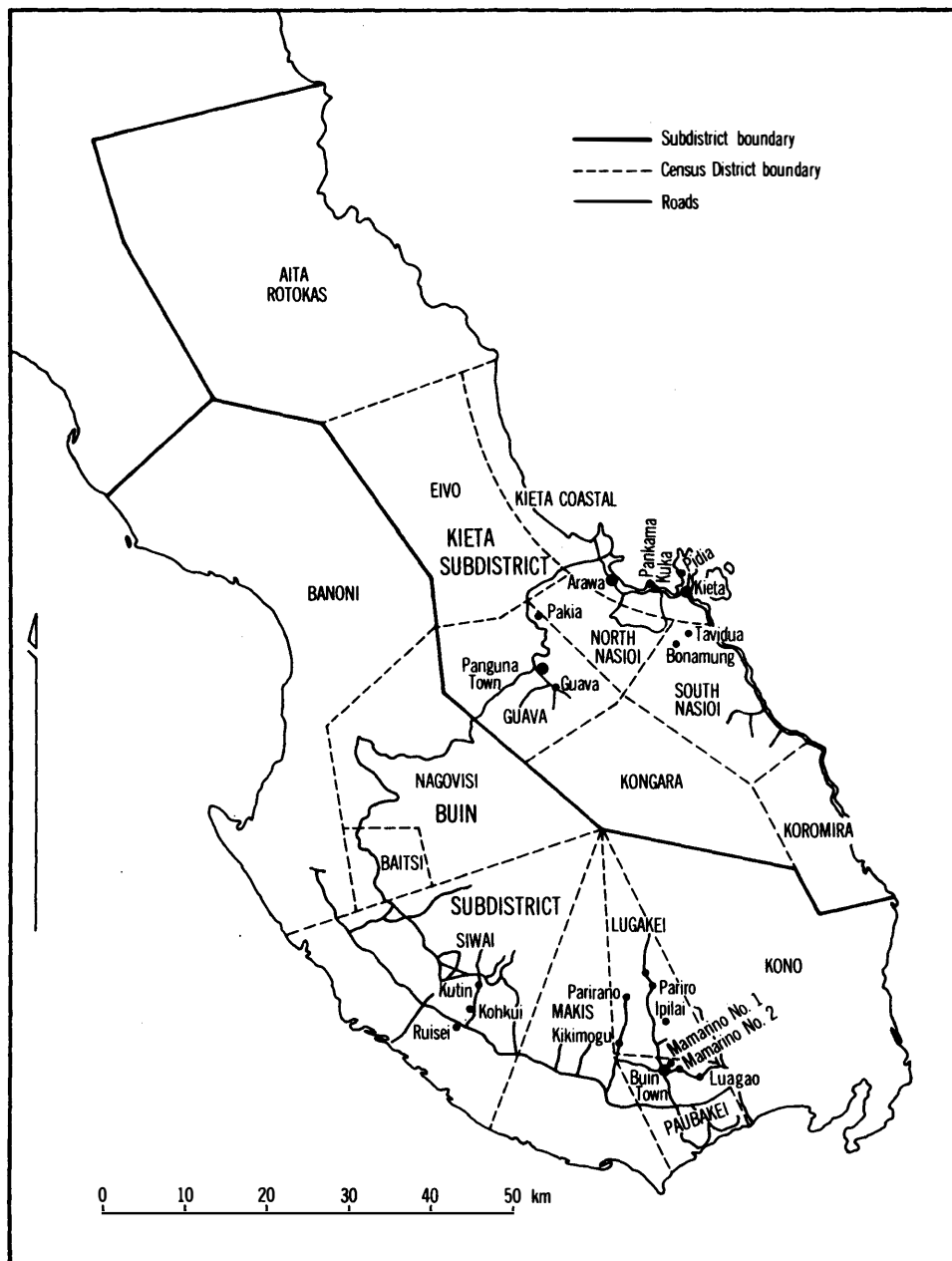
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Frontispiece: Map of Southern Bougainville

Summary

The establishment of the giant Bougainville Copper Mine has brought the Bougainville villagers face to face with all kinds of social, economic, psychological and political problems which demand solutions and adjustments within an extremely short time.

This study attempts to describe and analyse the response of the largely subsistence-based Bougainvilleans towards their changed environment, particularly in relation to wage-earning opportunities. It was carried out in Kieta and Buin, where the comparison of motivation in the two economic situations proved particularly interesting.

One conclusion drawn from the study is that the Bougainville people have great resilience and adaptability, and that these characteristics are helping to bring about a fairly smooth transition from one kind of economy to another.

Acknowledgements

When I arrived in Bougainville in September 1973, a political turmoil had just subsided with the granting of District Government to Bougainville. It was in a period of political transition and experimentation that the fieldwork for this study was completed. Unfortunately the fieldwork had to be cut short abruptly after a year when I left Bougainville to join the Indian Institute of Management, Ahmedabad, India, in November 1974.

Before I left Bougainville I could analyse only a part of my data and make very tentative observations (see *Motivational Factors Affecting Bougainville Villagers' Money Earning Activity*, Occasional Paper No.1, Development Studies Centre, Australian National University, 1975). I took all the raw data with me to India in the fond hope that I would complete the final report in six months, but for various reasons, completion of the report was inordinately delayed.

My gratitude to the Council for Pacific Development Studies for offering me the fellowship for this study and for tolerating patiently the sudden changes in my program and the delay in completion of the report cannot be overstated. My debt to Mr E.K. Fisk of the Council for constant support and encouragement all along is very great. It was Mr Fisk's encouragement and interest in this study which sustained my efforts in completing the report.

I have benefited greatly through informal discussions with a number of well-known scholars. I want especially to thank Professor D. Oliver, Professor R.G. Ward, Dr M.W. Ward, Dr A. Mamak, Dr R. Bedford, and Professor W.C. Clarke.

I was extremely fortunate to have as my friends two important Bougainvillian leaders, Mr Leo Hannett and Mr Moses Havini. Their assistance and co-operation not only helped me to build rapport with villagers in the prevailing political climate, but also made my family's stay in Bougainville socially rewarding and enjoyable.

I was deeply touched by the friendliness and co-operation of a large number of Bougainvillian men and women. Many of them became our family friends and continue to keep contact through occasional letters. This was the best reward we could ever expect.

Given such excellent co-operation and assistance on all sides, I alone am to blame for any shortcomings in the following pages.

T.K.M.

Ahmedabad
1976

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E.K. Fisk
Executive Officer
C.P.D.S.

Canberra
April 1977

Contents

	Page
Acknowledgments	
Chapter 1 Introduction	1
Chapter 2 Economic life in the villages	26
Chapter 3 Young Bougainvillians: potential entrants to the labour market	70
Chapter 4 Adult villagers: the home environment	118
Chapter 5 Conclusion	185
Bibliography	194

Tables

1.1	Comparative statistics of Kieta and Buin subdistricts	7
1.2	Urban populations: 1966, 1971 and 1973	8
1.3	Cocoa and coconut plantings in Kieta and Buin subdistricts, 1968-70	11
1.4	Bougainvillians employed by BCP, April 1973	12
1.5	Sale of cocoa at the Kieta port of inspection, 1970-74	14
1.6	Sale of copra at the Kieta port of inspection, 1970-74	15
1.7	Development Bank loans advanced to indigenous people of Kieta and Buin subdistricts, 24 August 1970 to 25 March 1974	17
1.8	Population details of villages selected in Buin subdistrict	19

	Page
1.9 Population details of villages selected in Kieta subdistrict	20
2.1 Subsistence land ownership, labour in subsistence activities and cash income from sale of subsistence produce	30
2.2 Participation of Bougainville villagers in subsistence produce market	33
2.3 Cash crop census for sample households	37
2.4 Annual rate of new plantings of cash crops 1970-71	38
2.5 Labour expended per adult man on cash cropping, and household income from sale of cash crops	43
2.6 Past wage employment experiences of sample respondents	48
2.7 Wage employment and cash income of the sample households	50
2.8 Cattle population in the subdistricts in 1971-72	54
2.9 Trade stores, population and monthly sale in the study villages, 1974	56
2.10 Monthly cash income of sample households	61
2.11 Cash income and expenditure per month	63
2.12 Cash income and expenditure per consumption unit	64
3.1 Sex and level of formal education of sample students	72
3.2 Main occupation of fathers of the sample students	73
3.3 Occupational prestige rankings by Bougainville students	76
3.4 Career aspirations of the Bougainvillian students	85
3.5 Reality estimate of the students as measured by the distance of the ranks between their average preference and expected occupational levels	89

	Page
3.6 Income aspirations of the Bougainvillian students according to future career aspirations	90
3.7 Ranking of motivational factors influencing future career plans of the Bougainvillian students	92
3.8 Students' preferences for town or village living	97
3.9 Students' attitudes towards non-Bougainvillians	104
3.10 Motivation patterns of Bougainville students	109
3.11 Expected levels of occupation by levels of n Achievement	113
3.12 Mean n Achievement scores by groups of respondents	114
4.1 Motivation patterns of adult Bougainville villagers	140
4.2 Respondents' levels of motivation	143
4.3 Typology of motivational profile	144
4.4 Class consciousness by groups of respondents	159
4.5 Percentage distribution of respondents according to levels in different areas of aspiration	162
4.6 Preferred use of \$500 expressed by adult respondents	167
4.7 Preferred use of \$50 expressed by adult respondents	167
4.8 Evaluation of the future differing from assessment of the past	171
4.9 Preparedness for change in relation to difference in outlook	173
4.10 Attitudes regarding commitment to wage employment	179
4.11 Respondents classified according to levels of prejudice	181

	Page
Appendices	
2.1 Market surveys	65
2.2 Individual transactions of sale of copra and cocoa at the Kieta port of inspection, by different categories of sellers, 1970-71 to 1973-74	66
2.3 Household possessions of selected farmers	67
3.1 Reasons for preferring town living	116
3.2 Reasons for preferring village living	117
4.1 Percentage distribution of adult male villagers according to levels of aspiration in relation to different goals	183
Frontispiece: Map of Southern Bougainville	ii

Chapter 1

Introduction

In April 1972 the giant \$A400 million Bougainville Copper Mine commenced production, exploiting one of the world's largest porphyry copper ore bodies. Both in its scale of operations and in its technology, Bougainville Copper Mine is a unique experience for Papua New Guinea and especially for the Bougainville villagers. Obviously Papua New Guinea had no previous contact or intimate experience with the world of industry that such a mammoth mining project represents. Big mines tend to be located in a hitherto relatively isolated and neglected hinterland, with the result that their socio-economic impact on the surrounding areas is traumatic. The accelerative thrust of the sophisticated mining operations of Bougainville Copper Mine owned by a foreign company in the midst of their own land, brought the subsistence-based Bougainville villagers face to face with all kinds of social, economic, psychological and political problems of change demanding non-postponable solutions in an extremely compressed time horizon.

A Chinese proverb says, 'Whatever is first born is always ugly in appearance', and certainly the early experience of development at Bougainville Mine was not a pleasure to behold. It invoked and continues to invoke (perhaps to a lesser extent) a profusion of criticisms from within and without. It would seem, however, that this 'first-born' infant, in the short space of about six years, has now emerged from its ugliness and begun to shed its rustic vestiges revealing its unlimited potential for the future. For the Bougainville villagers, on the other hand, the antecedent cultural and social traditions have been put to the test in the face of adversity and disintegration.

It is true that the mining company did not discover the island of Bougainville (Momis and Ogan, 1972:106). But it is true that the Bougainvillians discovered themselves anew as a result of the mining company's development of one of

the world's largest copper mines in the Panguna Ridge areas of Bougainville. This intrusion has accelerated the overall process of change and disturbed the existing social order and culture. As the general manager of the Commonwealth Trading Bank of Australia has written:

Two centuries ago, Louis Antoine de Bougainville, the French lawyer, soldier and sailor, circum-navigated the world. Although he has long been forgotten except by historians, his distinguished name lives again today in another international venture - Bougainville Copper. This is a new star in the Pacific, a revolutionary development that will drastically change the history, economy and life of an island, a region and a territory (quoted in Wilshire, 1973:62).

How right Mr Butcher was! It was not only the unimagined wealth being released that brought about profound changes in the Bougainville villagers' traditional ways of life. The most apparent changes were the increase in individual cash incomes and employment opportunities in the wage-employment sector as a result of direct company employment or of the industry's various 'multiplier effects' - the construction of new roads, towns, hospitals, schools and other social overheads and increased external communications - and the acquisition of new skills. To these might be added the intangible but crucial change that comes about when a group of people living so far largely on a stagnant subsistence basis in a horticultural society with supplementary cash production are ushered into a dynamic modern exchange economy based on a paid employment sector. This is precisely the revolutionary aspect of the change that not only gives rise to problems of technical adjustment but calls for a new balance in motivations and necessitates a very real 'conversion' in the individual. This is not to suggest that the Bougainville Copper Mine started these revolutionary social changes and adjustments; they have been going on, very gradually, since the Bougainville villagers first came in contact with the European traders and missionaries, and were stimulated by the dramatic experience of World War II and the administration and development by a 'relatively benevolent form of colonialism'. What the copper mine did, however, was to bring the problems of adjustment into sharper focus.

This report is the description and analysis of Bougainville villagers' response to a new 'economic environment', largely

created by the Bougainville Copper Mining project. How do they perceive the new environment? Do the Bougainville villagers perceive or fail to perceive the change and comprehend it fully? How do they define it? What do they expect to achieve from it? Are there limitations and constraints that stand in the way of their fullest participation in the cash economy? In other words, this is a socio-psychological inquiry about the adaptation of the Bougainville villagers to cash economy, individual work, and the wider complexities that monetary exchange economy through industrialization demands. This is a study of the problem of fitting a subsistence-based traditional Bougainville villager into a new economic environment of monetary exchange economy. The problem shows the close interdependence of two main key concepts, that of motivation and that of cultural pattern.

The purpose of this investigation, therefore, is to help us understand what happens to a people when they are overwhelmed by change. It is about the ways in which the Bougainvillians tend to adapt - or fail to adapt - to the hitherto relatively unknown culture of exchange economy. It is a change that has affected Bougainville people when most of them are unprepared to cope with it. With the discovery and operation of the mine, the familiar psychological cues that help an individual Bougainvillian to function in society were suddenly replaced by ones that are strange or incomprehensible. The net result is a 'culture shock', to use the popular vocabulary. To understand this, we must look at what is happening to the minds of the Bougainvillians in responding to new politico-economic realities.

What is the adaptive response of the Bougainvillians to the revolutionary stimuli of change? How resilient is the traditional culture of Bougainville to cope with such change? Each adaptive response exacts a price until perceptible breakdown in the structure results. It is in this context that the antecedent cultural patterns of Bougainville and its people's emerging attitudinal and motivation pattern assume critical importance.

There is already a growing body of knowledge and research on the process of industrialization as a larger process of 'economic development' and 'modernization' (see e.g. Hozelitz and Moore 1963; Kerr *et al.* 1966; Levy 1966; Moore and Feldman 1960; Parsons 1960; and Slotkin 1960). The major concern of these researches is the effects of industrialization on the non-industrialized Afro-Asian countries.

Of particular interest among these researches is the increasing volume of information about Bougainville being provided by Oliver 1955, 1973; Mitchell 1971; Ogan 1972; Griffin 1972; Couper and Cotter 1972; Mamak and Bedford 1974 and Ward 1975. Although these studies about Bougainville do not directly concern themselves with the processes of modernization and adaptation, they are involved with the implications of industrialization and modernization. The present study is, however, different. Firstly, this study is essentially an attempt to break down larger generalizations to the particular situation caused by the Bougainville copper mine. In other words, Bougainville provides a ready-made natural experiment for the testing of social science generalizations. Secondly, it is mainly concerned with the adaptive behaviour of the Bougainvillians. It is therefore an intimate socio-psychological inquiry into the minds of Bougainville people and their motivations affecting their involvement, commitment and participation in the new socio-economic environment. It sets out to indicate not only the directions towards which change carries the people of Bougainville, but also the speed of the journey.

This investigation begins with the basic proposition made by Fisk (1964) regarding the response of the people living in 'subsistence-affluent' conditions of Papua New Guinea towards cash production. Fisk explained the growth of supplementary cash production and activity as essentially dependent upon the relative strength of two factors - incentive and response. In an earlier publication the present author attempted to test Fisk's proposition with the help of a number of economic, social and psychological factors related to cash crop production in three districts of Papua New Guinea (Moulik 1973). The present study uses a similar conceptual model with special reference to the Bougainvillians' response to wage-earning opportunities resulting mainly from the mining development. In doing so the study investigates the motivations of Bougainvillians towards success in the monetary sector of the economy.

The formulation of the broad objective of the study leads to an important hypothesis: that the subsistence-based cultural traditions of Bougainville with its special set of institutional and socio-psychological factors differ from the motivational patterns needed to adapt and succeed in the monetary exchange economy. There is a second hypothesis: the changes in the antecedent attitudes and motivations of the Bougainvillians that arise from the introduction of

exchange economy via the mining project are not adequate, either in degree or direction, to successful participation in the monetary sector. These two hypotheses are tested in this study with the help of a socio-psychological model of human behaviour.

Framework of analysis

A caveat should be entered regarding the methodology to be followed in the investigation. The important thing is to grasp the impossibility of explaining the behaviour of individuals correctly without taking into consideration the whole set of factors or variables by which they may be prompted or influenced or motivated to act. The first point to remember is that the problem of motivation cannot legitimately be simplified by relating it to a theory of needs. The second major point is that the types of motivations and incentives that induce the people of Bougainville to engage in the modern forms of economic activity, especially the paid employment sector, cannot be considered apart from the situations in which the motivations operate. By situation I mean the conditions of the natural environment, technological standards, and the socio-economic and cultural systems.

One way to grasp the situation is by comparing the motivational patterns operating in a traditional environment on the one hand, and in a 'modern' environment on the other. This will show that motivations in general consist of closely interrelated factors which cannot vary in any particular without affecting the whole. Keeping this in mind, it was decided to carry out a comparative analysis of motivations for two different groups of Bougainville people who differ in economic opportunities, infrastructural facilities, nearness to the copper mine, direct and indirect compulsions attributable to mining operations, ethnic characteristics, etc. Besides, by including school-children as well as adult villagers, the motivations of different age groups will be studied.

The venue

Given the individual Bougainvillian's motivations, values, attitudes and aspirations and the degree of impact of industrialization on the community, how accurately can we predict whether his 'adaptive response' is adequate to

succeed in the monetary sector of the economy? It is with this question that this investigation is primarily concerned.

To answer this basic question, the motivations, values, aspirations and attitudes of individual Bougainvillians in two industrially different regions or communities were compared. It was hoped this comparison would make it possible in a statistical sense to examine separately and together certain socio-psychological characteristics of the individual Bougainvillians, the level of modernization of the community in which each resides, and the history and nature of his adaptive response.

The two regional communities comprising the Kieta and Buin subdistricts of Bougainville, were selected because they could be placed at different points on the rural/urban/industrial continuum, ranging from an isolated largely subsistence-based traditional rural community to a community right in the midst of a modern industrial mining complex.

Until the copper mine came into being, the whole of Bougainville district was essentially rural like most districts of Papua New Guinea. With the development of the copper project in Kieta subdistrict in the late 1960s, there came an intensified spurt of economic, political and infra-structural development activity in and around the copper mine affecting drastically the landscape and socio-economic life in the Kieta subdistrict.¹ The mining towns of Kieta/Panguna/Arawa complex are probably the fastest growing towns of Papua New Guinea and have the typically cosmopolitan characteristics of industrialized cities. Along with these fast growing town centres came the development of roads, wharf, airport, schools, technical college, vocational school, modern hospital, a large supermarket, clubs, various kinds of trading and shopping centres, a number of organized subsistence-produce markets, cinemas, banks, hotels, radio stations and a number of subsidiary industries related to mining projects. These have developed over the last ten years. Besides, the administrative headquarters for Bougainville district remained in Arawa/Kieta townships.

¹ The total area occupied by the BCP and its infrastructure in 1971 was about 60 square miles or approximately 1.5 per cent of the area of Bougainville island. About 70 per cent of the occupied area was tailings disposal area.

Table 1.1

Comparative statistics of Kieta
and Buin subdistricts

Items	Kieta	Buin
Indigenous population	15,905	19,010
Number of villages	134	132
Number of census divisions	8	8
Approximate area (sq. miles)	1,270	1,520
Number of trade stores	79	243
Number of co-operative societies	9	8
Number of primary schools	76	53
Number of technical or vocational schools	2	1
Number of secondary schools	2	1
Number of missions	4	10
Number of hospitals and health centres	17	10
Distance motorable roads approx. (miles)	142	264

Source: Bureau of Statistics, Government of Papua New Guinea, Konedobu (personal communication, 1975).

Table 1.2

Urban populations: 1966, 1971 and 1973

Urban centre		Indigenous population	Non-indigenous population	Total
1966	Buin	306	39	345
	Kieta	644	111	755
1971	Buin	563	50	613
	Kieta	1,794	608	2,402
	Arawa*	3,126	1,916	5,042
	Panguna**	3,670	2,912	6,582
1973				
Urban total in Kieta subdistrict				
	Kieta	797	207	1,004
	Toniva	1,030	267	1,297
	Berempa	400	314	714
	Arawa	1,965	1,787	3,752
	Loloho	450	464	914
	Panguna	3,187	1,350	4,537
	Squatters	54	-	54
		7,883	4,389	12,272

* Includes Loloho

** Includes Wairovi

Source : Data for 1966 and 1971 were obtained from Bureau of Statistics, *Population Census, July 1971 (Preliminary Bulletin No.1)*, Urban Centres, Konedobu, January 1972. Data for 1973 were obtained from the District Administration Office, Arawa.

As a result, Bougainvillians living in the Kieta sub-district 'have been affected in various ways and to widely differing degrees by the [mining] company's land acquisition. Some have been deprived of food-garden sites. Others have lost cash-producing cocoa trees and coconut palms. In still other instances houses or whole hamlets have been demolished or moved.' (Oliver 1973:164). Oliver continues,

To many whose homes and gardens have not had to be moved, the construction of this huge enterprise has brought some physical discomfort and psychological stress. Households bordering the new roads have been subjected to the constant jarring noise of large trucks and the clouds of dust raised by them. In many places the privacy normally enjoyed by the indigenous settlements has been violated by strangers sightseeing, curio-seeking, or in search of women (Oliver 1973:166).

Another principal anxiety aroused in the minds of the Bougainvillians in the Kieta subdistrict is the continuing residence of a large number of non-Bougainvillians and white expatriates in the midst of them.

In contrast to the turmoil of industrial-mining developments in the Kieta subdistrict, the Buin subdistrict, being effectively separated by the lower Deuro range (rising to about 1800 feet) from the Kieta subdistrict, gives the impression of a typical sleepy Melanesian rural area. The only place which can be designated as a town in the sub-district is Buin. Ward (1975:105) gave a graphic picture of Buin town:

Like most other towns in Papua New Guinea Buin originated as an administrative settlement. Unlike some other towns the airfield does not form the focus of the settlement, although it is only three miles away. The nucleus of Buin town is a small grid street pattern built on level land with pre-existing villages nearby but not incorporated in the town. The District Office occupies a central position, with associated high-cost European style government housing near it. Close by also are the offices of the co-operative societies, with the European club and indigenous club buildings within short walking distance. Commercial premises are located on the 'main' street and around one block

adjacent to it. Further west along the main street and away from the District Office are the police and administration labour quarters, a small hospital, the PWD depot and government transport pool, and further south the DASF station. At the eastern end of the town are Buin High School, and the town market, while a mile or two further east is the co-operative society's cocoa fermentary.

In addition, there is a vocational school located in the town. In general Buin was and is a typical 'indigenous' town of Bougainvillian character.

Three contemporary developments have, however, considerably changed the socio-economic lives of the self-contained subsistence-affluent people of Buin subdistrict. Unlike the Kieta subdistrict where copra was the major established source of cash income in the pre-mining period before the 1960s, the Buin subdistrict had no successful cash crops. Except in a few coastal villages of the Buin subdistrict, coconut growing has been a dismal failure owing probably to some deficiencies in the soil. There have been attempts to introduce rice and peanuts in the area as cash crops but they have met the same fate. Until the successful introduction of cocoa by Catholic missionaries about 1959 and by a returned plantation worker at Mosigeta village (Baitu C.D.) before 1960 cash income was derived mainly from the manufacture and sale of baskets (made from the fibre of a plant of the *Lygodium* genus) in Siwai and Buin census divisions, and from employment for cash wages in other parts of Bougainville and to a lesser extent outside the district (Mitchell 1971:218). Cocoa proved to be an extremely successful introduction in the Buin subdistrict and became the predominant feature of the contemporary economic activities in the monetary sector. In the short period of a decade there has been a phenomenal increase in cocoa cultivation among the indigenous villagers of the Buin subdistrict.

In 1972, there were an estimated 3 million cocoa trees in Buin subdistrict and the number of cocoa trees was reported to be increasing at the rate of 10 per cent per year (DASF, Kieta). Coconut plantings in the Buin subdistrict, on the other hand, were modest and the annual increases were slight compared to cocoa plantings. Any increases in coconut tree numbers were mostly not caused by planned plantings, but by default in the sense that they were grown from the unharvested

Table 1.3

Cocoa and coconut plantings* in Kieta and Buin subdistricts 1968-70
 (number of trees planted)

Subdistrict	Cocoa			Coconut		
	1967-68	1968-69	1969-70	1967-68	1968-69	1969-70
Kieta	535,252	734,639	851,477	904,240	980,249	988,814
Buin	1,547,095	1,796,978	2,593,501	633,916	649,964	667,964

* Plantings include both bearing and non-bearing trees.

Source: Cash Crop Census Report, DASF, Kieta.

coconuts. In Kieta subdistrict, on the other hand, both crops showed an interesting trend. There has been an annual increase in the numbers of cocoa and coconut plantings in Kieta subdistrict, but at a much lower rate than for cocoa in Buin. Both in cocoa and coconut plantings, however, the Kieta subdistrict seemed to have reached a plateau by 1970-71.

The second most significant development affecting socio-economic life in the Buin subdistrict was the development of the copper mine. Although there was no direct effect as in the Kieta subdistrict where the mine was located, employment in wage labour experienced an upsurge with the establishment of BCP at Panguna, particularly during the construction phase of the mine. Employment in BCP peaked at about 10,000 during construction, of which 6000 were indigenous workers. In April 1973 about 36 per cent of the indigenous workforce in BCP were Bougainvillians, and of these the largest number were from Buin subdistrict (followed by the Buka and Kieta subdistricts respectively). It was also interesting to note that, within the Buin subdistrict, Siwai census division has the highest proportion of employees in BCP, reflecting higher pressure of population on land (Ward 1975:94). Comparatively, Guava census division of Kieta, where the mining operations are actually located, has the largest share of indigenous employment in BCP within the Kieta subdistrict. BCP is, however, the largest individual wage-employment generating organization in Bougainville.

Table 1.4

Bougainvillians employed by BCP, April 1973

Subdistricts	Total number employed	Percentage of total indigenous workforce
Kieta	268	8.58
Buin	483	15.47
Buka	367	11.75
Not stated	3	0.10
	1121	35.89

Source: BCP, Panguna.

There are many other wage-employment openings, including governmental and private organizations, generated as a result of the mining project where many more Bougainvillians from the Kieta and Buin subdistricts are employed.

The third most important development was the construction, in the latter months of 1972, of a trans-island road connecting Buin with the Panguna/Arawa/Kieta mining-industrial complex. This new road gave all of southwest Bougainville road access to the urban-industrial centre and to the overseas port of Kieta. It so happened that this trans-island road was developed coincidentally at a time when newly introduced cocoa became a success and reached full production in the Buin subdistrict. The trans-island road created a 'chain-reaction' of economic activities in the Buin subdistrict; more and more feeder roads were being constructed and upgraded to provide vehicular access to previously inaccessible villages with a potential for cocoa production; more and more areas were being brought under cultivation; more and more of these could be harvested and marketed directly and easily at Kieta; more and more transport vehicles and tractor-trailers were bought individually or co-operatively (see Ward 1975:131-48); more and more subsistence-type produce was marketed at the urban centres of Panguna/Kieta and more and more people from the Buin subdistrict have travelled and been exposed to the mining-industrial-urban life of Panguna/Arawa/Kieta complex. Ward (1975) has described in much greater detail the impact of the trans-island road on the Buin subdistrict. In short, this road development has brought the villagers of the Buin subdistrict from their isolation into a direct and intimate contact with the industrial culture created by the mining project.

Before finishing the story of the differential exposure of the Kieta and Buin subdistricts to the industrial-monetary economy, two more points should be made: firstly, there had been a sudden and relatively huge cash flow into the hands of Bougainvillian subsistence producers and, secondly, organized institutional help, both in terms of technical advice and credit facilities, had been extended to Bougainville villagers in order to promote indigenous-owned commercial enterprises. In both these ways, Kieta villagers benefited most. The villagers of the Kieta subdistrict, especially those from North Nasioi, Guave and Nagovisi, who were directly affected by the mining development, were and are being paid a large amount of money as compensation by BCP. To give an idea, by early 1972 BCP had paid about \$A200,000 in occupation

Table 1.5

Sale of cocoa at the Kieta port of inspection, 1970-74* (tons)

Year	Co-operatives		Traders		Individuals		Planters		Total	
	Kieta	Buin	Kieta	Buin	Kieta	Buin	Kieta	Buin	Kieta	Buin
25.6.70 to 31.7.71	565.88	837.25	67.63	25.81	2.44	8.06	389.31	13.88	1025.26	885.00
1.8.71 to 30.6.72	526.75	1017.69 [*]	54.00	93.31	6.06	8.06	585.88	50.81	1172.69	1169.87
1.7.72 to 30.6.73	501.25	702.44	68.25	194.38	12.75	4.94	804.94	21.56	1387.19	923.32
1.7.73 to 31.3.74	464.69	1018.13	119.94	592.38	16.00	17.25	627.31	43.69	1227.94	1671.45

* Except 'Planters' all other categories of sellers are indigenous Bougainvillians.

Source: Produce Inspector's Cash Register, Kieta Port, Bougainville.

Table 1.6

Sale of copra at the Kieta port of inspection, 1970-74* (tons)

Year	Co-operatives		Traders		Individuals		Planters		Total	
	Kieta	Buin	Kieta	Buin	Kieta	Buin	Kieta	Buin	Kieta	Buin
25.6.70 to 31.7.71	134.50	47.79	221.00	39.79	178.57	50.64	1014.79	Nil	1548.86	138.22
1.8.71 to 30.6.72	30.00	81.50	219.07	85.07	326.79	54.36	1621.21	Nil	2197.07	220.93
1.7.72 to 30.6.73	5.29	80.00	173.86	101.50	632.86	130.71	1669.14	Nil	2481.15	312.21
1.7.73 to 31.3.74	84.36	42.21	82.21	89.21	963.86	72.57	880.00	Nil	2010.43	203.99

* Except 'Planters' all other categories of sellers are indigenous Bougainvillians.

Source: Produce Inspector's Cash Register, Kieta Port, Bougainville.

fees to landowners whose land was covered by company mining leases; such payments, at least \$A62,000 per annum, will continue for the life of the mine; as general compensation for the damage to land and flora, including cocoa and coconut palms and fishing, over \$A50,000 had been paid by BCP by early 1972, and an estimated \$A200,000 to \$A300,000 will be paid to the landowners for damage in the future; and lastly, rehousing or relocating of affected village sites is expected to cost BCP about \$A846,500 and village protection and associate access work about \$A374,000.² Although not all villagers received a large amount of compensation money individually, there were considerable numbers of villagers who did receive individually very large sums indeed. For a subsistence villager whose cash income had been less than \$A30 per year, such a huge and sudden compensation payment will obviously have tremendous impact, both in the short and long run. Villagers of the Buin subdistrict missed this.

Apart from the compensation money, Kieta villagers also received far greater attention, supervision and advice from several governmental and private organizations, simply because they are in close proximity to the centre of these organizations. Of these, the mining company's Business Advisory Department and the Development Bank of Papua New Guinea are the most important. For example, over the years about four times more funds for establishing cash earning enterprises were advanced to indigenous people of the Kieta subdistrict than to those of the Buin subdistrict. Not only were the amounts of loan advanced bigger, but the number of borrowers in Kieta area was more than in Buin. Up until 25 March 1974, there were 119 successful loan applicants in Kieta compared with 83 in Buin. There were also some striking differences in the purposes for which the loans were advanced between Kieta and Buin areas, indicating perhaps the infrastructural and other limitations of the Buin subdistrict. Nevertheless, the fact remained that the institutional help both in terms of credit and technical advice have been directed more towards Kieta than to Buin.

² Figures on compensation were derived from Scott and Co., 1973.

Table 1.7

Development Bank loans to indigenous people of Kieta
and Buin subdistricts, 24 August 1970 to 25 March 1974 (in \$A)

Year*	Purpose of loan											
	Agricultural development		Livestock		Transport		Tradestore		Other commercial		Total	
	Kieta	Buin	Kieta	Buin	Kieta	Buin	Kieta	Buin	Kieta	Buin	Kieta	Buin
1970	2,303	160	nil	830	9,406	4,286	1,128	nil	nil	nil	12,837	5,276
1971	1,589	3,913	2,200	17,010	26,637	19,426	500	3,700	1,130	610	32,056	44,659
1972	16,500	1,480	2,870	1,720	105,907	28,346	4,800	1,800	340,561	31,040	470,638	64,386
1973	1,400	nil	nil	200	13,807	14,916	5,300	9,000	80,688	nil	101,195	24,116
1974	700	nil	4,060	nil	7,346	7,361	1,677	nil	5,540	250	19,323	7,611
Total	22,492	5,553	9,130	19,760	163,103	74,335	13,405	14,500	427,919	31,900	636,049	146,048

* Data for 1974 were only for 9 months extending from 1 July to 31 March, while the data for other years were for a full 12 months' period.

Source: PNG Development Bank, Arawa.

Selection of villages and samples

It was decided to carry out in-depth comparative analysis of Bougainvillian individuals living in the Kieta and Buin subdistricts, taking a limited number of villages from each. The comparative method followed in this investigation was expected to help discover repeating spatial patterns and processes and to contribute to a better understanding of significant differences and variations in spatial phenomena (Brookfield 1962), and then to help correlate them in such a way as to discover general regularities.

During my initial familiarization trip to the two subdistricts, thirty-three village settlements were visited and their agricultural development in terms of cash cropping and subsistence production, transportation and communication facilities to market centres and to major wage-employment centres of the Kieta/Arawa/Panguna complex, and other modern socio-economic facilities such as banks, schools, etc. were checked. Based on these criteria, seven villages of the Kieta subdistrict and ten villages of the Buin subdistrict were selected for intensive work (see frontispiece map). The seven selected villages of the Kieta subdistrict were from three administrative units: two from Guava census division, two from North Nasioi census division and three from South Nasioi census division. Of these three census divisions, Guave and North Nasioi were directly affected by the copper mine development. In the Buin subdistrict, ten villages were chosen from three census divisions: four from Lugakei, three from Paubake and three from Siwai census divisions. All the selected villages in the Kieta subdistrict were connected either directly with an all-weather motorable road or were within two or three miles walking distance from the vehicular road linking Panguna/Arawa/Kieta townships. Similarly, all the selected villages of the Buin subdistrict were directly accessible by all-weather vehicular track except Kikimogu, Parreno and Ipilai which were linked with the vehicular road by village walking tracks. However, in fair-weather months these walking tracks could be negotiated by a four-wheel drive vehicle without much difficulty. The villages chosen were all within 20 miles of the respective subdistrict administrative headquarters. As a microcosm of the larger regional communities, these selected villages were broadly typical of many other villages of the respective subdistricts and together they illustrated the characteristics of differential impact of and people's response towards monetary economy influenced largely by the mining development.

Table 1.8

Population details of villages selected in Buin subdistrict*

	Pariro	Kugugai	Parerono	Ipilai	Mamma- romino	Luaguo	Kikimogu	Kokui	Kutin	Rusei	Total
Village population	378	91	169	190	341	124	148	135	86	290	1952
All children as % of village population	48	41	43	49	47	41	52	54	48	52	49
Adult males as % of village population	23	31	20	23	23	31	22	23	26	24	28
All absentees as % of village population	8	7	17	5	9	3	2	27	28	48	16
Adult male absentees as % of adult village population	7	5	17	5	7	3	2	4	7	19	12
Total village households	54	23	64	39	60	32	34	23	21	53	403
Sample households	20	17	32	18	41	19	21	12	15	33	228
% of village households in sample households	37	74	50	46	68	59	62	52	71	62	57

* Where not mentioned specifically, the figures include absentees at the time of investigation.

Note: Pariro, Kugugai, Parerono and Ipilai are in Lugakei census division; Mammamomino, Luaguo and Kikimogu are in Paubake census division; Kokui, Kutin and Rusei are in Siwai census division.

Table 1.9

Population details of villages selected in Kieta subdistrict*

	Guava	Pakia	Kuka	Pankama	Pidia	Bonmung	Tavidua	Total
Village population	134	202	48	83	133	136	144	880
All children as % of village population	52	41	37	49	53	40	71	50
Adult males as % of village population	22	28	35	29	27	31	15	25
All absentees as % of village population	44	24	13	15	2	9	17	19
Adult male absentees as % of adult village population	22	19	16	17	5	7	29	14
Total village households	40	89	14	18	49	43	51	304
Sample households	25	72	8	11	40	29	40	225
% of village households in sample households	62	81	57	64	82	67	78	74

* Where not mentioned specifically, the figures include absentees at the time of investigation.

Note: Guava and Pakia are in Guava census division; Kuka, Pankama and Pidia are in North Nasioi census division; Bonmung and Tavidua are in South Nasioi census division.

The adult male heads of households in the selected villages were the units of observation for the intensive study. All such male heads of households who were available and prepared to co-operate during the period of investigation comprised the sample of the study. The sample of adult male Bougainvillian villagers (225 in Kieta and 228 in Buin) represented 74 per cent of the total households in the selected villages of the Kieta subdistrict, and 57 per cent in the Buin subdistrict.

One other sample, the young school students of the two subdistricts completed the study. The school students were included in the study in order to tap responses from a most important potential labour force in Bougainville. The importance of these young Bougainvillian students in the analysis of motivation needs no emphasis. In the long run the type and degree of participation of Bougainvillians in the monetary sector of the economy will largely be determined by the attitudes and motivations of this young group. These sensitive young people have been subjected to conflicting psychological pressures: an overwhelming internal tug-of-war between the influences of modern industrial ways of life and the subsistence-oriented traditional rural ways. In what ways do these two different forces affect the attitudes and motivations of young students? Do the schooling and age make any difference and create a 'generation gap'? A host of questions relevant to the objectives of the study could be raised. The study, therefore, included in its sample for intensive inquiry a fairly large number of Bougainvillian school students, both male and female. In all, 277 students of the Kieta subdistrict and 319 of Buin subdistrict (that is, with their home villages in the respective subdistricts) were chosen from a number of primary and high schools and a technical college. The students sampled were those in standards 5 and 6, form 1 to 4 and the first and second year of technical college.

³The students were selected from: Tupukas Primary School, Arawa; Tunnru Primary School, Tunnru Mission Station; Arawa High School, Arawa; and Arawa Technical College, Arawa, located in the Kieta subdistrict, and from Buin Primary School, Buin; and Buin High School, Buin, in the Buin subdistrict.

The students were classified according to their home village irrespective of the schools where they were presently studying.

Field work

I brought to Bougainville some knowledge of the interpretation of the impact of monetary economy, especially of the copper mine, gained from the writings of kindred social scientists (to mention a few: Oliver 1955, 1973; Ogan 1972; Ward 1975; Mitchell 1971; Couper and Cotter 1972; Griffin 1972, 1973; and Scott and Co. 1973), from my own research experiences in other parts of Papua New Guinea during 1970-73, from historical analysis, and from innumerable formal and informal discussions with knowledgeable persons, particularly the Bougainvillian university students at Port Moresby. Therefore by the time I reached Arawa for fieldwork in November 1973, I had already some broad ethnographic and socio-economic information on Bougainville village structure and economy.⁴

I and my family spent about eleven months in Bougainville, based in the town centre of Arawa. From our observation, participation, and questioning the story of Bougainville was built up. We attended the principal recurring social activities of marriages, sing-sing, church, markets, sports, as well as observing and taking some part in the daily life. In the process a large number of Bougainvillians came to be our personal friends and acquaintances. In December 1973, my wife took a job with the Public Health Department with her office at the hospital at Arawa, and this helped us build wider personal contacts with large numbers of Bougainville people. The socio-psychological facts reported in this study were the results of thousands of observations, compared over a period of ten months, as to their context, frequency and meaning. The fieldwork was started with a rather loose research design which has been modified and redesigned again and again in the act of collecting data, not simply as a routine matter of filling the slots, but to give meaning and interpretation to the phenomena observed.

The first collection of data started with young school students, because they were available and easy to handle. The children were interviewed in their familiar school

⁴ Because of the different focus of the present investigation and also because considerable amounts of information and data are already available in published literature, socio-anthropological information relating to the selected villages is not presented in this report in great detail.

environment in three different sessions spread over three days. It was during the interviewing sessions with the Arawa Technical College students that six local Bougainvillian students were chosen to assist during their vacation in the collection of data from the selected villages. They were from the same areas as the villages selected and were therefore accepted as interviewers in the sense that they did not arouse suspicions and fears as would an outsider. These local assistants were trained and briefed personally by me and a quality control of their performance was carried out in the field by a trial run of interviewing respondents by themselves.

By the end of January 1973 the final selection of villages and sample households was over, the process which I started simultaneously with interviewing the school students. By the middle of February 1973 the village level collection of data was started. The job of interviewing the heads of village households was, however, not completely left with the local hired interviewer except for collection of general factual information, such as age, sex, education, religion, family background, previous wage-employment experience, cash crops, etc. The in-depth interviewing of the village respondents was done by me personally with the assistance of the local interviewers. In the villages of the Kieta sub-district, my personal supervision of interviewing could easily be programmed and organized from my temporary home at Arawa. For the villages of the Buin subdistrict, however, I had to go to Buin and live there. Every village respondent was interviewed individually in at least three sessions, each of 1-2 hours, over a period of a week or fortnight. The interviewing was done in the local language but in almost all cases pidgin was used between me and the respondent.

Techniques and tools

The burden of making the story of the Bougainvillians' motivation to succeed in the monetary economy scientifically relevant rests in part on the techniques of data collection employed in the study and the theoretical apparatus invoked. Since the average Bougainvillian is not usually given to reflection on the pattern of his life, the assessment of his motivation at its true worth involves the greatest caution.

The first technique that presents itself as a means of solving the problem is that of tests, the method of posing

questions arranged to satisfy two requirements: first, that the question and the conditions in which it is submitted remain the same for each respondent; second, that each answer be related to a scale or schedule which serves as a standard of comparison both qualitative and quantitative. The two most important tests used in the present investigation were the Thematic Aperception Test (TAT) in order to assess individuals' motivations for achievement, affiliation and power, and the test for measuring individuals' level of aspiration. Both these tests were specifically developed and used by the present author in Papua New Guinea (Moulik 1973). The other tests used for only the student groups were: a respectability rating scale of occupations, a ranking scale of motivational factors for future career plans, and a scale for measuring social distance of the Bougainvillians from the non-Bougainvillians.⁵ For the adult male villagers, the tests used were: a test for measuring prejudice of the Bougainvillians against Papua New Guinea migrants (adapted from Curtis, Timbers and Jackson 1967:235-46), a test to measure intolerance (Sokol 1968), and a test to measure anomie (Srole 1956).

The essential failure of the test method in the researches with which this study is concerned is that it falsifies the natural mental inclination of the respondent or at least risks so doing except perhaps in the case of TAT. The only way to avoid such difficulties is to vary the questions, to make counter suggestions, in short, to give up all idea of a fixed questionnaire and a fixed set of responses. This leads to the use of pure observation. Observation must be the starting point of all research dealing with such intangibles as human attitudes and motivations. In the present research, it was the observation and conscious systematic sharing, in so far as circumstances permitted, of the spontaneous questions and issues raised by the respondents which furnished the data of the highest importance. The detailed study of the contents of these questions and issues revealed the interests and attitudes of the respondents at different points and revealed those questions which the respondents were revolving in their own mind and which might never have occurred to us, or which we should never have framed in such terms.

⁵ Adapted from Mann's Social Distance Scale referred to in Dickie-Clark 1966:220.

But pure observation has at least two serious drawbacks: first, alongside those thoughts which could be expressed by the Bougainvillian respondents, many more unexpressed thoughts remain unknown. The second drawback is the difficulty of distinguishing a respondent's random thought or romancing from his inner motivations and attitudes. It was therefore essential to go beyond the techniques of pure observation - which was also tedious and seemingly unable to guarantee the quality of the results, except at the expense of their quantity. To avoid the respective disadvantages of the two techniques mentioned above, the technique which has been used mostly in the present study was a kind of clinical examination like that used by psychiatrists as a means of diagnosis. It may also be called planned intensive participant observation technique. This technique is essentially experimental in the sense that the researcher sets himself a problem, makes a hypothesis, adapts the conditions to them and finally controls each hypothesis by testing it against the reactions he stimulates. But the clinical technique is also dependent on direct observation, in the sense that the researcher lets himself be led, though always in control, and takes account of the whole of the mental context. A large amount of data was collected in the present investigation by following this clinical technique in which questions asked were simply trend-setting, unstructured and open-ended, without being suggestive. In fact most of the questions in the interviewing schedule pertaining to adult villagers' attitudes and motivations towards industrial work, leisure, contemporary changes and development, preferences and prejudices, were of this kind. The essence of this clinical technique was to separate the wheat from the chaff and to keep every answer in its context.

Chapter 2

Economic life in the villages

Bougainvillians, as any other society, had a definite and distinct notion about their style of life which they called 'the good life'. Striking changes have been made in the Bougainvillians' notion about this style of life by the introduction and wider extension of the money economy, and by the development of a large-scale modern mining industry. How and to what extent are the Bougainvillians able to realize their perceived notion about 'good' standards of living in terms of production and consumption? The quantitative and qualitative aspects of this topic will be dealt with in this chapter in an attempt to get a clear picture of the socio-economic life of the villages under investigation.

In other words, what is examined here is the Bougainvillian villagers' response to the opportunities offered by the monetized economy. Fisk (1975) picked out four key stages of participation in monetized economy as a process of development: (1) Pure subsistence in isolation, in which there is no effective contact with the monetized sector, and all consumption depends on self-subsistent production; (2) Subsistence with supplementary cash production, in which the essentials of life are still mainly produced by the group that consumes them, but supplementary production is undertaken in order to secure access to market goods and services not obtainable directly from their own resources. An example is the subsistence gardener who produces some extra staple foods for sale, who adds a small grove of cash crops or who leaves his family and goes away to work for a time for wages; (3) Cash orientation with supplementary subsistence, in which the producer is oriented towards the monetized economy, and his main productive efforts are directed at earning a money income, but some, even a substantial part of the basic foods and other necessities may be home produced; and lastly (4) Complete specialization for the market, in which specialization and division of labour are exploited to

the maximum and the producer is dependent on the market for all the goods and services he requires.

In these terms, at what stage are the Bougainvillian villagers? Until recently Bougainvillians were basically subsistence gardeners supplementing their production with pig-raising, fishing and hunting. Oliver (1973:46) described the Bougainvillians:

Bougainvillians were, and most continue to be, farmers - by tradition, by necessity, and by choice. In pre-European days they obtained most of their foodstuffs from their own gardens, supplemented by fishing, pig raising, collection of tree crops and wild plants, and a little hunting. With the use of a few simple, self-made tools they managed to subsist fairly healthily in a natural environment where perhaps few Europeans so equipped would be able to survive.

The present-day Bougainvillian villager still maintains his subsistence garden to grow all the staples he consumes, and perhaps still enough surplus to sell some in the market; he has a grove of cash crops of cocoa and coconuts to look after and sell in the market; either he himself or one or two of his family members possibly work for wages somewhere; and if he has some entrepreneurial skills and aspirations he owns some trading or other commercial '*bisnis*'. How do the Bougainvillians spread their resources of time, labour and capital over this range of economic activities?

Subsistence production

It has often been maintained by Bougainville villagers that a family must control at least three patches of subsistence garden on the traditional basis of bush-fallow cultivation to live at the level which custom and aspirations call comfortably adequate.¹ A 'family' is a household unit of at least two adults and three children. With normal production from such gardening a Bougainvillian family can easily meet its customarily defined standard of enough in quantity and quality and variety of food, obligatory

¹ Oliver (1973:49) estimated that each Siwai family would require a continuous strip of about 9.6 acres of land divided into rectangular patches for adequate supply of subsistence foods.

traditional exchanges and other contingency expenses, such as smoking, clothing, etc.

Details of subsistence gardening methods followed by the Bougainvillian villagers are described by McAlpine (1967: 160-4), Oliver (1955:22-34; 1973:46-77), and Mitchell (1971). However, a significant development in the organization of subsistence garden production in Bougainville resulted from development of the copper mine. Market demand for fresh foods, vegetables, fish and meats expanded considerably. It was, for example, estimated by DASF that compared to mid-1970, market supplies of fresh fruits, vegetables and starch staple would have to double or treble by 1975, and to increase by approximately 2.5 to 4.5 times by mid-1980. This sudden expansion of market demand for subsistence produce was not restricted to traditionally grown items, but required large-scale production of a more diversified range of commodities. On the other hand, the mining company has a policy that fresh foods required for the workforce of the mine should be obtained as far as possible from local sources in order to encourage indigenous enterprise.

As a result, many new varieties of fruits and vegetables are being introduced into the crop-calendar of traditional Bougainvillian subsistence gardening. A number of well organized buying points and markets are established in areas of potential supply and demand. The main areas served by these buying points and markets are the Kieta coastal region, Guava census division, North and South Nasioi census division and Nagovisi census division - all in the Kieta subdistrict. In Buin subdistrict, on the other hand, there is only one subsistence produce market, located in Buin town itself, whilst there are eight organized buying points or markets in Kieta subdistrict. However, as postulated by Ward (1975:59), the opening of the trans-island road has extended the distance from which villagers of the Buin subdistrict may find it economically rewarding to bring fresh subsistence produce for sale in the markets located in the Kieta subdistrict.

How interested are the local Bougainvillian villagers in participating in the production and marketing of fresh fruits and vegetables? This can be ascertained by looking at the amount of resources spent by the Bougainvillian villagers in subsistence production and marketing.

From a survey of subsistence land ownership of sample households in the study villages, it appeared that most Bougainvillian families use on an average two acres of land annually for gardening. The average area of land under subsistence gardening is comparatively smaller in the Kieta subdistrict than in the Buin subdistrict. This is perhaps due to the inclusion in the sample of the Kieta subdistrict of two villages (Guava and Pakia) of Guave census division) which are affected directly by the mining development. It must be noted, however, that even in Guave and Pakia all the households have some land for subsistence gardening.

The type of land chosen for garden sites varies from area to area. In Kieta villages gentle upper slopes of the hills, broad ridge tops, and stream terrace are preferred, while in Buin inland plains and plateaux are favoured.

Traditional methods of bush-fallow cultivation are usually followed. The gardens are laid out generally into two to three rectangular blocks, mostly close to each other (sometimes contiguous) and generally arranged in sequence (Oliver 1973:47). The size of each block of garden would range from 0.75 to 1.0 acre. The garden sites are generally preferred near the house. In Kieta villages, for example, average distance of garden sites from house is about eight minutes of walking time, maximum distance being 30 minutes of walking time (in few cases). In Buin villages, on the other hand, the range of distances from house to garden sites is larger, between 10 and 140 minutes of walking time, with an average of about 55 minutes.

Traditionally, tuberous root crops, sweet potato, taro, and yam are the main crops in the subsistence garden, of which sweet potato is most widely cultivated as the main staple crop. Besides these three main staples, subsidiary foods like sugarcane, pawpaw, bananas, breadfruit, sago, some kinds of nuts and leafy vegetables are also grown. With the increase in demand due to mining developments, a host of new crops and vegetables are being introduced, e.g. tomatoes, onions, pumpkins, pineapple, maize, egg plant, beans, potatoes, cabbage, melons and even mandarins and oranges in hilly areas of Kieta subdistrict.

Hunting and fishing also form part of the subsistence activities of the villagers. However, these activities, especially hunting, are seldom such organized and serious undertakings as they were in pre-European times. Fishing,

Table 2.1

Subsistence land ownership, labour in subsistence activities
and cash income from sale of subsistence produce

Items	Kieta (n = 225)	Buin (n = 228)
Area of subsistence land per household (in acres)	3.15	4.08
Labour of adult men in subsistence activities* (hours/week)	12.06	11.30
Total income for the sample households from sale of sub- sistence products (\$ per month)	602.00	24.00
Income from sale of subsistence produce per labour unit of household** (\$ per month)***	0.64	0.02

* Details of the labour of adult men in subsistence activities were obtained from a survey of everyday activity patterns of forty men belonging to forty different households of the sample, twenty from Kieta and twenty from Buin. The number of hours individuals spent on various tasks was recorded each day for three weeks following the methods used by Waddell and Krinks (1968). However, as mentioned in an earlier publication (Moulik 1973:113), the data on labour input could at best be rough estimates of the actual.

Subsistence gardening includes fencing, clearing, planting, weeding, harvesting and marketing as well as travelling time spent on these activities. It should be noted that women spent about 5 to 6 times more time in these activities than men.

** A family labour unit was computed by assigning a coefficient of 1.0 for adult members (male or female) and 0.50 for children (below fifteen years).

*** Average labour unit of sample households of Kieta sub-district was 4.2 and for Buin subdistrict 5.4.

on the other hand, is a serious regular activity for some villagers of the Kieta coastal areas, but is almost non-existent among the Buin villagers.

The pig is the most important domestic animal having a special place in the traditional social organization of Bougainvillians. It appeared, however, that the Kieta villagers, particularly in villages like Guava and Pakia which are near the mining area, have grown extremely reluctant to raise pigs by themselves. There are villages like Rorovana where none of the households keep or raise any domestic pigs. Similarly, in other Kieta villages under the present investigation, not more than 10 per cent of the households have domestic pigs. When questioned about their reluctance, the Kieta villagers gave several reasons: 'pigs make the homestead dirty and destroy the foodgrains'; 'no labour time to look after the pigs as everybody in the family is busy with their work'. What these villagers do not talk about are the influence of missions, particularly the Seventh Day Adventist Mission, and the increase in cash income which enables them to buy easily available tinned meat and fish. Perhaps these reasons are implied in their answers. Whatever the reasons, pig-raising has become an insignificant subsistence activity in the villages of the Kieta subdistrict. Pig-raising is a vastly more important activity among the Buin villagers. Almost all households in the villages studied in the Buin subdistrict own at least one pig, and in most villages the average is three per household (including piglets). Besides pigs, other domestic animals observed in the villages were a few poultry in some households and dogs which just happen to be there, but do not receive any particular attention or care.

Oliver (1973:47) observed in Siwai villages that, 'More than half of an adult Siwai's working hours are taken up with food - with producing, collecting, processing, and consuming it. This is an average, for women spend about ten hours daily at it and men generally much less'. In a survey of activity patterns of a small sample of adult men in the study villages it has been roughly estimated that a Bougainvillian adult man, either from Kieta or Buin, works an average of 11 to 12 hours per week on various activities associated with subsistence gardening (see Table 2.1). In fact, the number of hours spent by a Kieta man on subsistence gardening is found to be slightly more (about one hour more per week) than his counterpart in Buin villages. It must be noted, however, that for the Kieta man about 50 per cent of

the labour put into subsistence gardening is exclusively related to actual marketing activities as compared to only 0.8 per cent of the labour input of a Buin villager. In other words, a Buin villager (adult man) spends significantly more time in the actual production of subsistence gardening than the Kieta villager who, on the other hand, spends more time in marketing subsistence produce than the Buin villager. Women of course spend five or six times more labour hours in the subsistence gardening activities than men, for traditionally subsistence gardening is thought to be women's specialization and responsibility. This excludes the heavy work involved, such as initial clearing, preparing new land, fencing, etc., which is traditionally men's work.

The favourable response of the Bougainvillian villagers to the opportunities created by the increased demand for fresh foods and vegetables due to mining development is amply demonstrated by the amount of labour directed by Kieta villagers into activities related to marketing. So far, this response is restricted to the Kieta villages for obvious reasons of nearness to the selling point and infrastructure, such as road and organized market facilities, which Buin subdistrict is lacking. As a result, almost all the households in the study villages of Kieta subdistrict are found to participate in production and marketing of subsistence produce, whilst only 2 per cent of the households in the study villages of Buin subdistrict did so. Consequently, the cash income earned through sale of subsistence type produce is much higher in Kieta households (\$0.64 per consumption unit per month) than in Buin households (\$0.02 per consumption unit per month). The differential response to marketing opportunities for subsistence produce between Kieta and Buin villagers does not manifest itself only in the quantitative aspect of income but also qualitatively; the Kieta villagers participate more regularly and are more willing to bear transport costs in order to participate than the Buin villagers. Certainly the road facilities, size of demand, organized markets and buying points are contributing factors for this differential response between Kieta and Buin villagers. For example, among the study villages in Buin subdistrict, only Luaguo, Mammaramino and Kikimogu have easy access to the only food market of the subdistrict, that is, Buin town market, whereas the study villages of Kieta subdistrict are close and have easy access to more than one buying point. Besides, demand in the Buin town market is extremely limited compared to markets and buying points in Kieta subdistrict.

Table 2.2

Participation of Bougainville villagers in
subsistence produce market*

Participation per market day	Kieta**	Buin***
Average number of villages participating	19	5
Average number of sellers	55	45
Percentage of regular sellers attending every market day	90	54
Percentage of sellers bearing transport cost to attend market	44	15
Average cash expenditure on transport per seller (in \$)	0.17	0.03
Average value of produce brought for sale per seller (in \$)	2.86	1.35
Average amount of produce sold per seller (in \$)	2.41	1.25

* The data in the table are based on market surveys conducted during the study. For details see Appendix 2.1.

** In the Kieta subdistrict seven markets or buying points were surveyed. These markets or buying points were held either once or twice in a week. Four buying points were surveyed only once and the other four were surveyed more than once.

*** In the Buin subdistrict the only market of Buin town was surveyed on five market days. The market was held twice a week.

It is only very recently, with the opening of the trans-island road, that a young Siwai entrepreneur has started a business selling local subsistence produce to BCP and other organizations (e.g. Rigo School in Kieta). He is reported to sell weekly about 20,000 lb of sweet potato, taro, pumpkin, etc. at 5.5c/lb, 3000 lb of onions and beans at

12 c/lb and 4000 lb of fruits at 7 c/lb to BCP plus 11,736 lb of sweet potato, taro, pumpkin, etc. at 4 c/lb to Rigo School. Over the week he buys this produce from local growers in surrounding villages at a flat rate of 3 c/lb and stores them in a shed specially built for the purpose in front of his house on the trans-island road. On a fixed day of the week, he transports the produce by one of his two trucks to BCP at Panguna and to Rigo School at Kieta. The trucks are sent around the villages to buy the subsistence produce from the local growers while many local growers personally bring their produce to the buying point of his store-depot. Occasionally a few people from distant villages also bring their produce to sell at his depot. In fact, in each of the study villages of Siwai census division, at least two or three households were found to sell their produce occasionally to this entrepreneur. His major problem, however, is not the short supply of local produce but the truck-transport on the trans-island road which often becomes difficult owing to flooding of several rivers and streams. As a result, particularly after heavy rain which happens quite often in Bougainville, the regular supply of produce becomes difficult. This will remain a problem until bridges and culverts are constructed over the rivers and streams along this road. Perhaps because of this difficulty and other organizational problems he seems to be reluctant for the present to expand his business for which there is large scope.

But so far the favourable response of the Bougainvillian villagers in the production and marketing of subsistence produce remained by and large a mere extension of traditional methods of subsistence gardening. A few new crops are grown in the existing traditional cropping pattern of the subsistence garden. No separate gardens are maintained specially for market crops. Whatever is sold in the market is normally the surplus from the gardens after domestic requirements are met. The usual method of sale of produce in these markets is per bundle or per item except those sold to BCP. Introduction of payment of cash on a specified price per pound weight basis for each commodity (excepting some items like pineapple, pawpaw, etc. which are sold per item) by BCP is a radical departure from the usual indigenous method of sale. This has given the local growers some idea about the functioning of modern market economy and standardization of the pricing system. However, the indigenous growers seem to feel more comfortable in following the old method of sale per bundle or per item. But on checking, it appears that

the Bougainvillian growers calculate rather closely in fixing the price per bundle or per item as compared to the price per pound weight basis. How much of it is due to the influence of BCP's introduction of payment on weight basis is difficult to assess. Similarly, BCP's introduction of quality control in about June 1970 has made the indigenous growers more careful in carrying produce to the market, although initially the growers resisted the introduction of quality control in a partial boycott in some markets. There is, however, very little bargaining about the price of produce in the markets. Price is almost uniformly fixed without much variation. The indigenous growers do not seem to be yet used to the bargaining culture of an exchange economy.

Cash cropping

The most important component of Bougainville's cash economy is the commercial cultivation of two major cash crops, cocoa and copra. Over 60 per cent of the total cash income accruing to Kieta villagers comes from these cash crops, while for Buin villagers they contribute over 80 per cent of total cash income. It must be repeated here that the only economic cash crop of any significance in the Buin subdistrict is cocoa and it is almost exclusively produced by the indigenous growers. On the other hand, both copra and cocoa are important cash crops in Kieta subdistrict and the plantations contribute a sizeable proportion of the total production there.²

Except for Guava village of Kieta subdistrict, all the villages under investigation have some land under cash crops. As stated earlier, mining development caused destruction of cash cropping in the villages of Guava, Pakia, Kuka, Pankama, and Pidia. However, it is only in Guava village that the damage done by the mining operations to cash cropping was complete, in that none of the households there now have any available land for cash cropping any more. All the other villages are realigned and resettled with some minor damage to the existing cash crops. Among the households under

²Yearly data on sale of copra and cocoa as given earlier in Tables 1.5 and 1.6 indicate clearly the comparative importance of cocoa and copra as a source of cash income in the two subdistricts, and also show the relative share of the total sale of these cash crops by the indigenous producers and plantation owners.

study, for example, only one in Pidia, two each in Pakia and Kuka and three in Pankama do not grow cash crops. In contrast, all the households under investigation in Buin subdistrict have some land under cash crops.

Copra is the main cash crop for the households in Kieta subdistrict. Only 28 per cent of the grower households under study have both cocoa and copra under cultivation. On the other hand, all the households in Buin subdistrict have both copra and cocoa, but copra is not a major commercial crop in Buin subdistrict because of low yield and soil deficiencies. Although the number of coconut palms per household in Buin subdistrict is quite large, the copra made is mostly used for home consumption or for sale in the food markets. Thus, for the sample households, copra is the major cash crop in Kieta subdistrict and cocoa in the Buin subdistrict. Besides cocoa and copra, there has been an attempt to introduce coffee as a cash crop in the hilly and cooler region of the Kieta subdistrict. However, the attempt has so far not been a success. Very few Kieta villagers have taken to coffee cultivation; only 7 of the 225 sample households in the Kieta subdistrict were found to grow some coffee and this contributed only a minute fraction of their total income from cash crops.

Besides actual destruction of food gardens and cash crops during the initial development phase of the copper mine, the generation of alternative income sources through various employment openings related to the mine and its subsidiaries has had a marked effect on day-to-day village occupations and cash cropping. As Scott's report (1973) suggested, the effect has been very pronounced in the Kieta subdistrict and the northern parts of the Buin subdistrict (e.g. Siwai census division), especially for the young males in the villages. In the past only a very small percentage of adult males were successful in obtaining wage-employment. With the opening up of a greater range of prospects many more, particularly young Bougainvillians, have either already availed or are in the process of availing themselves of the opportunities. There are villages in the Kieta subdistrict, for example, where no adult or young male members could be found from early morning to late evening - there were only a few old males, women and children. The effect of wage-employment on the economic activities of the villagers in terms of income and available labour units will be discussed later. For the present suffice it to say that the immediate result of the generation of alternative employment openings by BCP is less

Table 2.3

Cash crop census for sample households

Items	Kieta subdistrict	Buin subdistrict
Number of sample households	225	228
Average number of labour units per household	4.2	5.4
Number of bearing cocoa trees per household	127	637
Number of bearing cocoa trees per labour unit	30	118
Number of non-bearing cocoa trees per household	52	134
Number of non-bearing cocoa trees per labour unit	12	25
Number of bearing coconut trees per household	315	210
Number of bearing coconut trees per labour unit	75	39
Number of non-bearing coconut trees per household	81	69
Number of non-bearing coconut trees per labour unit	19	13

* The labour unit per household was calculated on the same basis as consumption units.

manpower available in the villages and therefore a loss of potential cash crop production. There has been a deterioration of access routes (e.g. grass not cut, washouts not repaired, etc.), a lowering in standard of care and attention to plantings, and a lack of labour to harvest and carry the crop. Some plantings are not harvested at all and are completely neglected (Scott 1973; also reported by DASF, Kieta). In addition, there is the adverse effect of the relatively high wage level available in the Kieta subdistrict, mainly due to BCP. Until 1971 it was possible, for instance,

to have a labourer for clearing the land for 60 to 70 cents per day; it is now difficult to obtain labour even at \$1 per day. Consequently, cash crop production in the Kieta subdistrict, especially in North Nasioi, Guava and South Nasioi census divisions, has hardly expanded at all over the past three to four years (Scott 1973; also see Tables 1.5 and 1.6). In Buin subdistrict, on the other hand, except in Siwai census division where the planting rate of cocoa had almost been stabilized by 1972 (Ward 1975), there is definitely a trend of sizeable increase in planting rates of cocoa and this was being maintained at the time of the present investigation.

Table 2.4

Annual rate of new plantings of cash crops*, 1970-71

Cash crops	Kieta subdistrict (per cent)	Buin subdistrict (per cent)
Cocoa	0.68	7.20
Copra	0.08	0.09

* Based on cash crop census of the sample households.

According to DASF (Kieta), in 1970-71 the increase in cocoa production in Buin subdistrict was 28 per cent over 1969-70 and the rate of new plantings of cocoa was 10 per cent per year. At the time of my investigation during 1974, the sample households of Buin subdistrict were found to maintain an annual rate as high as 7.2 per cent for new plantings of cocoa over 1970-71. The increase of new coconut plantings in the Buin subdistrict was obviously very small and perhaps a large part of it was involuntary. On the other hand, compared with 6 per cent and 0.4 per cent rates of new plantings of cocoa and coconuts respectively during 1972-73 in Kieta subdistrict,³ the sample households have shown a

³ These are figures obtained from the files of the DASF office at Kieta.

very marked decline in new plantings of cash crops. How much of this decline is due to shortage of labour or shortage of land is difficult to ascertain. However, it is evident that, except in Siwai census division where there is a high population concentration, shortage of land is no constraint on expansion of cash crop planting in Buin subdistrict as it is in some villages of the Kieta subdistrict.

A number of factors are responsible for expansion of cash crop production in Bougainville. The effects of the development of the copper mine on the expansion of cash cropping were not all negative; cash crop production also received stimulus from increased access to markets and ports provided by the trans-island road and by the creation or upgrading of other feeder roads. Also a significant amount of money saved whilst on wage-employment seems to come back to the village and to be expended on clearing land and planting more cash crops. Still another factor which greatly increased indigenous interest in cash crop production during the investigation was the unexpected boom in the world market price for cocoa and copra.⁴ There are also social factors such as the desire for economic security for one's children and sometimes a wish to establish a right in hitherto unclaimed or disputed land, and these enhance the interest in new plantings of cash crops.

Having described the extent and interest in expansion of cash crop production among the indigenous villagers, let us now examine how they organize this cash crop production.

The number of cash crop holdings in non-contiguous blocks among the households under investigation was more in Kieta subdistrict than in Buin subdistrict. The majority of the Buin households had one or two holdings and very few had three holdings. In the Kieta subdistrict the majority of the households had two or three non-contiguous holdings and a few (6 per cent) had as many as four or five. As a

⁴ According to the figures given by Papua New Guinea Bureau of Statistics (*Abstract of Statistics*, Sept. 1974, Papua New Guinea Bureau of Statistics, Waigani, Port Moresby), taking the March figure of the export price, the cocoa price was almost doubled (\$1275/tonne) in 1974 as compared to the price in 1973, and similarly the copra price almost trebled in 1974 (\$341/tonne) over the corresponding price in March 1973.

result, the travelling time from house to cash crop holdings in order to carry out maintenance operations and harvesting was more in the Kieta villages than in the Buin villages; the distances of the cash crop holdings from the house ranged from 12 minutes to just over two hours in the Kieta villages as against 10 minutes to one hour in the Buin villages. In Buin subdistrict very little cocoa was interplanted with coconuts, largely because climate and soil do not favour coconut growing; none of the sample households in Buin subdistrict was found to be deliberately growing cocoa interplanted with coconuts. On the other hand, of the 64 cocoa growers in the sample households of Kieta subdistrict, 36 grew cocoa interplanted with coconuts.

Unlike coconuts which do not require shade, for cocoa the land must be cleared, and a leguminous tree or coconuts planted to provide quick growing shade for the cocoa seedlings. Again, maintenance operations (limited mainly to occasional cutting of weed growth and replanting where required) seem to be done more regularly for cocoa than for coconuts. In some cases even some occasional pest and disease control operations were also reported in cocoa groves. There are some differences in the harvesting and processing operations. For copra the fallen nuts are first collected and brought to the village near the drier; when accumulated in sufficient quantity the nuts are husked and the green copra cut out; it is then placed in the drier. The dried copra is bagged and sewn with twine and transported to selling points. On the other hand Ward (1975:42) has described cocoa harvesting and processing as follows:

[It] consists of collecting the ripe pods and stripping the beans from them. The 'wet bean' must then be fermented for several days and eventually dried in a hot air drier, fired by wood or oil fuel to a controlled moisture content. These processes take place at fermentaries located either at the main co-operative purchasing centres or in small subsidiary fermentaries at village locations. The dry bean is then put into bags of about 64 kg weight and is ready for shipment.

While copra processing is done by the indigenous growers themselves at their own individually or community owned

driers,⁵ only 24 per cent of the sample households growing cocoa were found to process their wet beans by themselves at individually or community owned fermentaries located in the villages; the rest of the growers sell it as wet beans to the co-operative society which has the processing facilities.

In Buin subdistrict a large majority of the cash crop growers sell their produce, particularly cocoa, through three major producers' co-operative societies, namely Bana Producers' Co-operative Ltd, operating at Beretemba in the Nagovisi census division, Siwai Co-operative Producers' Society Ltd, operating at Konga in Siwai census division and the Buin Producers' Co-operative Ltd, operating at Buin town.⁶ In 1970-71, for example, as much as 95 per cent of the cocoa and 35 per cent of copra in Buin subdistrict were sold through these co-operatives. However, proportions of cash crop produce sold through co-operative societies have since declined progressively to the extent that in 1973-74 (until March 1974) only 61 per cent of cocoa and 21 per cent of copra respectively were sold in Buin subdistrict through the co-operatives. Concomitantly, proportions of the cash crop produce sold in Buin subdistrict through the traders have been increasing considerably over the years: 35 per cent of cocoa in 1973-74 as against only 3 per cent in 1970-71 and 44 per cent of copra in 1973-74 as against 29 per cent in 1970-71.

A similar trend is observed in Kieta subdistrict in relation to cocoa sales by the indigenous growers. There are four major co-operative societies in Kieta subdistrict dealing with the sale of cash crop products, namely, Dakenatu Producers' Co-operative Ltd, North Nasioi Producers' Co-operative Ltd, Darumai Trading Co-operative Ltd, and Wakumai Marketing Co-operative Ltd. In 1970-71, as much as 55 per cent of the cocoa produce in Kieta subdistrict was sold through these co-operative societies, but this was reduced to 38 per cent in 1973-74, while the proportion sold

⁵ There were 34 hot air driers in the Bougainville district in June 1972 (DASF, Kieta). Since co-operative societies do not usually have copra driers, processing is done individually and locally.

⁶ Proportions of cash crop produce sold by different categories of sellers (e.g. co-operative, trader, individual and planters) are shown earlier in Tables 1.6 and 1.6.

by the traders in the corresponding period increased from 7 per cent to 10 per cent. Copra in Kieta subdistrict, however, is mostly sold directly by the individual growers with a small proportion through the traders. By 1973-74, the trader group was almost eliminated to the extent that the proportion of cocoa produce sold by the traders in 1973-74 had been reduced to 4 per cent of the total copra production in Kieta subdistrict, having been as high as 14 per cent in 1970-71. On the other hand, during the same period, the proportion of copra sold directly by the individual growers was increased from only 11 per cent in 1970-71 to as much as 48 per cent in 1973-74.

The foregoing analysis indicates the gradual decline of the share of the co-operatives in marketing cash crop produce, particularly cocoa, with concomitant increase in the share of business of the traders and direct selling by the individual growers. Perhaps the decline of their share in business may be explained by lack of management and efficiency. These co-operatives were organized in response to the expansion of cash crop production, native pride in large-scale *bisnis* organization and the limitation of road facilities to the main selling point (Kieta port). With the increase in knowledge of cash crop production and marketing, and with the increase in transport facilities due to developed road communications, it has become easy for the private traders and individual growers to organize marketing of the produce. This is clearly evident from the fact that the individual cash crop sales at the Kieta port of inspection by traders and individual indigenous growers have increased enormously during the past four years (see Appendix 2.2).⁷ All categories of sellers increased the number of their individual transactions in copra and cocoa during 1973-74, except for copra transactions by traders and co-operatives of Kieta subdistrict.

A four weeks' survey⁸ of activity patterns of 20 adult male respondents each from the cash crop growing sample households of Kieta and Buin subdistricts revealed that on an average an adult man of Kieta subdistrict expended about

⁷ Individual transactions referred to are for sale of copra and cocoa at Kieta port of inspection (see Tables 1.5 and 1.6).

⁸ The survey was conducted following the method used in an earlier study (Moulik 1973:113-4).

Table 2.5

Labour expended per adult man on cash cropping,
and household income from sale of cash crops

	Kieta subdistrict	Buin subdistrict
Average number of hours per week spent on maintenance of cash crops*	2.05	2.50
Average number of hours per week spent on harvesting and processing cash crops**	1.95	1.55
Average number of hours per week spent on bagging and marketing ***	0.60	0.65
Average number of hours per week spent on cash crop related activities†	4.60	5.70
Total cash income for all the sample households from cash crops++ (\$ per month)	4,045.12	5,514.50
Cash income per household from cash crops (\$ per month)	17.98	24.19
Cash income per consumption unit of household (\$ per month)+++	4.28	4.48

* Maintenance means mainly weeding and replanting for mature and immature trees, plus travelling time.

** Includes travelling time to and from cash crop holdings.

*** Includes travelling time to selling point.

† Includes maintenance, harvesting, processing, bagging and marketing only.

++ Total cash income for all the sample households from Kieta (n=225) and Buin (n=228) subdistricts.

+++ Calculated on the basis of average number of consumption units of 4.2 for Kieta households and 5.4 for Buin households.

4.6 hours of labour time per week on cash crop related activities as compared to 5.7 hours spent by an adult man of Buin subdistrict. However, this did not include the time spent by adult men in establishing a new cash crop plot, except replanting wherever required in the already established plot. It should be noted here that the activities related to cash crops are mainly the responsibility of the adult men in the household, although women and children also expend some labour time at it, particularly harvesting and processing. This is unlike the practice followed in subsistence gardens which are almost exclusively the responsibility of the women of the household, except in the initial stages of establishment when men generally clear the land, make fences, etc. A Kieta household earns about \$17.98 per month from the sale of cash crops as compared to \$24.19 per month by a Buin household.

It is during the initial establishment of a new cash crop plot and during the peak harvesting periods or flushes (May-June and September for cocoa) that the labour requirement is very high. Particularly, during the flush, one has to mobilize labour quickly in order to minimize the waste or loss. On the other hand, the establishment of a cash crop plot is postponable in the sense that a farmer can wait until he can mobilize his labour requirements. However, both in the establishment stage and in the 'flush' season, most of the grower households of the Kieta and Buin subdistricts face problems of acute labour shortage. In fact, many of the sample households, particularly in Buin subdistrict, have reportedly refrained from expanding cash crop plots simply because of the labour constraints which they are already experiencing in maintaining and harvesting the existing plantings. At present, the village households attempt to solve this problem in three major ways: (1) by having the wage-employed and student family members, living away from home, time their visit home on leave during the 'flush' season or at the time of establishing new cash crop plots; (2) by hiring available labour on a daily basis (within or outside the village) for which the wage-employed members of the family remit money from savings; and (3) by making an informal community arrangement on an obligatory reciprocal basis for a few days, the labour thus engaged being provided with food and drinks by the owner household during the work period. The third alternative seems to fit into the cultural traditions of Bougainville fairly well, except that there are two major problems associated with it. Firstly, it often so happens that all the growers in a

community need the harvesting to be done at almost the same time. Secondly, a community which is relatively free at a specified time is not always available in a nearby area, and even if it is available there needs to be a strong bond of favourable and reciprocal inter-community or inter-village relationship in order to make the kind of arrangement envisaged here. In some instances such informal arrangements could not be worked out simply because the contracting households did not belong to the same denomination of Christianity.

As Ward (1975) pointed out in relation to the cocoa growers of Southwest Bougainville, it was not clear whether the labour problems discussed above reflected an absolute shortage of labour or an assessment by cocoa growers that increased expenditure of time was not worthwhile compared with the alternative of allocating time to leisure or other pursuits. Perhaps both propositions are partly true. But one thing is clear - the cash crop growers of both Kieta and Buin subdistricts often do experience difficulty in mobilizing the required labour resources for establishing new cash crop plots and during the peak harvest time.

Wage employment

For Bougainvillians wage employment as a source of cash income is not a new experience. But so far as the quality and content, intensity and involvement in wage employment are concerned, there has been a marked change over the past few years. As has happened elsewhere in colonial history, the indigenous people of Bougainville had their first taste of wage employment through the indenture system. Oliver (1973:83) reported:

By the end of 1914, when a small Australian force landed at Kieta and ended German rule there, large numbers of Bougainvillians were employed on plantations, both locally and in the Bismarck Archipelago. 'Buka boys', as they were generally known and as which they were easily identified by their darker skin colour, had become favourably known for their industriousness and what seemed to be eagerness to learn new skills. But exactly how many were so engaged and what proportion of them worked away from home overseas is not recorded.

Late in the same book, Oliver (1973:108) gave some indications of the total number of Bougainvillians working under indenture:

Some islanders were employed as casual labourers, but by far the largest proportion worked under indenture, principally as unskilled labourers on plantations. In 1939, for example, there were about 3400 working under indenture; about 2500 worked on Bougainville-Buka itself, and the remainder elsewhere in the Territory.

Initially, since Buka island and the coastal areas immediately north and south of Kieta could be brought under administrative control with relative ease, labour recruitment under the indenture system was more brisk in these areas than in the Buin areas. The populous Buin plains remained uncontrolled for a long time owing to intense intertribal warfare. Eventually, however, the greater Buin plain was also brought under control and more and more labourers from Buin areas were being recruited for plantations in the British Solomon Islands. On the other hand, factors like access to employment-giving centres, spread of education, population pressure and cash crop potentials also affected the response of Bougainvillians to employment opportunities. The initial advantage of European contact and its consequent spill-over effects, however, seem to be carried over, and have created some regional variations in the characteristics of the Bougainvillian work-force of the present time. As Bedford and Mamak (1975) observed about the Bougainvillian workforce in BCP:

Those from the Buka subdistrict tend to have higher levels of education, are employed in more skilled occupations, and consequently receive higher wages than those from the Buin and Kieta subdistricts. ... the most stable group of Bougainvillians in BCP's workforce are those from Buka. Over three-quarters of those who started work between January 1970 and December 1973 were still working for the company at the end of the latter month. For Bougainvillians from Buin and Kieta the relevant proportions are much lower - just over 50 per cent in both cases.

We will discuss the regional variations in the response pattern of the Bougainvillians towards employment opportunities later. For the present it must be recorded that, 'because mission education was relatively well developed in Bougainville compared to some other areas of the country, it appears that there is a relatively larger number of Bougainvillians with higher levels of skills and educational attainments than ... from some other areas; and they are in demand throughout the country' (Ward 1975:93). But before this could happen, work in copra and cocoa plantations of the southeast coast of Bougainville or those in the Gazelle Peninsula offered the principal wage employment opportunity. To the plantation work is slowly added the opportunities to work in shipping services, administration, missions, other private enterprise and lastly BCP and other related subsidiary industries connected with the mining development.

As until recently there have been no potential cash crops that could be grown commercially by the indigenous people of the Buin subdistrict and as the region suffered from a relatively high population pressure (particularly in Siwai census division) and poor accessibility, even in the past more Buin villagers seemed to seek wage employment and migrate than did Kieta villagers. This is clearly borne out by the data on past wage employment experience of the sample respondents.

In Buin subdistrict, a little less than 80 per cent of the sample respondents were reported to have some wage-employment experience in the past, while in Kieta subdistrict the comparable figure was only 44.3 per cent. Among those who had past experience in wage employment, a significantly larger proportion of Buin respondents took up employment out of Bougainville district, and they were employed for a longer period of time and in more skilled jobs than Kieta respondents. It is interesting that almost equal proportions of the respondents from Kieta and Buin subdistricts had employment experience in BCP and its subsidiary enterprises. Buin subdistrict has consistently provided the greatest numbers of employees to BCP and approximately 10 per cent of the adult male population of this area were employed by BCP during the four-year period 1970 to 1973, compared to about 8 per cent from Kieta subdistrict (Bedford and Mamak 1975).

Let us now look into the existing wage employment status of the villages under investigation. The available information on numbers of indigenous people absent from the study villages

Table 2.6

Past wage employment experience of sample respondents (per cent)I. Place of employment

Subdistrict	Only in Bougainville district	Only outside Bougainville district	Both in and out of Bougainville district	BCP*	No wage employment experience at all
Buin (n=228)	47.5	10.0	4.1	16.3	22.1
Kieta (n=225)	21.3	..	6.3	16.7	55.7

II. Length of employment experience

Subdistrict	Up to 2 years	2-5 years	5-10 years	Over 10 years
Buin (n=178)	23.4	24.5	29.8	22.3
Kieta (n=125)	46.8	28.5	14.3	10.4

III. Type of employment experience

Subdistrict	Skilled or semiskilled**	Unskilled	Both skilled and unskilled***
Buin (n=178)	58.7	29.3	12.0
Kieta (n=125)	34.4	53.8	11.8

* Employment in BCP includes employment in subsidiary industries or organizations related to copper mine development.

** Classifications of employment into skilled and unskilled do not follow the standard ILO classification. Here unskilled means general manual labourer, while skilled and semiskilled include tradesmen, technicians, carpenters, drivers, clerical job, professionals such as doctors, teachers, surveyors, mechanics, pilots, engineers, military and police service, supervisory jobs including security, welfare, etc.

*** These are the people who first took up wage employment as unskilled labourer and over the years learnt and developed some skills on the job and were then promoted within the same organization or changed to another organization as a skilled employee.

at the time of investigation is given in Tables 1.8 and 1.9. In ten villages of Kieta subdistrict 14.2 per cent of the adult males of the total adult village population were absent as compared to 12.3 per cent in the villages of Buin subdistrict. All these adult male absentee workers did not, however, belong to the sample households under investigation. In Kieta subdistrict, for example, about 75 per cent of the total male absentees (n=63) were covered by only about 17 per cent of the sample households (n=225). In Buin subdistrict on the other hand only about 57 per cent of the total adult male absentees (n=123) were covered by about 23 per cent of the sample households (n=228). In other words, as high as 83 per cent of the sample households in Kieta subdistrict did not have any absentee adult male worker in the family while in Buin subdistrict the comparable figure was about 77 per cent.

It should be noted here that the absentee adult males also include those who commute daily to their workplaces from the villages. In fact, an overwhelmingly large proportion of the absentee adult males in the Kieta sample households was employed within Bougainville district, mostly in Panguna/Arawa/Kieta areas. Consequently most of these wage-employed adult males were found to commute from their respective villages. In Buin subdistrict, on the other hand, the pattern is strikingly different. About 2.5 times more adult male absentees of the Buin households than their counterparts in Kieta were reported to be employed outside the Bougainville district. Among those employed within Bougainville district, a negligible number of absentee adult males of the Buin households were able to commute to their workplaces from their respective villages as compared to an overwhelming majority of the commuters in the Kieta households. In other words, while most of the adult males of Buin subdistrict had to migrate from their home villages in order to earn cash income through wage employment even within Bougainville district, very few in Kieta subdistrict had to do so. This advantage of commuting facility obviously had a direct bearing on the flow of cash income into the total cash income of the households. Thus, in spite of the fact that more adult males were wage-employed among the Buin households than among the Kieta households and also the fact that a larger proportion of the wage-employed adult males in Buin subdistrict were in comparatively higher-paid skilled jobs than in Kieta subdistrict, cash income from wages and remittances per household was higher for the Kieta households than for the Buin households. To maintain a

Table 2.7

Wage employment and cash income of the sample households
 (n=225 for Kieta, n=228 for Buin)

	Kieta subdistrict	Buin subdistrict
Per cent of sample households with wage-employed member	16.9	23.2
Per cent of total absentee adult male workers of the sample villages belonging to the sample households*	74.6	56.9
Per cent of absentee adult male workers of the sample households employed within the Bougainville district	89.3	73.2
Per cent of absentee adult male workers of the sample households employed in BCP**	42.6	55.7
Per cent of absentee adult male workers of the sample household commuting to work places from villages	87.0	4.9
Total monthly cash income from wages and remittances for the sample households	\$1650.80	\$1020.00
Average monthly cash income per household from wages and remittances	\$7.34	\$4.47

* Absentee adult male workers include also those who commute to work places daily, but live in their village homes. As suggested by the respondents, so far as the household work is concerned, the commuters resemble conventional absentees in their share of labour expended on household activities, including cash cropping.

** Wage employed in BCP includes also those who are employed in the subsidiary and ancilliary industries and organizations related to mine development. There is a number of such industries operating in the area.

second establishment at the work place of a Buin adult male, even if single, cuts the available share of his cash income to his family. A Kieta adult male, on the other hand, saves the cost of maintaining a second establishment at his work place by commuting from his village, making it possible for his village household to share all his wage-income. Whether the commuter does allow his village household to share his wage income is a different matter - the possibility is there. Similarly, the commuters from the Kieta households have the advantage of helping in the household work and in cash cropping or gardening during short holidays. The non-commuters cannot do this unless they take long leave from their work once or twice in a year, as most of the migrant Buin workers do.

BCP and its related subsidiary organizations still provide the largest source of wage employment. A large majority of the adult male workers of the village households under investigation was employed in BCP and its subsidiary organizations, more among the Buin workers than among the Kieta workers. In fact, during the construction phase of the mine there was hardly any household in some of the villages around the mine in the Kieta subdistrict (for example in the study villages of Guava, Pakia, Kuka) that did not have at least one member of the household who worked for BCP in some capacity or the other for a time. Some of the villages in the Siwai census division of Buin subdistrict were likewise affected. However, as the construction phase of the mine ended, the BCP work-force was reduced and many Bougainvillians along with other Papua New Guineans had to return to their villages. This general cut in the construction work-force is one of the reasons for the reduction in numbers of adult male Bougainvillians employed presently in BCP. There are other reasons also. The development of the copper mine and its concomitant effects have created, particularly among some Kieta villagers, antagonistic, or at least ambivalent feelings towards BCP.⁹ As a result, some Bougainvillian villagers seem deliberately to avoid employment in BCP and seek alternative opportunities. Since the scope for alternative employment widened, partly as a result of the mining development, the choice of wage employment has been wider and relatively easier. Apart from BCP, 'work in government, for the missions and for private employers ... occupies more of the absentees than does plantation labour at the present time' (Ward 1975:93). In fact, one can hardly

⁹ This aspect will be discussed fully later in this book.

find a Bougainvillian now as a labourer in the plantations. Similarly, no Bougainvillian can be found working as *haus boi* or cook or as a casual labourer in the private homes of the expatriates who usually employ such people.

There seem to be strong preferences for certain kinds of jobs among the Bougainvillians.¹⁰ Quoting a patrol report¹¹ Ward (1975:93) listed the occupations of people absent from Siwai in 1970-71, indicating the wide variety of jobs which absentees are filling: teacher, nurse, clerk, agricultural assistant, surveyor, maternity and child health nurse, co-operative officer, welfare assistant, radio announcer, medical assistant, aidpost orderly, Pacific Islands Regiment, Royal Papua and New Guinea Constabulary, catechist, nun, Marist brother, minister, pastor, driver, mechanic, sawmill employee, electrician, plant operator, mess assistant, stevedore, storekeeper, carpenter, painter, cook, casual labourer.

If one watches village occupancy of the Kieta and Buin subdistrict, a considerable coming and going is evident. Men frequently return home for a month or maybe for a few months from their workplaces, clean up their cash crop plantation, harvest, possibly plant a bit more area and then return to work for wages. The usual explanation given for keeping the plantation going is that it is for the children. This brings us to one more important factor affecting the interest of the Bougainville villagers for wage employment, namely, the prospect of cash cropping and the high world market prices at the time of my investigation. This was particularly true for the Buin villagers. On the one hand, the response of the Buin people to employment opportunities has increased with improved access to the mine site following completion of the trans-island road in 1972 and the consequent increased ease of movement for absent workers. The same road, on the other hand, also made it easier to market agricultural produce, so creating a 'pull back' effect on those seeking wage employment. As Bedford and Mamak (1975) observed regarding employment of the Buin people in BCP,

a major drop in their proportion of the total number of Bougainvillians commencing work in 1973 indicates

¹⁰ Job preferences of the Bougainvillians will be discussed fully in the next chapter.

¹¹ Konga PR No.1 of 1970-71.

that the response to wage employment from this part of Bougainville may be closely tied to participation in cash cropping. During 1973 the price for cocoa, the major cash crop in the Buin sub-district, rose sharply. Perhaps as a result of favourable prices for cocoa, interest in cash cropping increased and there has consequently been a decline in the number of people from Buin seeking work with the company.

However, there still remains a considerable interest in wage employment among these villagers, especially among the educated young people, for wage employment means a steady income and cash flow to the household which can be utilized effectively for cash cropping and for other household needs. As well they are attracted by the adventure, the 'bright lights' of towns and the related socio-economic benefits.

The decline of interest in wage employment among the Bougainvillians, particularly in Kieta subdistrict, is the result of another important factor. Again Bedford and Mamak (1975) rightly suggested:

A gradual decline in the proportion of workers from the Kieta sub-district reflects, among other things, greater awareness of alternative opportunities for involvement in the urban economy: an awareness which arises in large measure from proximity to the towns ... Opportunities to gain a cash income through selling garden foods in the towns and operating business have increased for this group in particular. Administration and company policies have encouraged Bougainvillians from the Guava and North Nasioi areas to participate in commercial and transport sectors of the urban economy. Compensation payments to people living near the mine and along the east coast access road have provided much of the necessary capital for investment in different forms of entrepreneurial activity.

Other economic activities

Apart from the three main economic activities described above, there are some minor supplementary cash earning activities in the Bougainville villages. Cattle have recently been introduced. In 1972 there were estimated to be 351 cattle in Buin subdistrict and 220 in Kieta subdistrict. These beasts were Brahmin or Brahmin cross

Table 2.8

Cattle population in the subdistricts in 1971-72

	Female	Male	Calves	Steers	Total
Kieta	119	23	58	20	220
Buin	249	38	53	-	340
Total	368	61	111	20	560

Source: DASF, Kieta.

costing about \$100-120 each. Of the total cattle population in the two subdistricts, only 315 (about 57 per cent) were owned by the indigenous Bougainvillians in 39 small scale cattle enterprises run by individuals or groups of individuals. Most of these, 30 out of 39, were located in the Buin sub-district. However, none were located in the study villages. Initially many Bougainville villages had shown great enthusiasm for starting large scale cattle projects on a co-operative basis. It was felt both by the government and the mission that they were over-ambitious in their enthusiasm and expectations and therefore small-scale cattle enterprises run by individuals or groups of individuals were encouraged.

There are a number of critical problems in starting a cattle project. Firstly, most of the indigenous cattle projects were financed by Development Bank loans of \$1500-\$2500; the specified bank requirements for such loans included the provision of 40 acres of land, at least half of which had to be under grass, and good water, fencing and yards were required before the cattle were delivered. It is difficult to meet these requirements in the Bougainville village situation. Secondly, the indigenous cattle farmers are almost completely dependent on the knowledge and interest of government departments for technical advice. Even under these difficulties, DASF arranged to import 100 more cattle for Bougainville district in September 1972, and this is estimated to give a turn-off of 600 beasts in 1977-78. In spite of genuine enthusiasm and interest on the part of some of the sample households it was not possible for them to start cattle projects owing to the

above-mentioned limitations.

The trade store was one of the first modern '*bisnis*' enterprises in which the indigenous people of Papua New Guinea became interested and they adopted it. But very rarely are these indigenous trade stores run on western-style commercial lines (see Moulik 1973:88-90). There seem to be a mixture of motives behind starting an indigenous trade store. Increasing demands for varieties of modern goods which can only be satisfied by cash and the generation of cash income through cash cropping and wage employment have provided the opportunity for establishing retail stores at the local village level. Since the towns and market centres are few and far between and because from many inland areas these towns and market centres are almost inaccessible, local retail trade stores have commercial potentialities for aspiring individuals. On the other hand, the initial capital needed for establishing a retail store to meet local village demand is relatively low, and is at least within the reach of a group of individuals if not for one single individual. But this is not the full story. The Papua New Guineans saw such opportunities not only as sources of profit but as sources of other socio-psychological and political satisfaction also. Many indigenous trade stores are symbols and manifestations of nationalism, in that they prove the villagers' capability in organizing '*bisnis*' as the 'whiteman' does; they provide services to their own people; and they enrich their own communities instead of other communities or races. Many co-operative trade stores were established initially for this last reason. Trade stores also serve as a ladder to climb in social prestige in the community and to gain leadership status, especially by providing trade goods to clan or community members, whether as gifts or on credit, following traditional reciprocal exchange systems. In fact, where many big co-operatives were established in Papua New Guinea, the pecuniary motives were often quite secondary to the social goals.

Whatever the motive for starting a trade store, it is still one of the most coveted possessions among the indigenous people. Consequently, there has been a spectacular growth of indigenous trade stores of varying sizes and levels of efficiency. In Kieta and Buin subdistricts, for example, there were about 322 trade stores serving about 108 people per trade store (see Table 1.1). Trade stores are more numerous in Buin subdistrict, especially in Buin Local Government Council area, than in Kieta subdistrict.

Ward (1975:78) reported:

Trade stores are most numerous in the Buin Local Government Council area where there are very few villages without at least one store, even in the most inaccessible inland areas. Most villages in Siwai Local Government Council area also have at least one store or if not they are all, except Iru village, within a short distance of villages which do.

Ward (ibid.) also reported that Kanauro village in Paubakei census division of Buin subdistrict had eight trade stores for a population of 255.

There were as many as sixteen indigenously owned trade stores in the study villages of Buin subdistrict and only six in the study villages of Kieta subdistrict.

Table 2.9

Trade stores, population and monthly sale
in the study villages, 1974

	No. of trade stores	Total village population*	People/ trade store	Average stock value \$A	Average monthly sale \$A**
Kieta	6	880	147	183	13.82
Buin	16	1952	122	121	15.60

* Cf. Table 1.1.

** Based on three months' survey.

There seemed to be a decline in interest for starting trade stores among the Kieta villagers about which Ward was reporting owing to a conspicuous loss of customers to the larger stores or to the new more readily accessible super-markets and stores in Panguna, Arawa and Kieta (Ward 1975:82). Most of these local village trade stores were operated from household premises; no special storage provision or buildings were constructed for the trade stores; there was

no regular accounting practised nor were all of them operated on a regular scheduled time basis. While most of the trade stores of the Buin villages were supplied by one or other of the two wholesalers' co-operatives, Telei Co-operative Consumers Ltd (Buin) and Motuna Wholesale Co-operative Ltd (Siwai), most of the Kieta trade store owners were reported to indent direct from suppliers in Kieta. The value of stocks at any one time varied widely between the stores, from less than \$30 to over \$1,000. Similarly, average monthly sales also varied widely between the stores. The margin of profit on different items for sale in the trade stores ranged from 1 to 15 per cent. Interestingly, not many credit sales were reported by these trade stores. During 1970-74 as much as 10 per cent of the total amount of Development Bank loan advanced in the Buin subdistrict was on account of trade stores as against only 2 per cent in the Kieta subdistrict (see Table 1.7).

A handicraft industry of the commonly known 'Buka' baskets made out of a plant of the *Lygodium* genus is of continuing minor importance in Buin subdistrict. These baskets are mostly made in Siwai and the area near Buin. The 'Buka' baskets have a wide market both within and outside Bougainville district, particularly among the relatively wealthy Europeans. In the early seventies the influx of wealthy European tourists resulted in an inordinate rise in prices of various kinds of 'Buka' baskets and also a conspicuous deterioration in quality due to large-scale production. The Buin and Siwai producers' co-operative societies handled most of the sales. At the time of the present investigation, the co-operative societies seemed to have lost interest in the sale of baskets. The interested buyers seemed to prefer to buy directly from the villagers at a cheaper price. As a result the co-operatives almost stopped buying baskets from the villagers. On the other hand, many private expatriate dealers have started business with 'Buka' baskets and other Bougainvillian handicrafts. There is, however, no handicraft industry of any importance in the Kieta villages.

Apart from these minor cash earning economic activities, the Bougainvillians are engaged in a number of supplementary cash earning enterprises. Mention has already been made of the producers', consumers' retail and wholesale co-operative societies in the two subdistricts. There is hardly any village household in the Kieta and Buin subdistricts which does not have a shareholder in one or other of the co-operative societies. In the Buin and Siwai Producers'

Co-operatives, for example, there were more than a thousand indigenous shareholders at the time of my investigation.¹² Also, as mentioned earlier, a number of individual and group enterprises have been actively encouraged by the administration as well as by the Local Enterprise branch of BCP. With this active encouragement and help, individual Bougainvillians established six building contractors' businesses and five transport businesses. Then there are some operating public enterprises with shareholding by the Bougainvillians, such as Pikanova Holdings,¹³ Navitu Enterprises Pty Ltd,¹⁴ Aronava Squash Courts Pty Ltd,¹⁵

¹² Until June 1972 there were 1,100 shareholders in the Buin Producers' Co-operative Ltd, and 976 shareholders in the Siwai Producers' Co-operative Ltd.

¹³ This is a public company conducting a transport and waste disposal business at Arawa, leasing and developing land in Arawa (not yet in operation) and doing construction work. This is one of the first big indigenous business enterprises, most of which are assisted by BCP. PNG Development Bank also lent \$20,800 for starting lease and land development work in Arawa.

¹⁴ This is the enterprise which was established with much popular enthusiasm during the political and social turmoil created during the initial mining development. It has a large shareholding from the Kieta area. It had a number of business activities such as petrol pump station, transport, newspaper and book shop. It is also identified with certain political views and with an expatriate political figure who manages it. Recently, however, both its political influence in the area and its business have been considerably reduced.

¹⁵ This is a proprietary company of the Bougainvillians doing business in hiring squash courts at Arawa, and hire and sale of squash equipment. It started on 10 September 1973 with a capital contribution of \$5,000 and a sum of \$91,000 was advanced by the PNG Development Bank for establishing the squash court. Weekly turnover to Nov. 1973 was reported to be \$811.

Nakanaro Enterprises,¹⁶ Guava Holdings Pty Ltd,¹⁷ Bougainville News,¹⁸ and Makotuko Enterprises.¹⁹ Apart from these operating enterprises there are a number which are still at proposal planning stage or under active consideration.²⁰ However, most of these enterprises, particularly all the presently operating ones, are located in the Panguna/Arawa/Kieta area with a large majority of shareholding members from Kieta subdistrict.

One great opportunity offered by BCP to the Bougainvillian villagers is the prospect of investment in the shareholdings of BCP. It is surprising to observe a very low response from individual Bougainvillian villagers in availing themselves of this opportunity. Given the price boom of cocoa and copra, the amount of compensation being paid to the local villagers and BCP's record \$158 million profit for

¹⁶ This is a partnership of a family group of local Bougainvillians. It started operating on 2 Oct. 1973 at Arawa adjacent to the squash court. Its main activity is sale of fish and chips. The total capital contribution for this enterprise was \$5,454 and \$35,000 was given as loan by the PNG Development Bank for establishing the business. Its weekly turnover to 4 Dec. 1973 was reported to be \$1,021.

¹⁷ This is a public company with shareholdings by the local people of Bougainville. Assistance was provided mostly by the local enterprise branch of BCP. During the last phase of the present investigation, it started a taxi service between Panguna and Kieta airport with 12 Ford cars. No further information on this enterprise was available at the time of writing.

¹⁸ This is a public company with shareholding by Bougainvillians. It is located at Arawa and started operating on 1 Aug. 1973. The main activity is sale of newspapers, stationery, periodicals, etc. PNG Development Bank gave a loan of \$29,000. Its weekly turnover to 25 Sept. 1973 was reported to be \$1,440.

¹⁹ This is a partnership of an expatriate and an indigenous Bougainvillian with capital contribution of \$5,320. Its main activity is a retail trade store with annual turnover of approximately \$27,500.

²⁰ Pakia village, for example, was negotiating with BCP to take over the business of the movie theatre operation at Panguna.

1973, one would expect that more and more individual Bougainvillians would be inclined to invest savings in BCP shares. In fact, however, among the study households only seven from Kieta and eleven from Buin were reported to have BCP shares and these were of low value. On the other hand, a relatively large amount has been invested in BCP shares by the co-operatives and associations representing indigenous villagers. There were, for example, 15,000 BCP shares representing councils, associations and societies in south Bougainville. Most of these investments in BCP shares are the result of active persuasion and advice by the concerned administration departments and expatriate advisers rather than voluntary. As observed by Epstein (1970:60):

Indigenes on the whole do not seem to be very keen on putting their savings into shareholdings of large companies, though this may prove a profitable investment; they either want to keep their cash as savings or otherwise convert it into real assets which they can see with their own eyes.

In addition to this general reluctance to invest in shareholdings, the initial antagonism against BCP is perhaps another factor. A similar reluctance could be observed among Bougainvillians towards putting their money into savings bank accounts, although these are slowly gaining popularity where banking facilities are available in the area. Particularly among the wage-employed Bougainvillians in the Panguna/Arawa/Kieta area, the indigenous entrepreneurs and some cash croppers in the villages, opening a savings bank account is felt to be advantageous.

From all these supplementary economic activities, an average \$1.36 per month accrued to Kieta households of the study villages compared to an average of \$1.18 per Buin household.

Cash income and expenditure

Having described briefly the kinds of economic activities engaged in by the study villages of the Bougainville district, we are now in a position to examine the expenditure pattern of the Bougainvillian villagers *vis-à-vis* their expendable cash income.

Table 2.10

Monthly cash income of sample households

Source of income	Kieta subdistrict (n=225)	Buin subdistrict (n=228)
Sale of cash crops	\$4045.12 (61%)	\$5514.50 (81%)
Sale of garden produce	602.00 (9%)	24.00 (0%)
Wages and remittances	1650.80 (25%)	1020.00 (15%)
Other sources*	306.26 (5%)	269.00 (4%)
Total cash income from all sources**	6604.18	6827.50
Average cash income per household***	29.35	29.94
Average cash income per consumption unit of household+	6.99	5.54

* Other sources mean trade stores, basket and handicrafts sale, shares in co-operatives, BCP shares and other business enterprises.

** Excluding cash income from BCP's compensation payments.

*** Based in sample households, 225 in the Kieta subdistrict and 228 in the Buin subdistrict.

+ Average consumption unit per household is 4.2 for the Kieta sample and 5.4 for the Buin sample.

Excluding the mining company's compensation payments to some of the sample households in the Kieta subdistrict, the sample households of both subdistricts had almost the same average monthly cash incomes per household. But the relative contributions of different sources to the total cash incomes varied between the two subdistricts. However, in both subdistricts the largest single contributor to household cash income was cash crop sales (61 per cent in Kieta and 81 per cent in Buin) followed by wages and remittances (25 per cent in Kieta and 15 per cent in Buin). The contribution of sales of garden produce was negligible for the Buin

households (.4 per cent) while for the Kieta households it contributed as much as 9 per cent of the total household income. Other economic pursuits contributed almost the same amount to the household incomes in the Kieta and Buin sub-districts (5 per cent for Kieta and 4 per cent for Buin).

Given the range of cash incomes what is the expenditure pattern of the village households? As pointed out in an earlier publication (Moulik 1973:78), 'there were two distinct patterns of demands for cash: (i) demands from external agencies such as council tax, school fees, and (ii) internal demand such as day-to-day consumption expenditures, marriage payments, cash needed for setting exchange obligations'.

The first type of cash need was periodic and in most cases occurred once in a year. For example, for an average cash crop grower in the Buin subdistrict (with particular reference to the area covered by the Bana Producers' Co-operative Ltd) there were the following yearly fixed expenditures: \$6.60 as council tax, \$13 as school fees for the child (high school), \$10 membership contribution to the co-operative society, and 20 cents as church contribution.

The most important expenditures were, however, those made on a continuing day-to-day basis, mainly through trade store purchases. As stated earlier, all the study villages were within easy reach of local trade stores. For the Kieta villages, in addition to these local small stores, the services of a supermarket (at Arawa) and a number of departmental stores in the Arawa/Kieta area were within easy reach. The existence of a relatively large number of big stores modelled on western department stores and the conspicuous manifestation of typical consumer culture of the expatriate population had an obvious effect on the expenditure pattern of the Kieta villagers. Mamak, for example, reported that Papua New Guineans living in the towns of Kieta, Arawa and Panguna (employed by BCP or Central Government), bought an average of 88 per cent of the family's food at a supermarket, with the rest at the local market (reported in *Post Courier*, 13 June 1974). He also reported that, on average, 8 per cent of a family's total expenditure was spent on liquor, and families earning below \$2,500 per year had no savings while families earning less than \$2,000 per year were spending more than they made. Although this survey was done exclusively among the wage-employed town dwellers, it gives an indication of the depth and direction of the demonstration

effect of these western-style stores. The daily cash expenditures of twenty study households each from Kieta and Buin subdistricts also showed a conspicuously different pattern between the subdistricts.²¹ The Kieta households were found to spent substantially more on liquor, tinned foods, clothes and dresses, travel and other luxury durable consumer goods such as kitchen utensils, radios, recorders,

Table 2.11

Cash income and expenditure per month

	Kieta subdistrict (4.2)*	Buin subdistrict (5.4)*
No. of households surveyed	20	20
Total cash income	689.60	710.00
Cash income per consumption unit	8.21	6.57
Total cash expenditure	595.73	447.90
Cash expenditure per consumption unit	7.09	4.15
Savings per consumption unit	1.12	2.42

* Average consumption unit in parentheses.

etc. One interesting observation was that the push-bike was a more common means of transport for both the Kieta and Buin households than perhaps it was in any other part of Papua New Guinea. On average a Kieta household was found to spend more than a Buin household. Consequently, a Kieta household had almost half the level of net savings. In

²¹ These were the same households for whom the daily activity patterns were recorded. These households were selected from the three income groups classified by using mean and standard deviation of monthly cash income per consumption unit of the household. Thus daily expenditure patterns were recorded every day for three months.

fact, some of the Kieta households of a lower income group were found to spend more than their cash incomes, while the Buin households irrespective of their cash incomes had some net savings after meeting their daily cash needs. There was, however, a gradual increase in consumption expenditure with an increase in cash income. But the rate of cash expenditure did not rise at the same rate as the income rose. In other words there was no 1:1 relationship between cash income and expenditure in the sense that the level of expenditure seemed to reach a plateau after a certain stage. As a result, the households in the relatively higher income brackets tended to make larger amounts of net savings as compared with those in the lower income brackets.

Table 2.12

Cash income and expenditure per consumption unit
(average \$A per month per household)

Subdistrict	Nominal income (\$A)	Cases (number)	Consumption expenditure (\$A)
Kieta (n=20)	3.57	6	4.68
	7.04	3	7.25
	9.81	5	8.05
	11.02	4	8.00
	14.26	2	9.55
Buin (n=20)	4.43	6	2.43
	5.50	6	3.65
	7.85	4	4.94
	9.12	2	6.35
	11.08	2	7.02

Appendix 2.1

Market surveys

Market		Number of villages sellers came from	Frequency of attending the market by sellers						Cost of transport		Amount of food brought into the market		Amount of food sold in the market	
			Every market day		Often		Not so often		Total (\$)	Average (\$)	Total (\$)	Average (\$)	Total (\$)	Average (\$)
			No.	%	No.	%	No.	%						
KIETA SUBDISTRICT														
Panguna	4.1.74	15	35	100	-	-	-	-	14.00	0.40	82.00	2.34	78.90	2.25
Java River	7.1.74	18	47	98	-	-	1	2	11.90	0.25	161.40	3.36	161.40	3.36
Mabibi	10.1.74	36	32	89	4	11	-	-	6.40	0.18	87.50	2.43	87.50	2.43
Java Java	11.1.74	34	35	100	-	-	-	-	1.50	0.04	113.80	3.25	113.80	3.25
	15.1.74	10	48	100	-	-	-	-	11.40	0.24	108.27	2.25	108.27	2.25
Karoona	18.1.74	19	87	89	-	-	11	11	7.70	0.08	465.27	4.75	215.60	2.20
	25.1.74	17	64	97	-	-	2	3	14.20	0.22	245.50	3.72	145.59	2.21
	31.1.74	16	40	78	5	10	7	12	12.90	0.25	183.00	3.52	101.00	1.94
Arawa	12.12.73	11	47	84	5	9	4	7	8.90	0.16	109.90	1.96	103.20	1.84
	15.12.73	36	86	93	2	2	4	5	16.20	0.18	212.40	2.31	213.70	2.32
	19.12.73	29	58	88	2	3	6	9	17.40	0.26	179.00	2.71	162.60	2.46
	22.12.73	10	28	93	-	-	2	7	6.40	0.21	61.90	2.06	56.40	1.88
Kieta	29.12.73	12	48	83	9	16	1	1	5.20	0.09	136.00	2.34	131.80	2.27
	5.1.74	11	43	83	8	15	1	2	4.90	0.09	138.80	2.67	127.70	2.46
	12.1.74	10	35	73	13	27	-	-	4.70	0.10	154.20	3.21	141.70	3.00
BUIN SUBDISTRICT														
Buin Town	9.1.74	15	29	48	-	-	31	52	-	-	43.80	0.73	40.80	0.68
	12.1.74	3	30	64	-	-	17	36	6.00	0.13	86.10	1.83	86.01	1.83
	19.1.74	3	15	42	-	-	21	58	-	-	31.68	0.88	28.80	0.80
	26.1.74	3	26	44	-	-	33	56	-	-	76.70	1.30	59.00	1.00
	2.2.74	1	15	71	-	-	6	29	-	-	42.21	2.01	41.16	1.96

Appendix 2.2

Individual transactions of sale of copra and cocoa at the Kieta port of
inspection, by different categories of sellers, 1970-71 to 1973-74

Year	Co-operatives		Traders		Individuals		Planters	
	Kieta	Buin	Kieta	Buin	Kieta	Buin	Kieta	Buin
<u>Copra</u>								
25.6.70 to 31.7.71	75	19	108	28	73	17	338	-
1.8.71 to 30.6.72	20	28	98	54	577	84	357	-
1.7.72 to 30.6.73	2	34	76	67	902	41	276	-
1.7.73 to 31.3.74	26	24	62	74	2271	159	302	-
<u>Cocoa</u>								
25.6.70 to 31.7.71	220	59	42	15	2	11	109	2
1.8.71 to 30.6.72	209	56	27	51	7	8	103	9
1.7.72 to 30.6.73	186	115	54	154	29	17	145	10
1.7.73 to 3.3.74	294	188	111	306	40	52	217	12

Appendix 2.3

Household possessions of selected families

Items	Kieta household					Buin household				
	A	B	C	D	E	A	B	C	D	E
1 Axe	1	3	3	1	4	3	4	3	3	1
2 Bush knife	1	3	3	1	6	7	4	2	1	1
3 Grass knife	1	3	2	2	7	2	5	3	4	1
4 Spade	1	2	1	3	3	3	4	1	1	1
5 Hoe	-	-	1	-	-	-	1	-	1	1
6 Fork	-	-	2	-	-	-	1	-	-	-
7 Pocket knife	1	2	3	-	2	1	2	2	1	1
8 Saw	4	2	1	1	1	1	2	3	1	-
9 File	1	1	3	1	2	1	2	1	2	-
10 Hammer	2	1	1	1	2	1	2	2	3	1
11 Adze	-	-	1	-	-	-	-	-	-	-
12 Rule	2	1	3	1	1	1	1	1	2	-
13 Spanner	3	3	-	-	2	2	5	5	10	-
14 Shotgun	-	-	-	-	1	-	-	-	1	-
15 Sack	1	1	1	-	1	2	1	2	2	-
16 Cutlery knife	3	4	8	-	-	-	-	3	-	-
17 Spoon	11	10	22	10	12	7	12	25	25	10
18 Fork	5	5	3	3	2	4	2	12	5	10
19 Saucepans	7	7	7	2	12	5	7	6	5	5
20 Frying pan	1	1	5	1	1	1	1	1	1	2
21 Kettle	1	2	2	1	3	1	1	-	2	2
22 Dish	2	3	3	1	2	1	1	2	3	4
23 Plate	9	12	9	10	13	9	12	12	18	20
24 Cups	10	6	20	10	13	10	14	12	12	10
25 Mug	-	2	5	-	-	-	-	-	1	3
26 Glass	2	2	4	4	3	3	4	1	3	3
27 Needle	1	5	30	-	100	2	4	25	5	3
28 Thread	2	2	4	-	3	1	2	2	1	1
29 Hurricane lamp	2	5	5	2	3	4	2	1	6	5
30 Torch	2	1	15	1	4	-	2	2	2	1
31 Radio	3	1	6	1	2	2	1	1	1	2
32 Clay pot	-	-	1	1	2	1	2	1	1	10
33 Lime gourd	-	-	-	-	-	-	-	-	-	-
34 String bag	-	-	7	1	1	2	4	-	1	1

Appendix 2.3 (continued)

Items	Kieta household					Buin household				
	A	B	C	D	E	A	B	C	D	E
35 Drum	3	17	12	1	16	37	1	7	5	-
36 Beads	3	9	29	1	20	-	15	1	1	-
37 Shell	-	20	30	-	2	-	6	3	25	10
38 Fishing net	-	-	3	-	-	-	-	-	-	-
39 Hunting net	-	-	7	1	-	-	-	-	-	-
40 Canoe	-	-	-	-	-	-	-	-	-	-
41 Blanket	10	5	8	1	2	7	2	3	15	5
42 Sheet	2	5	2	-	5	3	3	1	8	6
43 Pillow	8	16	9	2	10	2	4	5	7	10
44 Mosquito net	-	-	1	-	-	-	-	1	1	2
45 Sleeping mat	6	5	1	1	12	4	2	2	7	10
46 Towel	7	6	6	1	9	2	1	3	5	2
47 Groundsheet cape	-	-	-	-	-	-	-	-	-	-
48 Suitcase	7	2	13	1	2	7	4	3	4	10
49 Kitbag	1	2	1	-	1	-	1	1	-	3
50 Pack (travelling)	5	3	3	1	2	3	-	1	4	-
51 Laplap	15	4	16	1	5	-	3	-	6	-
52 Shirt	15	15	29	2	20	20	20	8	26	10
53 Blouse	30	9	26	4	15	4	15	4	-	20
54 Dress	10	12	22	4	15	4	15	-	-	10
55 Trousers	2	3	4	-	20	-	5	3	26	5
56 Shorts	28	20	27	5	20	20	20	6	28	10
57 Skirt	20	10	30	4	20	-	9	2	-	5
58 Underwear	10	11	19	2	10	5	10	2	7	6
59 Sweater	2	1	18	2	5	2	5	1	6	6
60 Coat	1	1	-	1	3	1	3	1	1	1
61 Footwear or shoes	2	3	10	1	-	-	3	2	6	4
62 Belt	10	2	9	1	3	5	3	1	8	5
63 Handkerchief	3	15	10	-	4	3	-	3	6	6
64 Hat	-	1	2	1	5	3	3	2	2	-
65 Hair oil	3	2	4	1	1	1	4	-	4	1
66 Powder	1	1	2	1	3	1	2	1	2	5
67 Comb	4	1	3	-	2	4	8	2	3	6
68 Brush	3	1	4	1	3	2	4	-	2	7

Appendix 2.3 (continued)

Items	Kieta household					Buin household				
	A	B	C	D	E	A	B	C	D	E
69 Mirror	1	1	3	1	2	2	4	2	3	8
70 Tooth brush	3	3	4	1	1	4	-	1	3	-
71 Scissors	2	1	3	1	3	2	2	2	1	2
72 Pencil	3	2	4	3	-	5	10	3	4	1
73 Ballpoint pen	-	4	5	1	10	6	10	5	5	-
74 Purse	5	2	3	1	1	1	2	1	5	3
75 Lighter	4	2	5	1	2	4	3	5	2	1
76 Watch	2	1	2	1	2	-	-	2	1	1
77 Clock	1	-	1	1	1	1	-	-	1	-
78 Pigs	-	-	4	-	-	5	12	5	7	1
79 Chickens	8	-	14	-	-	12	14	24	25	20
80 Ducks	-	-	-	-	-	-	-	-	3	-
81 Cycle	2	1	7	1	1	1	-	1	2	1
82 Sewing machine	1	1	1	1	1	-	1	1	1	1
83 Record player	1	1	1	-	-	1	-	-	1	1
84 Cassette tapes	-	1	-	-	1	-	1	-	-	2
85 Motor bike	1	-	-	-	-	-	-	1	-	-
86 Refrigerator	1	-	1	-	1	-	-	-	1	-
87 Car/truck	1	-	-	-	-	-	1	-	-	-
88 Outboard motor	-	-	1	-	-	-	-	-	-	-

Chapter 3

Young Bougainvillians: the potential entrants to the labour market

Having described the prevailing social and economic environment in the villages, it is now possible to analyse Bougainvillians' hopes, aspirations, motivations and attitudes as adaptive mechanism to succeed in a fast changing socio-economic order. For, when a sufficient number of people express their hopes and aspirations in a given direction, the psychological and social character of the society is changed. In this chapter the expressed hopes, aspirations, motivations and attitudes of young school-going Bougainvillians are discussed.

Rationale for choosing school students as sample

Before presenting the actual analysis, a few words about the rationale for choosing school-going students as subjects for investigation would be pertinent. Firstly, it was convenient and less time-consuming to collect data through the use of psychological tests and forms from literate subjects. Secondly, as Finney (1971) observed, the attitudes of the school students of Papua New Guinea were substantially influenced by the prevailing socio-economic environment in their home communities. This is not to deny that many of their attitudes are greatly influenced by the school environment and education. But at the same time it can be safely assumed that the home environment, in which these school students spend their most impressionable years and with which they still maintain intimate connections, will be one of the most important variable factors in determining their inner personality characteristics in future. As Krech (1951:131-2) phrased it:

While personal histories differ in details, most of them suggest that a predominant motive is established in childhood, largely through the influence of social contacts. As the individual gets older, one activity after another may be taken up while others, which no longer contribute to the satisfaction of the predominant

motive, or which contribute less than the new activity, are dropped.

If we accept this psychological postulate, then the young school-going Bougainvillians become important subjects for the present investigation. These are the future entrants to the modern labour market of monetary economy. Recent educational expansion, development of the copper mine and other industrial activities, and political change, have offered various job-opportunities and have made the school-leavers' entry to the work-force possible at higher levels. How do the young school-going Bougainvillians perceive the situation? Does their perception complement or compete with the requirements for fuller participation in the modern exchange economy? The age of youth is one of aspirations and illusions expressed in their highest and most ambitious form. Abandoned aspirations are never quite forgotten, but are rather repressed and at the unconscious level constitute a constant irritant which at critical times breaks through and threatens the individual's immediate adjustment.

Background characteristics of the sample

The sample of Bougainvillian students was selected to exclude all except those from Kieta and Buin subdistricts. Subject to that criterion, whoever was present at the time of data collection was included in the sample. There were 277 students of Kieta subdistrict of which 198 (71 per cent) were boys and 79 (29 per cent) were girls. The sample of 319 students of Buin subdistrict comprised 203 (64 per cent) boys and 116 (36 per cent) girls.

There were no female post-secondary level (i.e. technical college) students from either Kieta or Buin subdistricts in the sample. Boys and girls of the Kieta sample were almost equally distributed between primary and secondary levels of education. Among the Buin sample, on the other hand, a large majority of both the boys and girls were from the secondary level of education.¹

¹This imbalance in the distribution of the Buin sample according to levels of formal education was accidental. At first the data from the secondary level students were collected and their size was unexpectedly large. In order to correct the imbalance more primary level students of Buin subdistrict were planned to be included in the sample. Unfortunately, I had to leave the fieldwork suddenly and the imbalance remained.

Table 3.1Sex and level of formal education of sample students (%)

		Level of education			Total
		Primary*	Secondary**	Post-secondary***	
<u>Kieta</u>					
Boys	(n = 198)	43	49	8	100
Girls	(n = 79)	46	54	-	100
<u>Buin</u>					
Boys	(n = 203)	20	63	17	100
Girls	(n = 116)	18	82	-	100

* Standards 5 and 6.

** Forms 1-4.

*** Students of technical college of first and second year.

A large majority of the sample students were Catholic. Among the Kieta students, as many as 87 per cent were Catholics, 2 per cent SDA, 3 per cent United Church, while 9 per cent did not mention any particular line of Christian faith. On the other hand, United Church seemed to have a sizeable following in the Buin subdistrict. Sixty-three per cent of the Buin students were Catholic, while 27 per cent were followers of United Church, 2 per cent Evangelists, 4 per cent SDA and only 4 per cent did not report any religious faith at all.

Almost all the students in the sample had a rural home background in that the present main occupation of most of the fathers was farming, both subsistence gardening and/or cash cropping. By main occupation was meant those types of work to which a person devoted most of his working time and in some cases which provided the major source of cash income. As many as 79 per cent of the Kieta students' fathers were presently occupied in farming, as compared to 69 per cent of the Buin students' fathers. A slightly greater number of Buin students' fathers were wage-employed as compared to Kieta students' fathers. The most striking observation was that none of the Kieta students' fathers had business as the main occupation, while 5 per cent of the Buin students reported business as their fathers' present

Table 3.2

Main occupation of fathers of the sample students* (%)

	Main occupations**				Total
	Farming	Wage employ- ment	Com- mercial business	Organiz- ational work	
Kieta (n = 277)	79	19	-	2	100
Buin (n = 319)	69	23	5	3	100

* The information on father's present occupation was elicited by asking the students to write a detailed account of their father's work - what type of work, how much time spent on each, main source of income, etc. Those students who did not have a father were asked to write an account of their late father.

** Farming means exclusively subsistence gardening and/or cash cropping. They might have earlier some other occupational experience in wage employment and/or in business. Wage employment, business and organization affiliated work do not exclude farming interest or other business holdings which may be looked after by other family members.

main occupation. On the other hand, very few students of either Kieta or Buin subdistricts mentioned organizational work as their fathers' main occupation. Those who did meant local government council or co-operative or work related to church.

A caveat should be entered here about the preciseness of the students' response in relation to their fathers' occupation. The concept of occupation among the Papua New Guineans is most often not specifically work-related. The nearest Papua New Guinean concept of occupation, as defined in monetary economy, is *bisnis* which indicates economic ventures leading to 'involvement with the cash economy in virtually any capacity other than that of wage earner' (Sankoff 1969:72; see also Salisbury 1970:237-76, and Ploeg 1971). As Ploeg (1972:283) pointed out, wage-earning was generally referred to by the Papua New Guineans as *wok mani*.

It was therefore felt necessary to explain before data collection the differential concepts of various occupations to the students in terms of their own indigenous conceptual framework. It was in this context that farming as *bisnis bilong graun* was distinguished from non-farm commercial business, such as trade store, trucking, etc. Also it was quite possible that within this indigenous conceptual framework of occupation, the students did not perceive organizational work as a major occupation, although some of their fathers spent most of their time in church or local government or co-operative, or other related activities and derived direct or indirect cash or other benefits. As a result, it was likely that organizational work as their fathers' main occupation was under-represented in their responses. Similarly, in some cases farming and non-farm commercial business were not clearly distinguished by them. Given this constraint, classifications of fathers' occupation was done to the nearest possible approximation considering the time spent in various activities and the relative importance of the activities in terms of cash income.

Perceived occupational prestige hierarchy

With the introduction and expansion of monetary economy, and with the development of the copper mine, the range of occupational opportunities has been greatly increased in Bougainville. Assuming that these occupational opportunities are a potential source of status mobility, it is important to know how young Bougainvillian students as the potential entrants into the labour market view various occupations. Which are the occupations perceived by the students to have prestige, and which are not? These are important questions as perceived occupational prestige has a profound influence on the aspirations and behaviour of the potential entrants into the monetary sector of the economy. There has been a number of studies on Papua New Guinea students' perceived occupational prestige, of which the most notable contributions were by Conroy (1972, 1973a, 1973b), Conroy and Stent (1970), and Finney (1971). Similar studies have also been conducted in different parts of the world (see, for example, Foster 1965, Hicks 1968, Ramsay and Smith 1960, and Clignet and Foster 1966). However, there has so far been no specific study done on Bougainvillian students' image of occupational prestige.

Following Goldthorpe and Hope (1972:26), occupational prestige was defined in the present study as 'the chances of deference, acceptance and derogation associated with the

incumbency of occupational roles and membership in occupational collectivities'. A list of twenty-six occupations representing the existing occupational structure available to average school leavers of Papua New Guinea, as well as representing a wide range of prestige hierarchy was prepared.² The students were asked to rank each of these occupations on a 5-point rating scale of respectability (very highly respected, highly respected, held in average respect, held in low respect and held in very low respect).³ The five points in the continuum were given weights of 1, 2, 3, 4 and 5 respectively. After obtaining the responses of all the sample students the mean prestige score for each of the occupations was calculated enabling the ranking of all the twenty-six occupations. The prestige hierarchy of the occupations as perceived by the sample students is shown in Table 3.3 separately for Kieta and Buin students.⁴

Taking the responses of boys and girls together, the Kieta students rated 26 occupations into 26 prestige ranks as against 25 prestige ranks given by the Buin residents. There was a striking similarity between Kieta and Buin students.⁵

²In fact, only 4 additional occupations were included in the list of 22 used by Conroy (1973b). The 4 additional occupations were: political leader, copper mine worker, factory worker (other than copper mine), and priest. These additions were made purposely for the Bougainville situation.

³Initially, I was doubtful about the students' ability to discriminate within a 5-point scale. But during pre-testing it was found that, when explained with example, the students were able to discriminate, and therefore the 5-point scale was retained in the final survey.

⁴The coefficient of concordance (w) was worked out separately for the prestige-ratings given by Kieta and Buin students. A high value of w (value of w ranges from 0 to 1.0) is interpreted as meaning that the judges (in this case, the students) have applied essentially the same standard in ranking or rating the objects (in this case, occupations). For Kieta students, the value of w was 0.915 and in the case of Buin students it was 0.931 signifying a high degree of consensus.

⁵Similarity of the rankings of different groups of respondents was tested by Spearman's rank-difference correlation method and the corresponding values of Spearman's Rho are shown in Table 3.3.

Table 3.3
Occupational prestige rankings by Bougainville students*

Occupation	Kieta students			Buin students		
	Boys + girls (n=277)	Boys (n=198)	Girls (n=79)	Boys + girls (n=319)	Boys (n=203)	Girls (n=116)
Doctor	1	1	1	1	1	1
Priest	3	2	5	5	3	4
Teacher	8	5	4	5	3	4
Political leader	2	3	2	2	2	4
Nurse	9	6	9	6	4	6
Mechanic	4	2	8	9	5	8
Medical assistant	11	7	10	17	12	7
Agricultural officer	6	4	5	8	6	5
Clerk/typist	15	9	10	12	7	10
Army/Air force/Navy**	5	3	6	4	4	2
Police	7	5	3	3	3	3
Office worker	13	9	8	13	7	11
Radio announcer	10	8	7	7	6	4
Patrol officer	12	8	8	14	9	10
Local government councillor	17	11	9	10	8	7
Carpenter	16	9	11	18	10	12
BCP job	14	9	9	15	10	9
Trade store owner	20	13	12	19	10	13
Cash-crop farmer	21	14	13	11	8	8
Factory worker (other than copper mine)	18	10	17	16	9	11
Store assistant	19	12	14	20	11	13
Village gardener	23	17	15	21	15	10
Painter	22	15	16	22	14	12
Driver	24	16	18	23	13	14
Cook/houseboy	25	18	20	24	13	16
Plantation labourer	26	19	19	25	16	15
Between groups			Rho coefficient		Significance level	
Between Kieta girls and Kieta boys			0.6189		p <.01	
Between Buin girls and Buin boys			0.3612		p <.01	
Between Kieta boys and Buin boys			0.8497		p <.01	
Between Kieta girls and Buin girls			0.5212		p <.01	
Between Kieta students boys + girls and Buin students (boys + girls)			0.8278		p <.01	

* Occupations having the same mean prestige scores are given the same rank.

** Air force also includes all kinds of jobs in commercial airlines including air hostess, steward, etc.

Both groups of students seemed to perceive the prestige hierarchy of the various occupations in an almost identical way. The first five most prestigious occupations perceived by the Kieta students were: doctor, political leader, priest, Army/Air force/Navy and mechanic. The Buin students, on the other hand, ranked police and teacher in the first five prestigious occupations, and excluded mechanics.

Now, if we take the last five occupations in the prestige rankings, we find again a very close similarity. Both the groups ranked occupations like village gardener, painter, driver, cook/houseboy, and plantation labourer in the last five down the ladder of respectability.

There was a striking similarity in the response patterns of boys and girls, both within as well as between the sample respondents of the two subdistricts. In fact, individually the response pattern of boys and girls maintained the same core group of occupations in their first and last five rankings as observed above in the case of combined response of boys and girls. There were, of course, some additions and reordering of the hierarchy in the list of occupations. To illustrate, occupations like doctor, priest, teacher, policeman, political leader were common for both the boys and girls of Kieta and Buin subdistricts in their list of first five most respectable occupations. However, there were some interesting differences between the rankings of the boys and girls: first, except Buin boys, all the other three groups included 'agricultural officer' in their list of first five; second, none of the girl-groups of the two subdistricts perceived 'mechanic' in the first five rankings; and lastly, in the group of first five respectable jobs, nurse was mentioned by Buin boys only, and radio announcer by only Buin girls, while Army/Air force/Navy was mentioned by the Kieta boys and Buin girls only.

Similarly, painter, driver, cook/houseboy and plantation labourer were commonly mentioned by both boys and girls of Kieta and Buin subdistricts individually in their list of five lowest ranking occupations. In the same lowest ranking list, 'village gardener' was common only for the boys of the two subdistricts. It was only the Buin boys who ranked medical assistant in the list of five least prestigious occupations, while the Buin girls also included office worker, factory worker (other than copper mine), store assistant, and carpenter in the same list.

What then do the survey results indicate? There were some basic differences between the results of the present investigation and the results obtained by Conroy (1973b). This was partly due to inclusion of some additional categories of occupations in Conroy's list and partly to the prevailing socio-political situation in Bougainville. As in Conroy's survey 'doctor' was perceived as the most prestigious of all the occupations by Bougainvillian students. Similarly, Kieta students followed Conroy's survey results by ranking 'mechanic' in their list of first five prestigious occupations. But unlike Conroy's findings, there seemed to be a particular significance in the Bougainvillian students' mention of political leader, teacher, police, priest, and Army/Air force, in the group of highly prestigious occupations. So far as the perception of least prestigious occupations was concerned, the findings of the present survey seemed to be identical with those obtained by Conroy.

The comparison between the results of the present survey and of Conroy's is useful for two reasons: firstly, the validity of the hypothesis tested by Conroy is retested so far as the similarity of the results are concerned; and secondly, inasmuch as the results are different, it indicates situation-specific response pertaining to Bougainville, which in turn perhaps differentiates the basic personality structure of Bougainvillian students from that of students of other districts of Papua New Guinea. The results of the present investigation also reasonably support the generalizations made by Ramsay and Smith (1960:475) that, '(a) white-collar jobs are accorded higher prestige than blue-collar and agricultural work; (b) occupations requiring no training rank lower than those requiring manual skill and apprenticeship, while both of these are accorded lower prestige than occupations for which a high formal educational attainment is required'. As observed by Conroy, the two groups overlapped in the sense that the occupations like 'mechanic' and 'nurse' were perceived to be superior to many white-collar jobs on the list. It is particularly interesting that occupations like 'priest' and 'political leader' have been consistently rated as highly prestigious. This seemed to be a situational response with political overtones. Christian missions were certainly very prominent and powerful groups in Bougainville district and had a long history there, but how much the high ranking of priest was actually a tribute to religion is unknown. On the other hand, high ranking of both priest and political leader could be partly explained by the prevailing political situation in Bougainville. At the time of my investigation, Papua New Guinea had only recently become

self-governing, and independence was close;⁶ there was the simmering political movement for secession⁷ of Bougainville from Papua New Guinea, epitomized in the granting of District Government for Bougainville by the Papua New Guinea Government; there were the burning political issues of framing Papua New Guinea's constitution and renegotiation of the Bougainville Copper Mine Agreement. In other words, the investigation was made at a time when there happened to be intense political activity and movement all around Papua New Guinea with particular focus on the Bougainville situation. It was in this context that I remarked in a recent article:

Bougainville is perhaps now the most politicised society in Papua New Guinea. Hardly any meetings or even informal group discussions in the village are held without some mention of the prevalent territorial questions related to Bougainville as district. The most interesting point is that even the young school going children are deeply interested in politics (Moulik 1975).

In this political atmosphere, a number of young educated Bougainvillians became the popular leaders and spokesmen of Bougainville's interests.⁸ Another institution with growing

⁶ Papua New Guinea became independent on 16 September 1975.

⁷ The secessionist movement of Bougainville took a new turn on the eve of the independence of Papua New Guinea. Bougainvillian leaders unilaterally declared Bougainville an independent North Solomon Republic, at a meeting in Kieta attended by 5,000 islanders.

⁸ Some of the young Bougainvillian leaders were ex-Catholic priest Father John Momis, Dr Alexis Sarei, Mr Leo Hannett and Mr Moses Havini. Father Momis was the elected member of the House of Assembly from the Bougainville Regional Electorate and Deputy Chairman of the Constitutional Planning Committee. Dr Sarei is an ex-missionary and was the head of the interim District Government. Mr Hannett was the chairman and the founder member of the Bougainville Special Political Committee formed in late 1972 and worked as Special Adviser on Bougainville affairs to the Chief Minister. From late 1973 Mr Hannett was the Assistant District Planner in the interim District Government of Bougainville. Mr Moses Havini was the Executive Officer of the interim District Government of Bougainville.

political influence and following during this period of investigation was the Mungkas Association, the society founded by Bougainville tertiary students in Port Moresby (Oliver 1973:219). One of the most prominent and popular Bougainvillian leaders during this period was the Catholic priest Father John Momis. It was quite likely that 'priestship' was highly regarded by the students because they identified it with him. Similarly, the young educated Bougainvillian leaders became the idols of the Bougainvillian students, and made them perceive 'political leader' as a highly prestigious occupation.

The results of the survey of the Bougainvillian students also shed an interesting light on the influence of local conditions on their perception of occupational prestige. The most prestigious occupations to them were those involving the new techniques introduced by Europeans - public service and teaching (agricultural officer, priest, political leader, police, Army/Air Force/Navy and school teacher), health (doctor, nurse) and mechanization (mechanic). It is clear from the list of the most prestigious occupations that a certain level of formal education and specialized training are essential prerequisites to succeed in these occupations. In fact, educational achievement and prestigious occupations are considered almost synonymous by the Bougainvillians. It is the supreme desire of the vast majority of Bougainvillian parents to give their children the opportunity for formal education, to the extent that sometimes there is immense psychological pressure from society. A Bougainvillian university student described the pressure thus:

I was most reluctant to go to the University in Port Moresby. I hate it. I wanted to be in the village. But all the villagers including my parents and relatives wanted me to go to the University for getting a degree in economics. I had no choice.

Many young Bougainvillians, however, yield to the pressure willingly and conceive the idea that by acquiring a formal certificate of some educational level one has a better chance to be respectable. This is exactly the way a young student of the Kieta Vocational Training Centre expressed his expectations:

I want the certificate of the diploma from the Training Centre. This is the only reason why I joined the Centre. I had all the necessary training and practical experience, but did not have a certificate. You cannot reach a top

supervisory position without the certificate. I do not want to work all the time in the workshop.

It was probably because of the social pressure towards educational achievement that Bougainvillian students seemed to be more serious in their attitudes and behaviour than other Papua New Guineans.⁹ In Bougainville, while education definitely gives an individual increased status, the aspect of social service through education - in terms of teaching, medicine, and other public services - is a further motivating influence.

There are also other influences emanating from the socio-political situation. It would seem, for example, that those occupations were highly rated by the students in which the 'whites' have proved themselves to be superior, in which they predominate, and which until recently seem to have been reserved for a privileged minority. Thus, there seems to be a strong influence of nationalist sentiment on the perception of occupational prestige. Public affairs and politics related to the welfare of Bougainville people have become a legitimate symbol of reference and a deeply ingrained image of respectability among the emerging young elite. Consequently, those occupations were perceived highly respectable which offer a chance to work for public welfare and national cause and through which one may build up grassroot support for future leadership positions. The future promotion possibilities and existence of a foreigner-boss were also considered in ranking the occupations into prestige hierarchies.

Extending the same argument, it is possible to understand why certain occupations were treated low in the prestige hierarchy. Bougainvillians regarded manual labour as 'the worst', because it meant hard work for the lowest wage, it meant an occupation for the uneducated, and in most cases manual labour meant having several bosses above, and quite likely they would be 'white' bosses. As a result, occupations like stores assistant, cook/houseboy, plantation labourer, painter, driver, carpenter, factory worker, etc.

⁹ This point was nicely brought out by Professor D. Oliver while narrating one of his personal experiences. An important soccer match was to be held in a school and all the students were excited about it. Professor Oliver observed that while most of the school students went to witness the soccer match, a number of Bougainvillian students were busy studying library books (personal communication).

were rated low in the prestige hierarchy. It was surprising that the independent traditional occupations such as cash cropping and subsistence gardening were regarded as low prestige occupations. A close probing, however, made it clear that most of the school students did not think of village gardening and cash cropping as their immediate occupational goal. Beside the fact that gardening and cash cropping meant hard work, they were considered to be so mundane and common that they needed no special effort for achievement and therefore were regarded low in the prestige hierarchy. The same was true of trade store business.

It was interesting to note that employment in the Bougainville Copper Mine was not considered as an occupation of high prestige, neither was it rated among the lowest prestige category. This was in spite of the fact that BCP was the major employment-giving industry in Bougainville with relatively higher monetary benefits and modern training facilities. Some deep probing about this fact revealed ambivalent feelings. On the one hand, the students were perfectly aware of the advantages of employment in BCP in terms of monetary benefits, future career opportunities and technical training facilities. But they were equally concerned about the darker side of the picture. Nationalist as they were, the students pointed out that the prevalent anti-BCP feelings¹⁰ among Bougainvillians were due to: (a) the question of ownership of mineral deposits which the Bougainvillians thought they were being illegally deprived of; (b) the unfortunate experience of Bougainvillian villagers at the initial stage of mining development and land acquisition; (c) damage caused to assets on the land; (d) financial benefits unfairly distributed; (e) losing women to non-Bougainvillians; (f) increase in fighting, stealing, alcoholism; (g) 'white' bosses in most of the BCP jobs; (h) paternalism and ethnocentrism of the 'whites';¹¹ (i) inflow of

¹⁰ For details see Mamak and Bedford (1974), Moulik (1975), Oliver (1973), Momis and Ogan (1972) and Griffin (1973).

¹¹ A young Bougainvillian BCP employee expressed his frustration and anger against such an exhibition of ethnocentrism and paternalism: 'I get fed up when some of my European colleagues and bosses in the company ask silly questions and want to show their artificial concern about Bougainville. When the mining finishes, say after 30 or 40 years how would the Bougainvillians manage themselves? What would have happened to the Bougainville people if the

Highlanders and other Papua New Guineans to Bougainville; (j) discrimination in pay scales between 'white' and indigenous employee; (k) position without any responsibility,¹² etc. These were in general the common elements in the prevailing anti-BCP feelings among Bougainvillians. Obviously conditioned by this politicized atmosphere on the one hand, and the perceived advantages on the other, the students seemed to become ambivalent. And out of ambivalence a BCP job was rated somewhere in the middle of the occupational prestige hierarchy. But the fact remains that in terms of monetary benefit and opportunities for career building and technical training facilities, a BCP job was regarded as an attractive occupation.

Career aspiration

Does their perception of the occupational prestige hierarchy influence the students' choice of future career? This question may be answered by presenting the data on the students' expectations and aspirations about their future career. The students were asked questions designed to reveal expectations on the one hand and preferences on the other towards the choice of career after they finish their formal

11 (continued)

mine was not there? etc., etc. I know what answers they expect to hear from me. But they forget that we Bougainvillians did not invite them to come here to develop the mine. Even without the mine we will live happily as ever; we have enough food in the garden. After all we do not get our due share from the mine, nor do we want to live in our land as second class citizen' (Moulik 1975).

¹² During the fieldwork, I met a number of BCP-employed Bougainvillians and other Papua New Guineans holding fairly high level positions in the company. Their most common private complaint was that although they were getting fat money and being promoted to higher positions, they were not given any responsibility whatsoever. They seemed to feel inane to the extent that they were often embarrassed even to talk about their work. On the other hand, given the prevailing anti-BCP feelings, they seemed to feel extremely apologetic about accepting the BCP job with its self-imposed stigma, as if they were guilty of betraying national feelings.

education or when they grow up.¹³

The mutually reinforcing responses of the students to both sets of questions indicate the consistency and pragmatic nature of the Bougainvillian students. In spite of the fact that the students were greatly influenced by the lofty ideals of Bougainville nationalism prevailing at the time, they seemed to be fairly sensitive to the existing environment. Except a few students who aspired to 'dream jobs' such as doctor, pilot, engineer, scientist or political leader, the vast majority appeared to be influenced by occupations available in their present environment.

Even the differential response patterns of the boys and girls revealed the expected distinctions between the normally sex-specified areas of activities, signifying their sensitivity to environment. A large majority of the Kieta girls, for example, aspired to jobs such as teacher, nurse, clerk/typist, and store assistant, while the boys mostly aspired to mechanic or doctor or teacher. Among the Buin students, on the other hand, a large majority of the boys expected jobs such as teacher, mechanic, doctor, industrial worker, and government officer, while most of the girls aspired to be either teachers or government officers or industrial workers, farm workers or political leaders. Some of the jobs seemed to be sex-role specified in the sense that the jobs like mechanic, Army/Air Force/Navy, police, engineer/scientist were not mentioned at all by the girls of either subdistrict. In this category the job of doctor might also be included as it was mentioned by only a few Kieta girls. Similarly, jobs such as nurse, clerk/typist, store assistant were mentioned by only a few boys of both subdistricts indicating that they perceived these occupations as specifically for girls.

However, the Buin students, particularly the Buin girls, appeared to have more varied aspirations and were also more

¹³The students were asked to write short essays on the following two questions:

- (a) What would you like to do when you finish schooling and grow up? Include the job that you think would be best in the world for you. What do you expect will be your earnings from the job; where do you want to live?
- (b) If it pleased God to make you anyone or anything you please, who or what would you like to be? Give your reasons.

Table 3.4

Career aspirations of the Bougainvillian students
(% students responding)

Career	Kieta students			Buin students		
	Boys (n=198)	Girls (n=79)	All students (n=277)	Boys (n=203)	Girls (n=116)	All students (n=319)
Doctor	15	4	12	12	-	8
Teacher	14	36	21	16	45	26
Political leader	-	-	-	-	13	5
Nurse	4	28	11	1	2	1
Mechanic	35	-	25	16	-	10
Government officer*	4	-	3	10	13	11
Clerk/typist	3	20	8	3	-	2
Army/Air force or Airlines/Navy	6	-	4	8	-	5
Police	2	-	2	7	-	4
Engineer/scientist	2	-	1	2	-	1
BCP job	1	-	-	1	5	3
Other industries (other than copper mine)	4	-	3	11	10	11
Store assistant	1	12	4	2	2	2
Farming	4	-	3	1	10	5
Not specified	5	-	3	10	-	6
Total	100	100	100	100	100	100

* Government officer means staff jobs in the development departments of government such as agriculture, development bank, co-operative, information and extension services, trade and business development, etc.

ambitious than their counterparts in the Kieta subdistrict. Perhaps the relatively more intimate exposure and day-to-day interactions with the realities in terms of job situation, particularly when the employment market was mainly concentrated in the Kieta area, made the Kieta students less dreamy and ambitious than the Buin students.

It was significant to note that except for some Buin girls, 'political leader' was not specified as a preferred career. Similarly, 'priest' was not mentioned at all by any group of students. This helps to enforce my earlier argument about the pragmatic environment-sensitive nature of the Bougainville students. This does not mean that the prevailing socio-political atmosphere of nationalist idealism did not influence the students' aspiration at all. It did so, particularly regarding a BCP job. But one might argue that the limited job availability in BCP at the present stage of development as well as an extremely high competitive market for BCP jobs made them limit their aspirations.

Barring 'political leader' and 'priest', and considering the perceived distinctions between sex-specified roles, the students' aspirations tended to follow in general the patterns of their perceived occupational prestige. There was, however, an important deviation from this generalized norm. A considerable number of the Buin girls were reported to aspire to low prestige 'farming' and 'other industrial employment (non-BCP)' as their future career. Such conflicting deviations from the occupational prestige norms may be explained in terms of their basic motivations for the choice of future career. This will be discussed later in this chapter, but for the present it may be indicated that those Buin girls aspiring to farming as their career seemed to be a homely type who perceived their future lives as housewives, married to average Bougainvillian men with cash crops and gardening in the villages of residence in which they would perform their traditional jobs in helping their families in farming activities. On the other hand, the Buin girls who mentioned 'other industrial employment (non-BCP)' as their future career did not mean manual or mechanical work, but simply office work as typist, clerk, secretary, receptionist, telephone operator, etc. In this sense, 'other industrial employment' was not separated from the general category of 'clerk/typist'.

A relatively greater interest in the profession of 'mechanic' among the Bougainvillian boys indicated perhaps a general trend in Papua New Guinea. Finney (1971:68) observed a similar trend in her study. In view of the copper mine development and the ongoing process of industrialization, this

trend has important implications. Bougainvillian boys seemed to find a unique attraction in machines - to such an extent that they appeared to lose interest in other important activities such as building, carpentry, cash cropping, etc. To many Bougainvillians modern machines were something like demi-gods with elements of cargo-cult magic. They looked at these demi-gods with wide-eyed surprise and awe which provoked in the young minds a tremendous desire to master the machines on the one hand, and a fear of failure and incompetence on the other. Added to this mixture of feelings was the urge of the nationalist Bougainvillians to prove themselves equally competent with the 'whites'. The impression one gets while observing the young Bougainvillians working with machines in the copper mine and in other industries, is that the Bougainvillians are very efficient in dealing with machines, although they seem slightly slower in learning the machine-skills initially than, say, the Tolais. This impression was emphatically supported by many white supervisors and technicians. It was in this context that a leading Bougainvillian white-collar employee of BCP, when asked why the educated young Bougainvillians were interested only in 'white-collar' jobs, remarked that this was true only when office work was the sole alternative to domestic service or manual labour.

It was striking that not a single Bougainvillian student mentioned 'commercial business' as his future occupation. But it would be too simplistic to gauge the students' interest in 'business' from their responses to the question of career expectations and aspirations. For, as Finney (1971:67) rightly pointed out:

First, students may not have thought of starting a business as a 'job' which to them more properly meant 'wage-employment' Second, students may have found it difficult to take seriously the question about doing 'anything at all' when the emphasis at school was on what occupations to follow after first leaving school, rather than on what to do eventually. Even though they may have wanted to go into business eventually, the students knew that this needed capital and skills most likely acquired only after many years of work; consequently, the replies they gave to the work choice question were probably conceived in terms of the first kind of work they planned to do.

In order to overcome these limitations, and to arrive at appropriate conclusions about the students' interest in

'business' as a future career, one has to analyse the reasons given by the students for their career aspiration, and this will be done later in this chapter.

How realistic were the occupational aspirations of the Bougainvillian students? Were they confident that they would be able to enter their preferred occupations? In other words, given the prevailing job market and socio-economic conditions how realistic did they feel their career aspirations were? The students were asked: 'What are the chances that you will enter your preferred occupation? Do you anticipate that you will be able to enter into your preferred occupation, or will you have to choose another occupation?' They were also asked to specify if there was any change in their preference.

Table 3.5 indicates that (1) both the Kieta and Buin students aspiring to relatively low-ranking occupations expected somewhat higher ranking occupations; (2) those preferring relatively high ranking occupations had revisions downward in their expected occupations; (3) while the preferences for 'dreamy jobs' such as 'doctor', 'engineer/scientist', 'political leader', and 'Army/Air Force/Navy', had relatively larger downward revision, the preferences for the low-ranking jobs, such as 'farming', 'BCP job', 'other industrial jobs', and 'clerk/typist', had upward revision; and (4) while in the case of Kieta students the revised estimates of the expected occupations *vis-à-vis* preferred occupations were not statistically significant, for Buin students the revisions were statistically significant.

The findings lend support to the idea that reality causes revision of occupational aspirations when the students are forced to choose between the occupations preferred and the ones they expect to enter. This was particularly true for the Buin students who significantly raised their estimations. In other words, the findings indicate that the Buin students tended to be less realistic in their career aspirations than their counterparts in the Kieta subdistrict.

Income aspiration

The foregoing analysis has shown that there was a close association between perceived occupational prestige and career aspiration. A related question would be whether perceived occupational prestige was dependent on income aspirations or vice versa. Conroy (1973a) concluded in his study that 'prestige, and not income, appears more likely to be the dependent variable. Income (or some other variable or set of variables for which income is a close proxy) is crucial in the

Table 3.5

Reality estimate of the students as measured by the
distance of the ranks between their average
preference and expected occupational levels

Occupation	N		Average reality score*	
	Kieta (n=277)	Buin (n=319)	Kieta (n=277)	Buin (n=319)
Doctor	34	26	-0.85	-0.79
Teacher	59	83	-0.001	-0.005
Political leader	-	16	-	-0.89
Nurse	30	3	-0.16	+0.17
Mechanic	69	32	+0.08	+0.11
Government officer	8	35	-0.002	-0.004
Clerk/typist	22	6	+0.21	+0.23
Army/Air force/Navy	11	16	-0.38	-0.35
Police	6	13	-0.001	+0.004
Engineer/scientist	3	3	-0.60	-0.61
BCP job	-	10	-	+0.41
Other industries (other than copper mine)	8	35	+0.006	+0.59
Store assistant	11	6	+0.051	+0.18
Farming	8	16	+0.59	+0.32
Not specified	8	19	-	-

* χ^2 values were obtained by comparing the distributions of preferred and anticipated occupations for goodness of fit for each of the two groups of students. χ^2 value for the Kieta students was 12.182 at 9 d.f. and for the Buin students 20.383 at 11 d.f. Needed χ^2 values for significance at 0.05 level were 16.919 at 9 d.f. and 19.675 at 11 d.f.

assessment by school leavers of the status of occupations'. Do the income aspirations of the Bougainvillian students support this proposition? This question was examined indirectly by asking the students to indicate their expected incomes from the jobs they aspired to.

Table 3.6

Income aspirations of the Bougainvillian students
according to future career aspirations

Aspired career	Average expected incomes (\$A)/fortnight*	
	Kieta students (n=269)	Buin students (n=300)
Doctor	120.00	160.00
Teacher	63.23	50.25
Political leader	...	100.00
Nurse	28.33	30.00
Mechanic	96.70	71.28
Clerk/typist	30.78	22.00
Army/Air Force/Navy	85.90	82.65
Police	40.00	50.00
Government officer	75.00	62.30
Engineer/scientist	105.83	130.20
BCP jobs	60.00	51.00
Other industries (other than copper mine)	31.50	43.50
Store assistant	27.68	24.60
Farming	13.80	11.50

* The students who did not specify the expected or aspired occupations were excluded in the analysis of income aspiration.

The expected incomes as shown in Table 3.6 seemed to corroborate a strong association with the perceived occupational prestige hierarchy. In other words, both the Kieta and Buin students appeared to expect greater incomes from those occupations perceived as highly prestigious than from those occupations perceived low in the prestige hierarchy. It must be noted here that the data on income aspirations did not prove or disprove the hypothesis that occupational prestige was dependent on income. It simply indicated a

strong association between income and prestige. On the other hand, it was clearly demonstrated that the Bougainvillian students were well aware of the differential income rewards to be gained by participation in the monetary sector over a wide range of occupational structure. But this awareness did not mean that their income aspirations for different jobs were realistic. In fact, when compared with the existing wage rates, the income expectations of the students, in the aggregate level, were mostly unrealistic in the sense that they were either under or over actual rates of pay. Thus, as in Conroy's (1973) study, the Bougainvillian students' knowledge of the labour market in relation to economic rewards was far from perfect. Perhaps understandably the young student's frame of reference extends no further than his own immediate environment, family and friends. Because of cultural, environmental, economic and educational factors, the Bougainvillian student, although recognizing the existence of occupations on a differential socio-economic reward plane, has no accurate insight into the relative financial returns available from the different forms of employment available.

Motivational factors for career plans

Given the strong association between perceived occupational prestige and income aspirations, what motivates the Bougainvillian students in picking a particular career? In other words, what characteristics of a job do students consider important in planning their future career? The next question to be asked is: How far does the Bougainvillian student conform to 'the model of Economic Man'? As Arndt (1972:590) suggested:

Wherever, and to the extent that, status attached to the acquisition of wealth or achievement in some productive activity, the status motive merely reinforces the real income motive, and the model does not diverge from Economic Man. But where status attaches to other characteristics or activities, whether to birth, or power, or saintliness, or prowess in war, behaviour motivated by status will diverge from behaviour postulated by the model of Economic Man.

As mentioned earlier, the sample students were asked to indicate why they aspired to particular jobs. The reasons given were as varied as human motivations could be, ranging from specific to generalized characteristics of the jobs. In order to present a coherent and comparative picture, the reasons given by the students were first grouped into ten broad categories of generalized motivational characteristics

Table 3.7

Ranking of motivational factors influencing future
career plans of the Bougainvillian students*

Motivational characteristics of jobs	Kieta			Buin		
	Boys	Girls	Boys + Girls	Boys	Girls	Boys + Girls
	(n=198)	(n=29)	(n=277)	(n=203)	(n=116)	(n=319)
1. To be helpful to others	1	1	1	1	1	1
2. To make a lot of money	3	2	2	2	3	3
3. To be able to increase knowledge and give new ideas	2	3	3	3	2	2
4. To have a chance to do some- thing adventurous and creative by oneself	4	4	4	5	5	5
5. To be able to influence others	5	5	5	4	7	4
6. To be able to work in a completely new area	6	7	6	8	6	7
7. To be able to work with people, not things or machines	9	10	7	7	11	6
8. To be able to avoid pressure to finish the job in a fixed time	10	6	8	9	9	9
9. To be able to achieve freedom from supervision and bossing (independence)	7	8	8	6	10	8
10. To be able to work in the same areas of activity in which already engaged and experienced	8	9	9	10	8	9

* The Spearman Rho coefficients or rank difference correlation coefficients between the rankings of different groups of respondents are:

	<u>Rho coefficients</u>	<u>Significance level</u>
Between Kieta boys and Kieta girls	0.8667	p <.01
Between Buin boys and Buin girls	0.7333	p <.05
Between Kieta boys and Buin boys	0.8909	p <.01
Between Kieta girls and Buin girls	0.6485	p <.05
Between Kieta students (boys + girls) and Buin students (boys + girls)	0.95455	p <.01

of the jobs. The students were then asked to rank these ten characteristics in order of importance in planning their future career.

Table 3.7 shows how the girls and boys of the two sub-districts ranked these characteristics. Again there seemed to be striking similarity in the response patterns between the sample students of Kieta and Buin subdistricts.¹⁴ There was also no significant difference between boys and girls in their ranking patterns, irrespective of the subdistricts. The three most important motivational characteristics influencing the students' future career plans were: to be helpful to others; to make a lot of money, and to gain new knowledge. The consistently high rankings of the motivational factors 'to be helpful to others' and 'to be able to influence others' signified the students' interest in public welfare and political leadership on the one hand, and the influence of nationalist feelings on the other. This point has already been emphasized in relation to the students' perception of occupational prestige. The students, however, were not simply guided by these non-economic status criteria in their future career plans. Following 'the model of Economic Man', the potential monetary reward has been an equally important concern, ranking only next to 'helpful to others'. In fact, the relatively highly ranked motives like 'gaining new knowledge' and 'to do something adventurous and creative' may be seen as contributing to public welfare and political leadership on the one hand, as well as being tools to acquire competence and skill to earn more money on the other.

The students' ranking of motivational characteristics reflects some important features of Bougainvillian preferences for employers and jobs. As Bedford and Mamak (1975) pointed out, for the great majority of Bougainvillians 'wage employment was considered to be the easiest, although not necessarily the most desirable way of generating cash income'. Thus, even though the Bougainvillians were not accustomed, by tradition, to the rigour of working to a time-table in a wage employment situation, this was given little consideration in their career plan. On the other hand, wage employment, particularly in the urban industrial sector, was not thought to be the most desirable way of generating cash income, because it entailed leaving the familiar surroundings, forgoing freedom and independence, living in an alien environment with long-standing antagonisms based on ethnic factors and various other related considerations.

¹⁴ Similarity was tested by Spearman Rho coefficients presented below Table 3.7.

This aspect will be discussed later. For the present suffice it to say that to most Bougainvillians wage employment, particularly in urban-based industries, offered no appreciable advantages in exchange for their independence except for the possibilities of making 'quick money'. And it is this lure of 'quick money' that undoubtedly attracts the Bougainvillians like a magnet to wage employment. Money is needed more and more with the changing structure of the village economy and with the increased desire for a wide range of consumer goods and services. As a result, the chief incentive for the Bougainvillians is the desire to obtain the best paid work available. To this end he makes an ambitious attempt to get some type of special training and education in order to make and save up sufficient money in a relatively short span of time. The Bougainvillian makes his way by gradual stages, through one job after another, without committing himself permanently in a particular job. It is this short-term commitment to a particular job, and the tendency to shift from one job to the other, that has contributed to the widely held belief that Bougainvillians are less committed, and thus less reliable employees than some other Papua New Guinea groups.¹⁵

This state of continual flux in the labour market is basically due to the very nature of salaried employment in Bougainville, and to the particular types of economy which exist in this region. But the most interesting point revealed in the students' rankings of motives, was the fact that 'making money' was only second or third in the hierarchy of importance to factors like 'being helpful to others' and 'gaining knowledge'. In other words, money was considered to be an important incentive only when the job satisfied the criterion of socio-political desirability with particular reference to welfare and political influence¹⁶ and ideals of

¹⁵ A manager of a fairly big employer organization in Bougainville once remarked to me: 'I really sometimes cannot understand the rationale of my Bougainvillian employees. It does not matter what the job is, what kind of job satisfaction he can have, what the working conditions are, the Bougainvillian is ready to shift, if the other job gives him even a marginal monetary benefit.'

¹⁶ During the fieldwork, for example, some instances were reported in which the Bougainvillians shifted from one job to the other in spite of the fact that the new jobs taken up provided less monetary benefit than the jobs left. A close follow-up in these cases revealed that the new jobs satisfied the social desirability criterion more than the old

nationalism. This is perhaps not unique to the Bougainvillians. Given the type of basic economic security of the village economy, which a majority of the Bougainvillians have, money will not always be the supreme motivating factor, particularly if the monetary incentives are not greatly different between jobs. What is perhaps unique in Bougainville is the persistent emphasis on the social desirability of nationalist ideals even among the young school students. This is particularly surprising given the fact that 'unlike many ex-colonies of Asia and Africa nationalist movement as a political demand in Bougainville (or for that matter in Papua New Guinea) has been relatively of short duration which is as yet unable to provide a forum and training ground for social and economic reform, ideological articulation, organizational action, and mobilizational activities' (Moulik 1975). Much of the nationalistic feeling has been strengthened by a generalized sense of deprivation, humiliation and non-participation in their own affairs, particularly in relation to the giant copper mine. As a result, Bougainville is perhaps now the most politicized society in Papua New Guinea,¹⁷ and the young educated generation of Bougainville are very politically minded and deeply interested in public affairs.

Long-term occupational goal

About twenty miles north of Arawa town, within easy reach of the townships of Kieta, Arawa and Panguma, the traffic and urban temptations, lived a young Bougainvillian, a former trained employee of the Public Works Department, Port Moresby, educated in a missionary school up to Form 2 (by Papua New Guinea standard, a fairly high level of formal education), who boasted that he had returned to his village to work with and help his people in making them understand their social, economic and political rights. It was his deliberate personal choice to leave his job and not to seek any further wage employment with the government or with the private sector. Instead, his chief occupation was organizing the socio-economic-political life of the village.

16 (continued)

jobs. For example, a fairly high-level employee of BCP resigned and took up a much lower paid job in a co-operative on the grounds that BCP discriminated in favour of white employees in relation to pay and housing allotment in Arawa township.

¹⁷For a detailed discussion of this point, see Moulik (1975).

On a villager's modest income from subsistence-cum-cash crops, this young man used to spend most of his time in organizing meetings, persuading his fellow villagers, and contacting established Bougainville nationalist leaders on behalf of the villagers.

Despite their proximity, Panguna mine or Arawa town held no fascination for this young man. At the time of this study he was twenty-three, and he had visited the copper mine at Panguna only once. His entire interest was focused on Bougainvillian villagers' common political and economic rights, and he seemed to be almost fanatical about it. He was not a professional politician who made his living from these activities. He wanted to help his own people. Politics, as he saw it, was his passion; it consumed his time and money too. It affected his family, his friends and his ideas. He measured himself against a perceived set of standards of some established nationalist leaders of Bougainville. In short, this type of voluntary political and social activity gave him the sort of reward many Bougainvillians had difficulty in finding.

It is not the purpose here to bring any moral out of this young man's story. The intention is to point out that at one end of the continuum there were such young men, although not in great numbers, highly oriented towards politics, whose ultimate occupational goal was deeply coloured by the prevailing nationalistic ideologies. At the other end of the continuum there was the large majority of Bougainvillians who did not prefer to take wage employment as a permanent occupation; they hoped to get back to their villages for varying periods or to establish themselves in some form of commercial activity (e.g. cash cropping) which was not only profitable, but satisfied their need for freedom and other socio-psychological needs. This was another cause of Bougainvillian mobility, and had its origins in the ethic of reciprocal exchange, which was for a long time the dominant feature of the traditional economy.

This point about the ultimate occupational goals may be highlighted by presenting the data on the students' preferences for place of living *vis-à-vis* their occupations and the reasons for their preferences. It was hypothesized that since most of the wage employment opportunities were concentrated in the towns except for a few government jobs, the students' commitment to wage employment as the ultimate

occupational goal would be reflected in their preferences for towns or villages as the eventual place of living.

Table 3.8

Students' preferences for eventual town or village living*
(%)

Place of living	Kieta			Buin		
	Boys (n=198)	Girls (n=79)	Boys Girls (n=277)	Boys (n=203)	Girls (n=116)	Boys Girls (n=319)
Town	20	15	19	40	31	37
Village	67	85	71	45	62	51
Ambivalent**	13	..	10	15	7	12
Total	100	100	100	100	100	100

* $\chi^2 = 14.18$, significant at .01 level indicating that preferences for place of living vary significantly between Kieta and Buin students (girls and boys of a subdistrict taken together).

** The most usual explanation for the ambivalent preferences was: 'For service living in town would be necessary, but when retired village living would be preferred for setting up business and for peaceful living'.

Table 3.8 revealed that a majority of the boys and girls of both the subdistricts showed preferences for village living, as compared to town living. However, between the students of the two subdistricts, the preferences for town living were more frequent among the Buin students. In both subdistricts, the girls showed more preferences for village living than the boys. Ambivalent preferences in the sense that town living was thought to be necessary during the active life of wage employment, but village living preferred after retirement from wage employment was reported by a relatively few students, particularly boys.

The hypothesis stated above appears to gain some support from the survey results. Firstly the Buin students showed a greater preference for urban living than those from Kieta, which may indicate a greater commitment to wage employment. This could in part be explained by the locational differences

between the two subdistricts.¹⁸

Secondly, while almost all the students of both the sub-districts (99.2 per cent of Kieta students and 97.3 per cent of Buin students) preferred their eventual place of living to be within the Bougainville district, most of those preferring town living also indicated that they would like to maintain their ties with their home villages through occasional visits, and helping their parents and relatives by means of cash and labour contributions in farming or other business enterprises. In other words, a complete severance from village ties was not implied, even by those who preferred to live in towns permanently. On the other hand, there seemed to be some wish to escape from the demands of tradition; a large majority (more than 80 per cent) of the boys and girls of both the subdistricts indicated that they would prefer to work and live further away from their villages at least for ten or fifteen years of their working lives, in order to save more money and enjoy their lives according to their own wishes, which they¹⁹ thought was not possible living in or near one's own village. How far they could escape traditional pressures by living away

¹⁸ See Chapter 4 for a detailed discussion.

¹⁹ This was illustrated by the story of a young Buin girl. She was a primary school teacher in the Kieta subdistrict. At the time of my investigation she received a transfer order to a school very near to her village in Buin subdistrict. On hearing this news, I congratulated her thinking that she must be happy at the prospect of being posted near her home. She gave a sad smile and later, on inquiry, she explained why. After repeated representations to the authority she got the posting to this Kieta school from one of the Buin schools. While she was in the Buin school near her home village she was very unhappy because she had to give all her earnings to her parents and relatives; they demanded and she could not deny their demand in fear that she would become a bad girl in the eyes of everybody, and it would be known to everybody. For one year while she was in Buin school she could not save at all, neither could she buy clothes nor anything she wanted. By her own efforts she got transferred to this Kieta school, and she had been much happier here for the last year; she could save some money, buy clothes according to her choice, and also a few things like a radio, a good mirror, etc. She was also free to go out with any boy friend she chose. This was not possible in the Buin School. Not that she could completely escape the

from home villages, but within the Bougainville district, was a debatable question. It is quite likely that the social pressure of tradition is reduced to some extent, but it continues to be exerted.

The students did not give their preferences for town or village living at random. While students were conscious of advantages and disadvantages associated with rural or urban living, they appeared to calculate the trade-off value between the two before giving their preferences to one or the other. In other words, it was a deliberate and calculated choice based on their expectations and ultimate occupational goals. This is clearly borne out by the data on the students' expressed reasons for their preferences (see Appendices 3.1 and 3.2). To illustrate, while those preferring town living emphasized infrastructural facilities (education, entertainment, health, communication, etc.) and money earning opportunities (business and job opportunities, better standard of living, helping parents in villages by supporting them with cash, etc.), those preferring village living were also conscious of relative advantages and disadvantages of the two modes. It was this consciousness which made some students 'ambivalent' in their preferences, particularly the Kieta students whose location gave them the opportunity to derive benefits from both village and town living within the present economic structure of Bougainville district.

Ethnic distinctiveness: social assimilation

Bougainville today is a multi-racial society in which the Bougainvillians form the natural major ethnic group. The mass intrusion of immigrant workers (both 'whites' and non-Bougainvillian Papua New Guineans) in the mining and related economic activities has made the multi-racial character of Bougainville society more obvious than before. This is inevitable because modernization or industrialization of the economic structure brings about such transformation of the social structure. Firth (1948:98) rightly observed:

19 (continued)

pressure from her parents and relatives; she went home once, and her parents visited her in Kieta once, and she gave some money then; she also used to send money almost regularly to her parents. But because of the distance she could still enjoy some freedom from pressure and save some money. Now that she was transferred again to one of the schools near her village in the Buin subdistrict, she would lose everything she had saved and bought, as well as her freedom.

As one tours through a modern factory nothing seems to be more alien than the primitive or peasant working community. Instead of that tightly knit group, bound together by a multitude of social ties, including often the ties of blood relationship and marriage, the factory is an even tighter aggregation of people but with the primary tie between them only their joint contributions to a common product or set of products. Instead of a common background and largely common aims, the factory worker has a great diversity of individual origins and interests; and instead of a common knowledge of one another's home life, there is often the most profound ignorance.

Thus, whether or not the Bougainvillians want it, they have to accept the diversity of the ethnic structure of Bougainville society, especially in relation to modern economic activities. Unless one chooses to remain deliberately isolated in a remote inaccessible area, which certainly is not possible any more for a long period of time, one is forced to interact with people of different ethnic backgrounds in order to participate successfully in the exchange sector of the economy. This is particularly so in the wage sector and in commercial activities. Incentive to work, after all, is not governed solely by the job itself; it is the total social situation that matters. As Firth (1948: 100) summed up:

Work involves not only a set of technological and economic relations; it involves also a set of social relations. The character of these social relations, other things being equal, is a determinant of the employment into which the worker will enter, and in which he will choose to remain. It also affects quality of output As the physical environment recedes into the background of interest, the human environment comes more to the forefront The home, clubs and other human contacts can directly affect the work situation.

Given the fact that ethnic interactions are inevitable, it is important to know how young Bougainvillian students think about living and interacting with the non-Bougainvillians. How far can Bougainvillians accept and tolerate the non-Bougainvillians? What is the limit to social assimilation or is there any limit? Does assimilation mean accommodation, tolerance, acculturation, social acceptance, convergence of norms or distinctive self-identification? Do the Bougainvillians have a monistic, pluralistic or interactionist

frame of reference (Taft 1953)? All these are salient questions in predicting the young Bougainvillian's adaptation to the demands of a monetary economy, particularly in a multi-racial working situation. For it may be hypothesized that the more one feels prejudiced against a certain group of people, the more it is likely to be difficult to interact successfully with that group. This in turn is likely to impede a successful participation in the monetary sector of the economy in relation to both quality and quantity of production of economic and social goods.

In this study social assimilation was expected to be fostered by a number of variables, e.g. prior attitudes towards minority ethnic groups, and the perceived distinctiveness of ethnic identity of the receiving society (in this case, Bougainville society). Accordingly, the Bougainvillian students were classified by degree of attitudinal acceptance or rejection of minority groups on the basis of two different kinds of data in combination:

1. Responses to six structured social distance questionnaire items²⁰ referring to Papuans, New Guineans (mainland New Guinea excluding Highland districts), Highlanders (representing Chimbu, Eastern Highland and Mt Hagen districts) and 'whites' or Europeans.
2. Spontaneous comments revealing underlying attitudes to minority ethnic groups and the perceived distinctiveness of Bougainvillian identity *vis-à-vis* the non-Bougainvillians. These were elicited from the short essays written by the students.²¹

²⁰ These items are adapted from Mann's Social Distance Scale. The six agree-disagree items were:

1. I do not mind marrying one.
2. I would not marry one, but I would be willing to invite one as a guest for a *Kaikai* at my house.
3. I do not like one to be my guest for a *Kaikai* at my house, but I do not mind talking to one when I meet him/her in the street or in the market.
4. I prefer to have nothing at all to do with one.
5. I wish someone would kill all of them.
6. I do not know much about them; so I cannot tell anything about them.

²¹ The students were asked to write short essays on the following topics:

It seemed likely that unguarded, spontaneous comments elicited by such essays, in combination with a structured questionnaire would provide a relatively sensitive and reliable measure of attitudes and self-identity.

The combination of these two types of responses was effected by sorting out first the respondents who, in their spontaneous comments in the essays, revealed their underlying attitudes towards minority ethnic groups. Among such (a) those who spoke only favourably of minority groups, and who similarly gave favourable replies to at least five of the six structured items of the social distance scale were placed in the positive or 'tolerant' attitude category; (b) those who spoke only unfavourably of minority groups and who similarly gave unfavourable replies to at least five of the six structured items of the social distance scale were placed in the negative or 'prejudiced' attitude category; and (c) all others spontaneously commenting favourably or unfavourably, or both, and giving 'mixed replies' (two favourable and three unfavourable, or vice versa of the first five items in the social distance scale plus accepting or rejecting the sixth item of the scale) were placed in the intermediate or 'ambivalent' category.

Secondly, respondents who did not spontaneously reveal attitudes towards minority groups were classified only on their replies to the structured items as follows:

- (a) four or five favourable replies - positive or tolerant;
- (b) three or four unfavourable replies - ambivalent;

21 (continued)

1. If you went to Port Moresby and met a 'white man' or European who had never before seen a Bougainvillian and he asked you about the Bougainvillians, how would you describe them? Include how the Bougainvillians look, how they live, and how they behave, etc.
2. The same as (1) but when inquired by a non-Bougainvillian Papua New Guinean.
3. If you met a friend in your village who had never before seen a 'white man' or European, how would you describe him? Include how the 'white man' looks, how he lives and how he behaves, etc.
4. Same as (3) if you were asked about a non-Bougainvillian Papuan and a New Guinean separately.

- (c) four or five unfavourable replies - negative or prejudiced.

It is clear from Table 3.9 that the Bougainvillian students were prejudiced more against Highlanders than against the other minority ethnic groups. If there were a hierarchy in degree of social acceptance, New Guineans seemed to be most acceptable to the Bougainvillian students, followed by Papuans, Europeans and then Highlanders. In fact, it was only in relation to Highlanders that a relatively large number of Bougainvillian students agreed to the most extremely aggressive item of the social distance scale, that is, 'I wish someone would kill all of them', while a very negligible proportion of respondents felt the same way in relation to other minority groups.

Between the Kieta and Buin students, the social acceptance of Papuans, New Guineans and Europeans was significantly more pronounced among Buin boys than Kieta boys. On the other hand, prejudice against Highlanders was significantly stronger among Buin boys. Between the girls of the two subdistricts, there were no significant differences in the degree of social acceptance of the non-Bougainvillian groups except in relation to Europeans who were significantly more acceptable to Buin girls than to Kieta girls. In general, girls seem to have more favourable attitudes towards Papuans, New Guineans and Europeans, but at the same time they were more strongly prejudiced against Highlanders. It must, however, be emphasized that the kind of social acceptance that was demonstrated by the students' response was far short of what is meant by social assimilation;²² it simply meant a kind of tolerant relationship, which purported accommodation of the minority groups without social intimacy and congruence of norms. The probable reasons for such ambivalent tolerance are discussed in detail in relation to adult villagers in Chapter 4.

²² Social assimilation was operationally defined in this study as the process whereby, as a result of social interaction, a person transfers his membership from one group to a second group whose norms are inconsistent with those of the first. This definition signifies changes in one individual in relation to his group memberships, but where the interaction occurs between powerful or large numbers of members of the two groups, the result may be the formation of a new all-embracing group; that is, all of the interacting persons 'assimilate'. See Taft (1953) for further discussion on assimilation.

Table 3.9

Students' attitudes towards non-Bougainvillians* (%)

	Papuans	New Guineans	Highlanders	Europeans
<u>Kieta boys (n=198)</u>				
Tolerant	56	60	26	42
Prejudiced	18	12	64	18
Ambivalent	26	28	10	40
<u>Kieta girls (n=79)</u>				
Tolerant	63	72	11	49
Prejudiced	12	10	80	16
Ambivalent	25	18	9	35
<u>Buin boys (n=203)</u>				
Tolerant	72	76	1	57
Prejudiced	13	4	86	23
Ambivalent	15	20	13	26
<u>Buin girls (n=116)</u>				
Tolerant	74	74	3	65
Prejudiced	7	4	82	16
Ambivalent	19	22	15	19
Between Kieta boys and Buin boys	26.03**	14.93**	53.55**	8.64***
Between Kieta boys and Kieta girls	2.01 NS	3.78 NS	7.45***	1.28 NS
Between Kieta girls and Buin girls	2.76 NS	2.70 NS	5.68 NS	8.65***
Between Buin boys and Buin girls	3.11 NS	3.04 NS	2.67 NS	5.84 NS

* χ^2 values were calculated to test whether response patterns differed according to different groups of samples.

** Significant at 0.01 level.

*** Significant at 0.05 level.

NS Not significant.

For the present suffice it to say that the Bougainvillian students would shed or don other ethnic minority groups like a coat, not like a skin, and if possible they would shed first Highlanders followed by Europeans, Papuans and lastly New Guineans.

The fairly tolerant attitude of the Bougainvillian students towards other ethnic minority groups was clear from their expressed feelings of Bougainvillian identity. In fact, social assimilation and distinctive feelings of self-identity are closely related aspects of social behaviour. The optimum sequence for the assimilation of an immigrant minority might commence with accommodation to the assumed behavioural requirements of the majority host group and conclude with identification and convergence of norms. It may therefore be hypothesized that the more strongly and distinctively one identifies oneself as separate from other groups, the more will it be difficult for convergence of norms, thus limiting social intimacy and interaction. How strongly did the Bougainvillian students feel about their 'Bougainvillianness'? Did they feel that they were distinct from the non-Bougainvillians and in what respect?

Whether or not they were from Kieta or Buin subdistricts, almost all the students had a clearly distinct image about Bougainvillians differentiating themselves from Papuans, New Guineans and Europeans. The most important distinctive characteristics of the Bougainvillians perceived by the students were: skin-colour and other physical characteristics (e.g. hair, height, etc.); peacefulness and other behavioural characteristics (e.g. friendly, smart, humane, kind, law abiding, etc.); and the living conditions and social customs (e.g. housing, village leadership, marriage customs, food habits, etc.). How deep this distinctive self-identity was became clear from the responses of the students who were asked to describe a Bougainvillian to a Papuan, or to a New Guinean or to a European who had never seen a Bougainvillian before. Whether describing to a Papuan or to a New Guinean or to a European, almost all students answered in a way similar to the following:

Bougainvillians are a very different people. We have very black skin-colour, darker than any other groups of people who are 'red-skin' people. Bougainvillians do not fight like other Papua New Guineans; we are peaceful people. Most of the Bougainvillians live in the villages and they do not like to migrate to other districts of Papua New Guinea; they grow plenty of foods in the garden. They follow their leaders.

The most striking aspect of these responses was the similarity of the descriptions given to the Europeans and to the Papua New Guineans in the question. To sum up, the distinctive image of Bougainvillianness as perceived by the students was: 'a beautiful black people who are peaceful and law abiding as against a violent, unlawful and immoral red-skin people'. Between the students of the two subdistricts, however, the Buin students seemed to be more specific about the distinctiveness of Bougainvillian characteristics than the Kieta students.

The two most conspicuous and repeatedly mentioned characteristics in the sense of cultural identity in contrast to other minority ethnic groups were the skin colour and peaceful nature of the Bougainvillians. Not only were they conscious of their sharply contrasting skin colour, they also seemed to be proud of the purity of it.

There had been a conspicuous increase in intertribal fights, killings and general lawlessness in Bougainville with the development of the copper mine and intrusion of migrant labour. In most cases this general lawlessness and fighting involved migrant labour from other parts of Papua New Guinea, particularly Highlanders and Tolais. Momis and Ogan (1972: 108) had observed, 'By 1950, in sharp contrast to the New Guinea highlands Bougainville enjoyed peace and relative social calm, free from endemic homicide'. Consequently, this apparently contrasting experience between pre- and post-copper mine periods reinforced the picture of the relatively violent and lawlessness nature of non-Bougainvillian Papua New Guineans in the minds of the Bougainvillian students; they simply identified the migrant Papua New Guineans, particularly Highlanders, as rootless job-seekers and trouble-makers 'who invaded this peaceful land'. Additionally, Bougainvillians in general tended to look down upon those who had to migrate to earn their livelihood, which they thought implied inefficiency, and worthlessness of the migrants' home territory. This kind of social stigma attached to migrant job-seekers has made it convenient for the Bougainvillian students to believe that the migrant Papua New Guineans, especially Highlanders, were so devoid of self-respect that 'they would do the lowliest kind of "menial dirty job" ranging from "house-boi" to "drain-digging"'. In fact, the 'dirty menial jobs' were identified as the profession of Highlanders only. On the other hand, the Bougainvillian students often thought the migrant Papua New Guineans and Europeans were parasites in their country in the sense that they created severe competition in the desirable job-market within the district,

plundering much of their wealth.

As far as the Europeans were concerned, the commonly held image of the Bougainvillian students was that the 'Europeans are English-speaking white men with straight hair, well dressed, clean, smart, handsome, very rich, work in office or mine in high positions, live in good house, have car and "house-boi", different food habits with store-bought food (not self-grown garden foods), have better technical knowledge, etc.' This assessment seemed to be made by the Bougainvillian students with a pinch of envy and chagrin, revealed in their descriptions of Europeans as those 'who are proud of their wealth and knowledge, selfish and arrogant, can be very rude and violent sometimes, becoming rich by looting our wealth, etc.' Many students also included in their descriptions their hopes for the future by implying that the Europeans should be driven out of Bougainville as soon as it became independent.

It was interesting to note that in spite of the distinctive self-identity, about 20 per cent of the Bougainville students reported some similarities between Bougainvillians and Papuans and New Guineans, while only 4 per cent of the students reported some similarities with Highlanders and Europeans. It was, however, clear that much of their distinctive cultural identity or 'Bougainvillianness' was the result of their comparative experiences in the immediate social environment rather than any studied knowledge of the culture of the minority groups. Consequently the whole concept of distinct Bougainvillianness was greatly influenced by the prevailing nationalistic feelings. But the fact remained that in spite of a sharp distinction between Bougainvillians and other minority migrant groups, the Bougainvillian students by and large preferred to be either tolerant or ambivalent rather than prejudiced towards Papuans, New Guineans and Europeans. The only group against whom a majority of the students were committedly prejudiced was the Highlanders.

Achievement, affiliation and power motivations

Once the basic physiological and security needs are fairly well gratified, the needs for achievement, affiliation and power assume importance in human life. Given the level of satisfaction of the basic needs in the prevailing economic situations of Bougainville, how intensely do the Bougainvillians strive to satisfy these other three needs? This is an important question for understanding the Bougainvillians' response to new economic opportunities and

their striving to succeed in the monetary economy. A number of recent studies (see, for example, Atkinson 1958 and McClelland 1961) have shown that the achievement motive is positively related to human behaviour, particularly entrepreneurship and the response to economic opportunities. For example, a high achiever prefers moderate risk to high and low risk situations; he is confident in predicting his performance; and he likes taking personal responsibility for his actions. Similarly, the persons with high *n* affiliation tend to be 'approval-seeking', to 'select faces rather than neutral stimuli in a perceptual task' (Atkinson and Walker 1958), to be considered likely to succeed by peers (McClelland *et al.* 1958), and choose friends over experts to work with them on a performance task. On the other hand, *n* power is a concern 'with the control of the means of influencing a person' and as McClelland (1961) postulated, 'what *n* power does appear to be related to, as might have been expected, is the political means used to achieve economic or other ends. In particular, a combination of low *n* affiliation and high *n* power is very closely associated with the tendency of a nation to resort to totalitarian methods in governing its people'.

It was with this background of hypotheses relating to human behaviour that the achievement, affiliation and power motivations of the Bougainvillian students were analysed. To this end some 4,172 TAT (Thematic Aperception Test) results of 596 Bougainvillian students were analysed and the motivational components extracted. The TAT administered individually to the respondents consisted of seven pictures. These pictures were developed and used in a way similar to studies in other parts of Papua New Guinea.²³ The means of scores obtained by the different groups of students are given in Table 3.10.

In all the three motivational components the Kieta students scored significantly higher than the Buin students. In other words, the Kieta students, both boys and girls, had a higher motivation to satisfy their needs for achievement, affiliation and power than those from Buin. On the other hand, there was no significant difference between boys and girls within each subdistrict in relation to *n* Affiliation and *n* Power, although the boys were significantly higher achievers than the girls in each subdistrict.

²³ Following the scoring system developed by McClelland *et al.* (1953), each respondent was scored for achievement (*n* achievement), affiliation (*n* affiliation) and power (*n* power) motivations.

Table 3.10

Motivation patterns of Bougainville students (mean scores)

	n Affiliation		n Power		n Achievement	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
A. Kieta boys (n=198)	2.69	3.25	13.44	7.60	8.15	6.55
B. Kieta girls (n=179)	2.76	3.50	13.00	6.90	4.40	6.75
C. Kieta students (boys + girls) (n=277)	2.71	3.33	13.30	7.47	7.08	6.64
D. Buin boys (n=203)	1.59	2.87	12.63	7.66	3.98	6.27
E. Buin girls (n=116)	1.43	2.48	12.45	7.05	2.49	4.50
F. Buin students (boys + girls) (n=319)	1.53	2.07	12.57	7.46	3.44	5.73

Mean differences	d.f.	n Affiliation		n Power		n Achievement	
		t	p	t	p	t	p
A - B	275	1.03	>.05	1.65	>.05	3.31	<.01
A - D	399	3.16	<.01	2.17	<.05	5.52	<.01
B - E	213	2.68	<.01	3.89	<.01	3.01	<.01
D - E	317	1.13	>.05	1.33	>.05	2.01	<.01
C - F	594	4.20	<.01	4.19	<.01	6.31	<.01

The results of the TAT indicated that the achievement and power motivations among the Bougainvillian students were at a much higher level than the need for affiliation. In view of the students' intense nationalistic feelings of 'Bougainvillianness' and their conservative attitudes towards social assimilation of migrant minority groups, a relatively low affiliation motivation seems paradoxical. One reason could be the kinds of TAT pictures used to measure motivational pattern. All seven pictures in the TAT were a vague depiction of contemporary culture-contact situations in Papua New Guinea which were probably biased in favour of response towards n Achievement and n Power. In the prevailing culture-contact situation of Bougainville in which nationalistic feelings were intense, need for affiliation was likely to be fairly satisfied in terms of national identity or feelings of 'togetherness' among Bougainvillians. As a result, one might expect the discontent and restlessness (i.e. needs) of the Bougainvillians would be more intense towards achievement, adequacy, mastery, competence, dominance, recognition, attention and appreciation, or simply for achievement and power. Therefore the culture-contact situations depicted in the TAT pictures provided the right kind of stimuli to reflect motivations for achievement and power rather than for affiliation. It was the perceived supremacy of the Europeans in relation to wealth, knowledge and politico-administrative power which became an element of competition with a 'standard of excellence', and achievement of this European 'standard of excellence' was considered to be the means to acquire the desired political power or dominance and recognition. In fact, this was one of the recurrent themes in the TAT stories of the students, e.g.:

A group of men are talking with a European. The men may be a group of village men with a government officer. The men may want to start some sort of a business and they are asking for advice. If the villagers think that they can do all the work by themselves, they will kick the European out (quoted verbatim from the response of a Form 4 Buin boy).

Whatever might be the reasons for the Bougainvillian students' greater concern for achievement and power rather than affiliation, it seems to prove McClelland's (1961:166) proposition that 'Apparently in more recent times a concern for affiliation relationships with people has meant less concern for achievement'. On the other hand, it was disturbing to note a combination of low n Affiliation and high n Power among the students, which, according to McClelland's (1961:168) observation, indicated totalitarian

tendencies. Given the traditional norms of leadership patterns based on consensus rather than politico-administrative-legal power, it is difficult to imagine Bougainville as a totalitarian 'police state' in the foreseeable future. This is not to suggest that growth of powerful 'charismatic' leadership with a wide-ranging following is not possible in Bougainville. In fact the students clearly indicated in their TAT stories as well as in their distinguishing Bougainvillians from non-Bougainvillians that they were proud of following their leaders, particularly when the leaders were strong and powerful. But the acceptance of a powerful leader does not necessarily mean succumbing to or accepting a totalitarian system. The acceptance or growth of a totalitarian system will depend on a host of intervening variables such as the socio-economic-political situation prevailing at the time, strength or weakness of traditional values and norms, personality of the leaders etc. Pursuing the same argument, one might as well suggest that the attitudes of a strong nationalistic leader could have immense influence on the Bougainvillian students in their response to participating in the monetary economy.

One of the most frequently mentioned achievement imageries in the stories of the students was owning or starting a business either as an individual enterprise or as a group or co-operative enterprise. As noted in an earlier study (Moulik 1973:218), owning business enterprises was one of the most preferred and prestigious occupations in Papua New Guinea, not merely based on economic considerations, but on socio-political considerations as well. Until recently business enterprises in Papua New Guinea have been almost exclusively reserved for non-indigenes, e.g. Europeans and Chinese. This was as true in Bougainville as elsewhere. With the upsurge of nationalistic feelings and political development it was natural for the Bougainvillians to compete for business enterprises as a move to indigenize this sector. Also there was an element of invidious comparison between the shares of indigenes and non-indigenes in the business sector. Furthermore, with the existing level of education and resources, owning a business is probably the only path to status mobility for the majority of Bougainvillians. Business is therefore considered a prestigious occupation, easy to enter, at least at a low level, with medium risk and with fair probability of success. In fact, the business enterprises imagined by the students mostly followed the relatively familiar line in which the Bougainvillians had the opportunity to learn about business at first hand, e.g. trading of cash crops, truck transport, retail trade store, etc. This point is nicely illustrated by the

following story written by a Kieta Form 3 student:

It is always a good idea to co-operate with people and work together. Sometimes a group of people would like to purchase a car to help them with their business. This is a good idea because a man by himself can't afford to buy a new car. If they want to start a co-operative business of cocoa with many members involved in it, they should contact somebody who knows more about the business before going ahead, e.g. Business Development Officer. After getting enough information and capital, then they would start a successful business. If a person wants to become a member of the co-operative he would go and see the Director. In co-operative each member receives a dividend. This is paid after a business had made enough surplus. They will be able to start a very successful co-operative business, and they would no more depend on the Europeans.

Achievement motivation was not only related to the choice of business enterprises, but also to the students' occupational preferences in the wage employment sector. Assuming that occupational preferences are related to ability or opportunities to succeed in the occupation, then the students with high n Achievement should prefer middle-level occupations representing 'moderate risk' for them. In other words, the high-achievers should have a lower estimate of their probability of success at high-level occupations rather than an over-estimate of the probability of success.

In order to test the above-mentioned hypothesis a two-way classification of the level of occupations on the one hand and the n Achievement scores on the other was done (see Table 3.11). The students' expected occupations (see Table 3.5) were classified into three levels - low, medium, and high - according to the prestige rankings given by the students themselves. Thus, the first three high-ranking occupations were grouped as high-level occupations, fourth to eighth ranking occupations were medium-level and those ranking ninth and lower were considered low-level occupations. Likewise n Achievement scores of the students were classified into two categories, low and high, on the basis of mean n Achievement score and standard deviation. The mean n Achievement score of the total sample of students ($n = 596$) was 5.13 with 6.47 as standard deviation. Mean + 1 Standard Deviation (i.e. $5.13 + 6.47 = 11.60$) was taken as the cut-off point between low and high levels of achievement motivation. In other words, the students scoring above 11.60 in n Achievement were considered high achievers and the

students scoring below 11.60 were low achievers.

Table 3.11

Expected levels of occupation by levels of
n Achievement (%)

Levels of n Achievement*	Levels of occupation**			Total	X ² value at 2 d.f.
	High	Medium	Low		
<u>Kieta students</u>					
High (n = 133)	6	78	16	100	) 75.80***
Low (n = 136)	51	31	18	100	
<u>Buin students</u>					
High (n = 99)	11	84	5	100	) 154.56***
Low (n = 201)	58	11	31	100	

* The students who did not specify their expected occupations were excluded from the analysis.

** High level occupations were doctor, teacher, political leader, and engineer/scientist; medium level occupations were nurse, mechanic, government officer, clerk/typist, Army/Air Force/Navy, police; and low level occupations were BCP job, factory worker, store assistant, farming.

*** Significant at 0.01 level.

It was observed among all students that the high-achievers consistently and significantly tended to expect medium level occupations rather than high or low level occupations. The low-achievers on the other hand tended to prefer either high (mostly) or low level occupations, indicating either over- or under-estimation of the probability of success. Since proportionately there were more low achievers among the Buin students than among the Kieta students, our earlier observation seems to be reinforced that the Buin students were more unrealistically ambitious in their career aspirations than Kieta students.

It would be interesting to see how the Bougainvillian students compare with the students from other parts of Papua New Guinea in their motivational pattern. Unfortunately there was no comparable data on n Affiliation and n Power for

the students from other parts of Papua New Guinea. On the other hand, the same TAT pictures were used (Moulik 1973) to score n Achievement for the school students of Milne Bay, Madang and Eastern Highland districts, and the n Achievement scores of Bougainvillian students were exactly comparable with the data from these last-mentioned three districts of Papua New Guinea. However, in order to match the samples of respondents only the n Achievement scores of the students of Administration schools of the three districts were considered, mainly for two reasons; firstly, in the earlier study (Moulik 1973) of Milne Bay, Madang and Eastern Highland, Administration school students scored significantly higher in n Achievement than the Mission school students; secondly, except Tumuru Primary School at Tumuru Mission station in Kieta subdistrict, all other schools in the sample of Bougainville students were Administration schools, and even the Tumuru Primary school was governed practically fully by the Administration rules and regulations.

Table 3.12

Mean n Achievement scores by groups of respondents

Students from	Cases	Mean	Standard deviation
Milne Bay district	66	5.61	5.09
Madang district	52	7.49	6.57
Eastern Highlands district	40	6.72	4.80
Kieta subdistrict	277	7.08	6.64
Buin subdistrict	319	3.44	5.73

It is interesting to note in Table 3.12 that the Buin students scored lowest of all groups of students, while the Kieta students were almost at par with the highest ranking Madang and Eastern Highlands students.

It is difficult to provide adequate reasons for the observed differences in the levels of n Achievement between Kieta and Buin students. Why was it that the Buin students scored lowest n Achievement among all groups of students mentioned in Table 3.12? Was it because of the similarity

of socio-economic situations that the Kieta students, and those from Madang and the Eastern Highlands, scored equally high n Achievement? Although these questions were beyond the scope of the present study, they are nevertheless relevant to it. Drawing on Moulik (1973), it could be suggested that the differences in factors such as opportunities to achieve levels of resources, linkage with the advanced economy, population density, travel, social structure and social norms and other intrinsic cultural factors were likely to explain in part the differences in n Achievement levels between different groups of students. In addition, it could also be suggested that it was the Kieta subdistrict that had the relatively more intimate experience of the 'shock' of copper mine development, and thus experienced a mixture of challenge and opportunity not available to Buin subdistrict. This could be one of the reasons for higher n Achievement among the Kieta students who were also coloured with more intense nationalistic feelings than the Buin students. These points will be further discussed in the next chapter in relation to adult villagers' n Achievement. For the present it should be noted that whatever might be the reasons for low n Achievement among the Buin students, the level of achievement motivation by itself was not positively related to their commitment to participate in the monetary sector of the economy, particularly in wage employment. In spite of a relatively low level of n Achievement the Buin students demonstrated greater attitudinal commitment to wage employment in terms of preferences for town living *vis-à-vis* village living than their counterparts in the Kieta subdistrict. Also, the larger proportion of Buin people among the Bougainvillian employees in BCP as compared to Kieta people throughout the period of copper mine development tended to confirm this commitment.

Appendix 3.1

Reasons for preferring town living* (% respondents)

	Kieta			Buin		
	Boys (n=40)	Girls (n=12)	Boys + Girls (n=52)	Boys (n=74)	Girls (n=36)	Boys + Girls (n=110)
Education facilities	-	-	-	6	-	4
Hospital facilities	3	-	2	-	15	4
Wage employment/ business opportunities	46	83	51	34	57	43
Opportunities to earn more money	19	-	16	21	15	18
Entertainment facilities	3	-	2	5	7	6
Communication facilities (transport, wider contact, etc.)	17	-	14	5	6	7
Simple preference (reason not specified)	12	17	15	29	-	18
Total	100	100	100	100	100	100

* Some respondents mentioned more than one reason for their preferences. The data are presented in the table by taking the total number of responses as 100 per cent for the respective groups (or columns).

Appendix 3.2

Reasons for preferring village living* (% respondents)

	Boys (n=133)	Girls (n=64)	Boys + Girls (n=197)	Boys (n=91)	Girls (n=72)	Boys + Girls (n=163)
Safe/peaceful/ easy life	14	8	12	21	22	20
Inexpensive	23	14	21	22	27	22
Safe from traffic accidents	4	-	3	1	5	8
Able to help and live with parents	21	26	23	4	12	6
Help/teach/villagers	17	6	14	15	7	10
Able to look after farming	14	6	12	25	20	25
Town people not good (trouble makers, thieves, fighting, alcoholism, sexual promiscuity, no helpful attitudes in town)	-	3	1	4	7	4
Simple preference (reason not specified)	7	37	14	8	-	5
Total	100	100	100	100	100	100

* Some respondents mentioned more than one reason for their preferences. The data are presented in the table by taking the total number of responses as 100 per cent for the respective groups (or columns).

Chapter 4

Adult villagers: the home environment

Village households, combining the roles of consumer and producer, are the basic units of the subsistence economy and are therefore of central importance in studying the impact of the external economic forces of the exchange economy on the people of Bougainville. From the viewpoint of the indigenous people, farming (i.e. subsistence food and cash crop production) is the main alternative to wage employment, which may now be available, not only in the mines and plantations, but also in manufacturing industries and other commercial ventures. Thus the major process of social change in Bougainville, by which labour from the subsistence economy is or will be drawn into wage employment and business enterprises, cannot be studied without taking into account the motivational patterns of the self-employed peasant producers (both subsistence and cash crop production) including the village elders.

The analysis of present farming patterns, opportunities (or lack of them) to work for wages, opportunities for setting up in business, and of income and consumption patterns, presented in Chapter 2 have already given a rough impression both of actual living conditions in the villages and of the response pattern of the Bougainvillian villagers to economic incentives offered through the money economy. It may be emphasized here that the essential facilitating factor which helped the Bougainvillian villagers into cash crop production and the money economy was the existence of a considerable margin of surplus productive capacity in the form of both land and labour over and above their minimum desirable subsistence requirements. Clearly, the level of subsistence economy obtaining in pre-contact Bougainville did not necessarily mean that the people within it were struggling at the 'minimum subsistence level'; rather, it was what Fisk (1966:23) described as 'subsistence affluence'. With this margin of surplus productive capacity available within this 'affluent subsistence' sector, the Bougainvillian villagers could take

to the production of cash crops without reducing their subsistence output. In other words, participation of the Bougainvillian villagers in the monetary economy commenced typically with the utilization of some of their surplus labour, either by producing a little extra for the market, or by reorganizing their labour to make it possible for some workers to move to full-time wage employment (at least for a certain period of time) or by starting business enterprises (mainly as a subsidiary activity). The object of such excursions into the market economy has been the acquisition of non-essentials that they cannot themselves produce and often the ultimate aim is to use the resources of the monetary sector to climb the ladder of social prestige. It is in this context that adult villagers representing the village households play the crucial role of decision-making in allocation of household labour into various sectors of the economy, depending on the perceived opportunities (or lack of them), their own aspirations, attitudes and motivations. On the other hand, in this whole process of decision making the village elders create a home-like environment characterized by paternal attitudes and aspirations which are dominant influences in the motivational pattern of the young. For, as McClelland (1961:415) reported, 'the crucial period for acquiring n Achievement probably lies somewhere between the ages of 5 and 10' and this is precisely the developmental stage of the children when home environment is most immediately relevant and important. In a tribal social framework such as Bougainville, home environment assumes particular importance for the simple reason that it is in the tribal environment more than anywhere else that the tribe, the household, the family, kinship, the tribal rites and requirements form a systematic pattern of living, a predetermined organization of social contacts, and a behavioural frame of reference for individual development of the child.

Thus, among other things, the study of motivational patterns of the adult villagers of Bougainville is useful and important for two main reasons: firstly, it will indicate the preparedness of the active decision makers for successfully participating in the exchange sector of the economy; secondly, it will provide a scenario of the home environment which influences the young Bougainvillians in their future response to the monetary economy.

With these twin aims in view, samples of 225 village elders of Kieta subdistrict and 228 from Buin subdistrict were investigated in the present study. All these village

elders were adult male members representing the active decision makers of the individual village households. They were all married and above thirty years of age. Given the data about the young school-going Bougainvillian students, it would have been ideal to follow up with the study of the adult villagers among the households of the sample students. It would then have been possible to observe the direct influence of the home environment on the motivational pattern of the young Bougainvillians discussed in Chapter 3. However, the time constraint of the present study prevented such ideal follow-up. Not only was it difficult and time-consuming to cover the households of the sample students, widely dispersed over a large number of villages, but it was also impossible for a single researcher to gain anthropological insight into a large number of village communities within a limited time. Instead a small number of villages were selected from each of the two subdistricts and a fairly large proportion of the village households in each of the study villages was covered in the investigation of adult villagers (see Tables 1.8 and 1.9). Because of the limited number of sample villages in a subdistrict and a large coverage of the village households, it was possible to approach that level of understanding of the village communities essential for studying motivational patterns of the individual village elders. In the process, however, the selected village households included 7 per cent of the Kieta sample students' homes and only 3 per cent of the Buin students' homes.

There was one more serious limitation in the sample of village elders investigated. Ideally one would like to include both father and mother or their equivalents in studying parental influence on young children. It was not easy for me, a male, to establish adequate rapport with the illiterate tribal female members of the village households; there always remained a communication barrier, and this inhibited dialogue and interaction. But it would be wrong to suggest that during the whole period of about one year's fieldwork in the villages a workable rapport could not be established with some adult female members of the households. In fact, in almost all the study villages there were at least a few village women with whom good rapport was established. But the number of such adult women (or mothers) was too few to be treated as a separate category in the sample of village elders. However, the information obtained from these few women enriched the understanding of the home environment of the village communities and brought a new perspective to the study.

Conceptually it can be assumed that the adaptive response of the Bougainville villagers towards the exchange sector of the economy is not an isolated phenomenon, but is rather the product of certain underlying attributes of the personality. Personality patterns apparently make a person more or less susceptible to influence in a wide variety of situations, whether the influence arises from the structure of the external field, from interaction with other persons, or from within the immediate social environment.

What kind of personality has the Bougainvillian man? Obviously, there is a wide range of personality types among the adult Bougainvillian villagers; no one category will hold. But certain traits are commonly repeated in the personal makeup of the Bougainvillian men which are more apparent in their social behaviour and which by their frequency of occurrence distinguish them, even for a casual observer, from the other Papua New Guineans around them.

In presenting the personality profile of the adult Bougainvillian man I am mainly dependent on my experiences and observations through the normal processes of social interaction with many individuals in various situations during my stay. In other words, what follows here in the discussion of personality component of the Bougainvillian men is what Wallace (1952) called the 'cultural deductive method'. In addition wherever possible an attempt has been made to support these observations by referring to and interpreting the implications of the relevant TAT-stories in order to isolate common factors of the general personality and to determine typical patterns.

Emotional involvement

The most apparent personality characteristic of Bougainvillian men that strikes even a casual observer immediately is their reserved and undemonstrative nature. In public the expression of joy or sadness or surprise that a situation might normally evoke is so suppressed that an outside observer can hardly make it out. This immense internal control of public demonstration of emotions by the Bougainvillians is probably the result of their strong desire to keep feelings private and to reveal them only under permissible conditions of intimate familiar surroundings. The following stories of my own experiences provide good examples of this characteristic:

Suddenly one morning in April 1974 the whole of Arawa town became aware that a highlander BCP worker had died at the district hospital. This young highlander had had an accident and after two days at the hospital died in the early hours of the morning. About 50 to 60 local highlander friends and relatives (both male and female) of the deceased assembled early in the morning at the small backyard of the casualty section of the hospital and started their great demonstrations of grief with a chorus of monotonous wailing and breast beating. The demonstration of grief continued for about three hours until the dead body was taken out for the funeral. The local people, unused to this type of display of grief, inevitably stopped; the hospital became a spectacle, and the whole hospital staff were in a hurry to hand over the dead body to the grief-stricken friends and relatives.

In contrast, a few months later a well-known Bougainvillian leader of Hahalis Welfare Society met with a serious truck accident on the trans-island road between Kieta and Buin. He was brought to the same district hospital, Arawa, where he died next day. Except for a few friends and Bougainvillian political leaders, the town people of Arawa came to know about the man's tragic death either by word of mouth or radio or next day's newspaper. There was no public demonstration of grief by the Bougainvillians at the hospital or anywhere in the town.

The second incident concerned the experience of the young wife of one of my American academic colleagues. On her first visit to Bougainville she was walking with her husband along the beach near Arawa town. On their long leisurely walk they met a number of Bougainvillian men, women and children from nearby villages. Every time my colleague's wife greeted the Bougainvillians with a broad friendly smile and said 'Hello! Where are you going?', she was received merely with a momentary stare, no change in expression. She was still more surprised when they visited a coastal village, taking rest under a tree after their long walk. They were there for a couple of hours but no villagers came to ask them any questions; even the children ignored their presence. She tried her best to be friendly with the villagers passing by only to be frustrated as before. She was utterly confused,

having been received so differently in other parts of Papua New Guinea, particularly the highlands.

One might explain this peculiar 'toughness' of the Bougainvillians in terms of racial hatred, particularly when my colleague's wife was a white woman. In fact, throughout colonial history incidences of bad race-relations between whites and indigene and the high-handed authoritarian decisions imposed on the indigene by the 'white' masters were not wanting. The Bougainvillian did not have a particularly happy experience of the white masters who treated him 'at the worst as a subhuman and at best as a well-meaning but ignorant child ...' (Oliver 1973:134). However this certainly does not fully explain their behaviour towards my colleague's wife. There is a general lack of flamboyance and openness among the Bougainvillians in their initial interactions with outsiders, be they white, black or brown in skin colour.¹ To any outsider, irrespective of race, if long enough resident in Bougainville, the reserved and undemonstrative social character of Bougainvillians becomes apparent. This strong internal control of emotions often takes the character of what might be called placidity which dissolves only in alcohol. Unless drunk the Bougainvillian maintains a calm exterior whatever he may feel internally. One can sense the emotional pathos of a drunken Bougainvillian man² in the following remarks:

¹ Being a brown Indian I faced similar reactions during the initial period of my fieldwork in spite of the fact that my extremely good relations with the accepted young Bougainvillian leaders were quite apparent. In some villages it took a sustained interaction for a month or two before a rapport could be established.

² He was one of those calm, reserved and unemotional Buin men who under normal conditions complained about the recent spread of drinking habits among the young Buin villagers. Except the day when he was drunk, he had been extremely restrained and calculating in his comments and talks with me during the whole fieldwork. He was one of those few men who seemed deliberately to avoid venting his feelings about BCP or white men. Yet, on the day he was drunk he voluntarily expressed his feelings of pride that he drank alcohol for the whole night. Perhaps my apparent surprise on seeing him drunk made him more emotional in rationalizing his drunkenness. What was disturbing, however, was the fact that some scheming European officials of BCP often tried to

Why! Why do I have to drink alcohol? We Bougainvillians never knew about alcohol! Alcohol is brought here by the BCP and white men and forced on us! We do not want it! We don't like it! What made me do this foolish thing? What to do with the money? We have a lot of money now. The white men not only changed our habits but changed the original village names also!

It would be quite wrong to suggest that unless under the influence of alcohol the Bougainvillians are stolid and do not feel deeply in the face of strong stimuli or deprivation. Just as alcohol dissolves the internal control, the Bougainvillian becomes emotionally involved in his fantasies in a direct, outspoken fashion. He fantasizes without any inhibition, and he lives his fantasy; he is directly associated with it; he makes very few attempts to divorce or dissociate himself from it, and he expresses his emotional involvement in it with verve and feeling.

Consider the following story (in response to a TAT picture), for example, of a 32-year-old Kieta man with standard 3 education:

A group of white men came earlier this year looking at rocks and stones. After a few months they found copper and they reported it to the district headquarters, but the village people did not know about this. After some months of arrangements with the CRA Company they agreed to mine the copper. So, after the agreement a patrol officer came to the village and told the villagers about it; he told them that they

2 (continued)

exploit this weakness of Bougainvillian character by offering them drinks in order to demonstrate their friendliness as well as to extract information about the feelings of the mine workers and political leaders which otherwise would not be available to them. In fact, the underlying purpose of such drink-party invitation by the European officials often becomes so glaringly apparent that some sensitive Bougainvillians were found to reject the invitation outright or avoid it deliberately. Yet, there were some clever Bougainvillian men who would beat the Europeans' design by simply giving all kinds of wrong information in the drink-party and then laugh about it amongst themselves.

would have to move from this area, but the villagers said that they were not prepared to do this. The patrol officer told them that the mining company would build for them European style houses and the villagers agreed. They wondered: What new things will happen! What changes they would have! What a great new way of life they will have! We got, of course, our European houses built. But nothing changed for the better! The Europeans became richer and richer! This is our land and mine, but we are only labourers in the mine! Why do the Europeans not leave this place and then we would dig our own mine!

As might be expected, criticism (sometimes irrational) reflecting prevailing frustrations about sharing the copper mines finds outlet in Bougainvillians' fantasy involvements - criticism which shows a thorough grasp of the recent history of land acquisition by the mine and related social problems. Similarly in the TAT stories one finds feelings of being deprived of their rightful share of wealth and nostalgic feelings of losing their happy traditional ways of life.

Internal conflict

Tribal tradition and custom die hard, even among the Kieta villagers around the mines. The Bougainvillian is proud of his skin colour and of his tribal name and affiliation. Thus, story presentations dealing with tribal customs and mores are often expressed with nostalgic feelings. Here is a typical example taken from a story told by a Kieta villager near the mine-site who had been working in the mine for six years:

It is Friday afternoon. The time of home returning. Tabu has just caught the pig on his trap. He carries it home for a special ceremony of wedding. He is very happy with his success in catching the pig. He is going to his home. Soon he arrives at his village home. The pig was killed and cooked in the 'mumu'. While the 'mumu' continued overnight, the wedding ceremony went on for the whole night till the next morning. Now that the wedding was over, everyone was enjoying the 'mumu'. He was very happy after the wedding. He will be praised and loved by all his relatives, friends and guests for the great 'mumu'

for his contribution to the wedding. This is our way of wedding ceremony. Tabu likes this way and he was sad that many Bougainvillians no more followed the same way!

But tribal affiliation being still the fundamental association amongst the vast majority of the Bougainvillians, detribalization is exemplified rather by the neglect and disuse of many traditional tribal folkways than by any absolute rejection of tribal customs and affiliation and a complete acceptance of the mores of the modern exchange economy. As a result, the personality of a Bougainvillian man is split with the conflicting demands of 'traditional environment' and 'modern environment'. On the one hand, he is almost pathologically nostalgic about the traditional customs of the past; on the other hand he is equally strongly desirous of the benefits of the exchange economy. It is almost a psychological rarity to find a completely tribal Bougainvillian or a completely detribalized 'emancipated' one. Hence, the present-day Bougainvillian man lives with apparent dilemma, bewilderment and contradictions, expressed as follows by a 40-year-old Buin man:

Okomi is the first man in the village to get University education. He wears smart European clothes. He is talking with his father, the chief man of the village. Okomi has just arrived from Port Moresby where he works as a clerk. His father is very happy and proud of his son's achievement, but one thing he is not very happy about is his son's dislike of the village customs. Okomi does not like marriage according to tribal traditions and similar other customs, because he has learnt about the European ways of life and he thinks they are better than the traditional ways. Okomi tried hard to change his village people to accept new ways of life. Finally Okomi succeeded in his efforts. But his father remained unhappy about the change in Okomi's behaviour.

As mentioned in a previous chapter, formal education in schools and universities is seen by the Bougainvillians as the answer to problems of status, recognition and wealth. The Bougainvillian, as revealed in the above TAT story, admires and desires education as a means that will enable his children to meet the future prepared for a good well-paid job; he also thinks that lack of education is the reason that Bougainvillians have to work hard as labourers and not as

masters. Education is strongly desired, but not so much the concomitant changes that threaten some of the traditional aspects of life. The Bougainvillians are not yet sure how much to trade off against what, neither are they clear about the inevitability of the concomitant changes. There is thus a streak of resignation to fate, be it of the natural world or of the larger social world, in the Bougainville character and when they see that a thing is inevitable they work out some kind of adjustment even though it means living with constant dilemmas and conflicts. Instead of squarely confronting the conflict, they often quickly accept it as a natural part of the environment, over which they have little or no control. Thus, although the copper mine momentarily upset the traditional life, it is now accepted as part of the natural landscape.

This psychological conflict is apparent not only with education but in almost all spheres of modern (or introduced) activities including Christian belief. The acceptance of Christianity by Bougainvillians of necessity implies the rejection of many established tribal customs. But, despite the intensity of Christian missionary efforts which have marked the history of Bougainville (see Oliver 1973:111-23), the tribal 'pagan' customs continue to manifest vitality everywhere. This is to be seen in the marriage customs, homage to ancestors, and the recourse to magic, sorcery, cargo-cults and other rituals. This, coupled with the great number of churches and mission stations, suggests that Christian conversion among Bougainvillians have been more successful numerically than spiritually. In explaining the reasons why Bougainvillians underwent conversion so readily and in such large numbers, Oliver (1973:117) rightly pointed out:

one should not overlook the fact that Christianity was for them not an entirely distinctive institution. It was but one aspect of the whole complex of new - European - objects and customs. And during the early stages of their encounters with the European way of life the latter must inevitably have appeared overwhelming. It was somewhat later, and then only sporadically, that the idea was born of selecting only some parts of the new to complement parts of the old.

Whatever might be the reasons for conversion to Christianity, Bougainvillians still very strongly exhibit a wierd mixture

of Christian faith and tribal custom. As one Buin villager revealed in his fantasy story:

The young man's pig has just broken the pig fence. The fence was refixed a month ago. By midday, after a long search, the young man found the pig just a few yards away from home of some people. So he said his magic words for the pig to come close. He ensured that no one saw him. He took his pig by the back legs and away he ran for his home.

About Bougainvillians' recourse to magic, Oliver (1973:64) argued:

Like prayer, magic helps mankind to relieve the anxiety that accompanies uncertainty in human enterprise. It is probably as old as mankind itself, and in some form will probably endure just as long.

In whatever way one might explain the Christian and Bougainvillians' belief in the supernatural, the fact remains that their personality is torn between the conflicting pressures externally applied by the mission on the one hand and tribal traditions on the other.

Money motivation

In spite of the apparent conflicts between the 'traditional' and 'modern' ways of life, Bougainvillians seem to have integrated a strong desire for 'money' - the prime symbol of exchange economy - into their personality structure. To most Bougainvillians it is the money which gives happiness to life; it makes life easier, enables one to gain power, respect and status; it solves many social and personal problems; and above all, it enables one to buy anything one wants and to satisfy one's desires. One of the fundamental motivations of a Bougainvillian is to have more money, to acquire wealth and to make life easy and happy. As one Buin villager begins his fantasy story (in response to a TAT picture):

In order to live happily a man must earn more and more money.

In fact, ambition in terms of increase in financial status and wealth are constantly recurring themes in the TAT stories

of the Bougainvillian villagers. Money and more money is the driving force in their work efforts, great wealth their constant ideal, the acquisition of money their basic motivation. The following extracts from the TAT stories make the point clear:

The man is pointing to a brand new truck that he has just bought a day before. He is so happy that he has invited all his friends and cousins to come along and see his new truck. The truck is in the garage. He has built that garage all by himself. He has invited his relatives and friends because he wants to show off his wealth. He thinks he is smart. He wanted to make money by running a truck business. In the future he will be the richest man of the area.

The man is very happy because the man he is working for is giving him his fortnight's pay for the hard work he has done. He wants to buy himself a Sanyo radio. In future he will work still harder and earn more and more money so that he can buy many other beautiful things that he wants to possess.

The man has just finished harvesting his crop. He sells fresh vegetables regularly at the weekend markets. He also sells his cocoa. He does this every day of his life - planting, harvesting and selling. He will soon make a large amount of money and then start a big business. When he grows old, life will be easier for him because he can live on his wealth.

Although these sample stories are characterized by pure desire for self-gain and by personal greed, some stories showed a broader social conscience:³

A group of villagers are talking about buying a new truck. They are all excited because they know if they buy that truck it will make it easy for the villagers to transport their cash crops to the wharf

³In all there were 3171 TAT protocols of 453 Bougainvillians villagers of which as high as 58 per cent had themes related to money motivation. Of the TAT stories with a money motivation theme, only about 17 per cent showed broad social conscience, while 83 per cent were characterized purely by self-gain.

or fermentery and to carry goods to the market. Peter, who is pointing his hand to the truck, is an administration driver. So, knowing how to drive, he is explaining to other villagers what useful jobs the truck can do for the village. The villagers agreed to buy the truck. Their business will grow up quickly in future and it will be a prosperous village.

It was the beginning of the week. The two men started clearing up the undergrowths of their cocoa plantation. They are working very hard because they want to make more money. They want to start a bus-service in the village so that the villagers can earn more money from bus-service business. Also, they thought that the bus-service would make the villagers life easy in travelling and transporting cargoes to the town. The bus business would be successful. Later on they would want to build a refreshment hall in the village for the visitors. The life would become easier for the villagers in future, as more and more service facilities would be created by the business profits.

Bougainvillians' ambition to acquire wealth is not merely wishful thinking. It is almost always linked in their minds with some activity, depending on their experience and available opportunities. What is most striking is the fact that even in their fantasies the means to acquire wealth do not vary greatly; transport business, cash cropping, trade stores, vegetable marketing and well-paid jobs for educated children. It is interesting that similar thoughts were observed among the young Bougainvillian students in Chapter 3. These thoughts on making money are only to be expected given the existing levels of knowledge and skill, past experiences, and the availability of resources and opportunities.

But it would be wrong to suggest that these limitations exclude the possibility of earning money through other socially acceptable means.⁴ The fact that the means to achieve increased financial status do not vary greatly, and

⁴There are, in fact, various possibilities already demonstrated in the area (such as poultry farming, cattle raising, exporting artifacts, ancillary services related to the mine, building contracting, etc.). Even though these money earning activities are demonstrably possible, they hardly occur in the fantasies of the respondents.

the fact that it follows almost a standard familiar line, suggest that Bougainvillians are not inventive and innovative. They tend to perceive the money earning opportunities in ways they have seen their own people use them and of which they have some knowledge. In other words, there is a tendency to take what the existing environment offers without trying to seek a better way, or to manipulate the environment.

Emotional attachment to land

It is this lack of innovativeness and a strong desire to earn more and more money that have made Bougainvillians extremely sensitive and emotionally attached to possession of land. For, to the Bougainvillian, land is the only immediately available resource which they have known for generations how to use to acquire wealth and money. Given this perspective, it is not very difficult to understand the strong reactions of Arawa and Rorovana villagers against the land acquisition by the copper mine. In fact, their sensitivity about and emotional attachment to land have reached such an extreme stage that even an innocent trespasser, particularly an outsider, evokes unnecessary suspicion and strong protesting reactions not normally found in other parts of Papua New Guinea.⁵ Land ownership rights have become

⁵ During initial familiarization visits to different villages in Bougainville I once encountered a strong protest from a villager. This particular village in Kieta subdistrict had already been visited by me and my family before and we had become familiar with many villagers and had become intimate with at least one important family. On my fourth visit I went alone to the village. It was around noon and hardly any adult villagers could be seen. Neither was our intimately known family at home. I started a story-telling session about India with a group of children assembled around me. After some time I expressed my desire to see the village gardens. The children were very glad to take me around a garden just adjacent to the village boundary. While going around the garden I saw a 'betel-leaf' creeper and told the children how we Indians chew the 'betel-leaf'. The children with usual generosity and enthusiasm climbed the tree to pluck some 'betel leaves' for me. Suddenly, a middle-aged man, the garden owner, started shouting at the children with angry looks. The children immediately fled away in fear. I tried to protect the children by saying that it was I who was responsible for entering his garden,

almost an obsession with Bougainvillians, particularly to Kieta villagers; so much so that even in their fantasies land acquisition by the copper mine is a constantly recurring theme. To illustrate, consider the following two stories by Kieta villagers:

The administrator of the copper mine company is in the village. The villagers are very much worried about acquisition of their land by the mine. The administrator is there to solve the villagers' problems about the land. He told the villagers that the company is going to pay for the use of their land. After the villagers got the money they bought some of the company's shares. Later they heard that most of the money earned from the mine is being spent for the capital city of PNG. They are now asking for separation of Bougainville and for autonomous District Government for Bougainville, otherwise the people whose land is producing the copper will get nothing.

When Bougainville copper mine came to Tom's land, Tom was worried and confused. He thought 'where am I going to plant garden and hunt?' Tom was almost crying to the company for not to touch his land. But the company wanted very much to dig the copper out of his land. So the company promised Tom that it will build him a proper house and would pay him \$1000 yearly. So Tom agreed and today he is getting his first year's money.

The traumatic experience of losing their traditional livelihood resource, land, to the copper mine is too recent and vivid to forget. There are genuine reasons to be deeply

5 (continued)

not the children. The garden owner went on shouting at me asking: On whose permission did I enter his garden? Is it legal? Would I allow anybody to enter my land without permission? No explanation from me would satisfy him. Ever afterwards I was extremely cautious. Only towards the end of my fieldwork in Bougainville did I find this particular land owner friendly towards me in the sense that he would give at least a smile whenever we met at Arawa market or shopping centre. By that time he probably had found out my credentials.

concerned about losing the land to the copper mine and anybody anywhere else would have been equally sentimental and concerned. What is most striking, however, is the fact that there is seemingly acceptance of parting from one's land, although it may be most reluctantly, at a certain price, that is, in exchange for some mutually agreed upon money-income. But Bougainvillians are not merely interested in the money-income from the land acquired by the copper mine for self gain only; they are also politically concerned about the mining profits being spent for development elsewhere. In other words, their traditional land rights on the copper mine area are emotionally linked with the prevailing political issue for the Bougainville district as a whole, and not just restricted to a concern for a few individuals or a group of individuals.

Anxieties and tolerance

Living as they do at present, with frequent interactions with Europeans, Chinese, Highlanders, Tolais and other Papua New Guineans, coupled with their past experiences, Bougainvillians obviously tend to develop certain ideas and attitudes about the question of race. Consequently, they have developed in their minds certain kinds of physical as well as behavioural stereotypes for all the non-Bougainvillian races. To a Bougainvillian it is conspicuous that he has a skin that is different from that of other Papua New Guineans, and maybe from rest of the races of the world. Bougainvillians, therefore, consider other races in a broad category of 'red-skin' people as compared to their 'blue-black' complexion. Towards these different people they commonly feel suspicion, distrust and fear. It is perhaps these feelings of suspicion and fear that permeate their personal interactions with strangers, exaggerating the natural Bougainvillian characteristic of unemotional and undemonstrative behaviour. The depth of this feeling of fear and suspicion is apparent from the following two TAT stories:

This is the first time for a local man of Genari village to meet an Australian man. The local man is dressed up in traditional ways. He met the Australian in his village. He felt very frightened because he could not understand the Australian - the way the Australian was dressed and the language he was speaking. Poor old man is just standing there staring at the Australian man.

About seven years ago there was a village in the bush. In this village only one old man lived. The rest of the people were already dead from a sickness which killed many people. One day while the old man was alone a stranger arrived in the village. The stranger saw the old man working outside his house. The stranger called him and told that he needed a house-boy for himself and asked whether the old man would like to work for him. At first the old man was trembling with fear, but the stranger told him not to be frightened because he could not kill or do any harm to the old man. The old man went with the stranger and lived happily ever after.

This kind of fear mixed with suspicion towards strangers in spite of long and close contact with various racial groups, particularly during the recent years of copper mine development, seems to be unwarranted, although it was not an unusual characteristic of Bougainvillians in earlier periods of contact history. The fact that the feelings of suspicion and fear towards strangers persist in fantasies even among the villagers under study (who had had an almost daily interaction with different migrant racial groups) a large majority of whom had had some years of wage-employment experience (see Table 2.6), does indicate a dimension of a deeper personality syndrome.⁶ One does not need to go very far in searching for the probable reasons for such feelings.

Firstly, their skin colour, traditional dress, manners, language, etc. are so strikingly different to those of Europeans, Chinese, and other non-Papua New Guinean races that it makes them immediately conscious of the difference and causes them uneasiness and uncertainty.

Secondly, their experience throughout the history of their interactions with other racial groups, although it may

⁶ It is perhaps this suspicion and fear that made the Bougainvillian villager extra-sensitive about my trespassing into his village garden. This also seems to permeate political life. In early May 1974, the District Constitutional Planning Committee meeting was held at Arawa and the Bougainville leaders deliberately did not allow any non-Bougainvillian (especially European) BCP employees to attend the meeting even as observers.

not always have been unpleasant, was very often marked by incidents of injustice and violence to the traditional ways of life. Apparently the more frequent unpleasant experiences have left a much sharper imprint in the minds of Bougainvillians than the occasional happy experiences. The kind of unhappy experience that keeps haunting them is obvious in the following fantasy of a Buin man:

One day, just after the World War II, a young European Patrol Officer came to a village. He shouted if there was anyone at home. There came a group of old men. These old men were very much surprised to hear what the European man was going to tell them. The Patrol Officer told them that he wanted some strong men to carry his things to another village which was about 9 miles away. The old villagers told him that all the young men of the village went to their garden work because they were going to organise a feast after a month, and therefore no young men would be available. The Patrol Officer became very angry and threatened to punish the villagers unless they carry his baggage. The old villagers had to follow his order and four of them carried his baggage to the other village. The luggage was too heavy for the old men, but the Patrol Officer would not leave them. One of the old men died ultimately out of exhaustion.

It was significant that such gruelling experiences with European Patrol Officers were repeatedly mentioned, particularly by the Buin villagers. Perhaps the isolated Buin area had had the misfortune to have the worst kind of Patrol Officers posted there.⁷

But it should not be construed that the unpleasant experiences of Bougainvillians in interacting with other racial groups are related only to the Europeans or Chinese or other non-Papua New Guineans. Bougainvillians have not generally had very happy experiences with other Papua New Guineans, particularly highlanders. Over the years Bougainvillians have come to believe (perhaps rightly so) that they are more peaceful law-abiding people than the people from other parts

⁷ Subsequently on checking with some knowledgeable Bougainvillians and some experienced people in administration, I found this hypothesis to be valid in general.

of Papua New Guinea, and especially than the highlanders. As one Kieta villager wrote in response to a TAT picture:

and the reason is that non-Bougainvillians cause too much trouble in the island which should be peaceful as it was when there were no non-Bougainvillians.

The third reason for their suspicion of other races could be the reinforcement of earlier unhappy experiences by current incidents. The initial experience with the copper mine (particularly land acquisition), increase in fighting or brawling among the migrant copper-mine labourers (mostly involving highlanders), increase in drinking,⁸ stealing, molesting, sexual assaults, and the visits of strangers in search of women - all these reinforced and strengthened their suspicion of the motives of strangers and aroused fear:

The leader of the village is talking to a stranger working in BCP. The stranger is asking the leader of the village whether he could have a girl for a night. He needed a girl to enjoy very badly. He would ultimately manage to get a girl and enjoy the night with the girl. When the villagers came to know about it they were feeling ashamed. In future they would not allow any stranger in the village.

Given the suspicion and fear on the one hand and the inevitability of the presence of different racial groups in Bougainville on the other, two kinds of psychological response could result from frustrations: aggression or apathy. Bougainvillians seem to have worked out some kind of adjustment between the two. Because of the strong internal control of emotions demanded by their social mores, and also because of their peaceful law-abiding nature, it is generally difficult to arouse Bougainvillians into aggressive or hostile behaviour, unless of course their control mechanism dissolves in alcohol or in some extraordinary situation. This does not mean that there is no undercurrent of aggression in the personality of Bougainvillians. What it suggests is that the aggressive impulse of Bougainvillians is not an

⁸ Concern for increase in alcohol consumption by young Bougainvillians was so conspicuous that almost all the girl students interviewed mentioned non-drinking habit as one of the most important characteristics for their future husbands.

uninhibited id-domination which flares up with frightening suddenness: rather it is generally moderated by emotional control. This is obvious in the following fantasy of a Buin villager:

The European came and shouted if anyone staying in the village. So when he shouted there came an old man. The old man came looking furiously at the European. He had not got calico around his body; he was very angry and annoyed at the sight of the European in the village ...

But this momentary flare of aggression of the old man does not lead to any violent action or even to an overt demonstration; it readily fades into a mere bewilderment and fear:

All villagers went to a party to another village leaving only the old man. The old man does not know how to speak in pidgin or what to do with this stranger. When the European talked to him in pidgin, he only gazed at him with open white eyes!

If non-aggressiveness is a general characteristic of Bougainvillians, apathy is not. There is a compromise, and their attitudinal response to non-Bougainvillians is tolerance with distance so long as it does not seriously impinge upon their own life pattern. When it does so impinge, there is normally a protest to show their disapproval rather than aggressive action. To illustrate, sexual associations between Bougainvillians and others have been most strongly discouraged by the local government councils in Bougainville. Even Bougainville politics are concerned to preserve the skin colour with almost a religious fervour. As a result of this kind of attitude the non-Bougainvillians do not become members of the local community. Foreigners are tolerated but isolated with an elaborate show of distance. In fact, tolerance to a wide range of behavioural situations is an important personality characteristic of Bougainvillians.

The personality traits listed above do not exhaust what may be said about the Bougainvillian public character, but simply offer a portrait of the psychic energies and personality profile characteristic of the people of Bougainville. What is striking, however, is the fact that the above personality traits apply with equal force to all Bougainvillians, be they mine workers, subsistence farmers, cash croppers,

or in any other occupation. This implies that participation in the exchange economy and especially in wage-employment, under Bougainville conditions, does not necessarily involve any overt reorganization of a personality system developed in response to a significantly different occupational system.

In the foregoing analysis a very generalized personality profile of Bougainvillian man has been portrayed. It does not give us a clear comparative picture of the kind of socio-psychological environment produced in the villages of the two subdistricts by the external stimuli of the money economy. This is an important deficiency because the general idea prevailing in the literature is that the socio-psychological environment in a society at a particular time is somehow connected in a cause-effect relationship with the nature of the society's response to the stimuli. In the present study, the expansion of the money economy, caused (mainly) by the copper mine development, is the most prominent stimulus, and the most readily measurable response is the participation by Bougainvillians in wage employment. The interdependency between the stimulus and response is apparent. The stimulus-response relationships continuously shape and reshape the socio-psychological environment which determines a particular response pattern at a particular time. The analysis of socio-psychological environment at a particular time thus indicates the nature of effects already made by the stimulus on the one hand, and the future trends of the response pattern and its influence on the character of the stimulus on the other. In the first two chapters we have discussed one side of the interdependency, that is, the existing stimulus pattern of the money economy. In the third chapter the behavioural response patterns of young Bougainvillians were analysed. In this section our main problem will be to view the interdependency of some selected attitudes and motivational factors, related to actual life conditions and change, which seem to be important socio-psychological determinants of the degree and manner of participation of Bougainvillians in money earning activities. In other words, this section will deal with the relationships of the socio-psychological environment to the motivation of adult villagers of Bougainville in the comparative frame of the villages of the two subdistricts.

Achievement, affiliation and power motivations

Three important motives are involved when we think about motivational profiles. Achievement motivation is the most widely known motivation and much work has been done on this. McClelland and his colleagues, and those who have followed his lead, have advanced an impressive amount of data to demonstrate the effect of need for achievement on individual behaviour, particularly entrepreneurship, occupational mobility, striving for personal success in exploiting environmental opportunities (see McClelland 1971:7-8). In an earlier study of Papua New Guinean villagers (not Bougain-villians), I reported a strong relationship between n Achievement on the one hand and levels of aspirations, work efforts in cash earning activities on the other (see Moulik 1973). In the same study the levels of n Achievement of the respondents were found to be strongly related to their wage-employment experience and type of school education (mission or administration schools).

The second most important element in the motivational profile is power motivation. This is emerging as a new field and increasingly more work is being done in this field. Power motivation is the concern of a person to influence the situation in which he works and the people with whom he interacts. McClelland's recent work (McClelland 1975 and McClelland and Burnham 1975) indicates that effective organizational or entrepreneurial managers are high in power motivation (rather than achievement motivation), low in affiliation motivation and high in inhibition.⁹ Using the new concept of stages of emotional maturity developed by Stewart (1975), McClelland (1975) has proposed a four-stage development of power motivation. According to this proposition these stages are:

- (a) learning and benefiting from outside sources;
- (b) being effective through the application of one's own resources; hard work and self-discipline;
- (c) using others' resources for one's own goals by controlling them; and

⁹ Inhibition means that the power motivation is not oriented towards personal aggrandisement but towards the institution which he serves, that is, it tends to be altruistic. In other words, power is exercised on behalf of someone else out of concern for the group or institution concerned.

- (d) using resources available in other persons for their development.

According to McClelland, the last stage is the stage of maturity which he terms as the development of power motivation.

The third element in the motivational profile is affiliation motivation which denotes the concern for being liked by people even at the cost of efficient management and goal achievement.

These three elements of motivational patterns were derived by analysing the stories told by the adult villagers in response to TAT pictures. The levels of the three types of motivations were measured for each individual respondent following the same scoring system as in Chapter 3.

Table 4.1

Motivation patterns of adult Bougainville villagers

	n Affiliation		n Power		n Achievement	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Kieta villagers (n = 225)	2.16	3.12	13.04	7.64	5.31	6.70
Buin villagers (n = 228)	2.08	3.09	12.72	7.03	2.40	5.89
't' values for mean differences between Kieta and Buin villagers at 451 df	0.93 NS		1.10 NS		5.72*	

NS = Not significant at .05 level.

* Significant at .01 level.

The results shown in Table 4.1 indicate that the levels of the three motivational components of the adult villagers are almost identical with the motivational patterns of the young Bougainvillian students. In other words, the differential trend observed between the Kieta and Buin villagers was

similar to that between the Kieta and Buin students, in that the Kieta villagers scored at higher levels in the three motivations than the Buin villagers. However, unlike the motivation scores of the young Bougainvillians, it was only in the case of n Achievement that the Kieta villagers scored significantly higher than the Buin villagers, while there was no significant difference in relation to n Affiliation and n Power scores. But the similarity in the differential trends in levels of motivations between the adult villagers and young students of the two subdistricts do reflect the influence of parental attitudes and home environment on the motivational disposition of the youngsters. While the degree of such influence of home environment on young minds is difficult to assess, the fact that both the Kieta and Buin students scored significantly higher ('t' values for mean differences being statistically significant at .01 level) than the respective groups of adult villagers perhaps indicates the influence of school environment and formal education on the levels of achievement motivation of the young Bougainvillians. On the other hand, the absence of any significant difference ('t' values for mean differences being statistically not significant at .05 level) between the respective groups of young students and adult villagers in relation to the mean scores on n Affiliation and n Power indicate much less or not effective influence of school environment and formal education on these two motivational dimensions in the minds of young Bougainvillians. This means that parental motivations and home environment are relatively the more important influences in the development of affiliation, power and achievement motivation in the minds of young Bougainvillians; external factors such as school environment and formal education contribute significantly to the development of achievement motivation only.

Apart from the influence of parental motivational patterns on the young minds, what kind of motivational profile do the data on the three need/motivation components signify for the adult Bougainville villagers? The adult villagers produced more power related images than achievement and affiliation related images in at least one of the seven stories they were asked to tell.¹⁰ Among the Kieta villagers, for example,

¹⁰ The caveat about the limitation of the TAT used should be emphasized again. As discussed in the case of the young students' response pattern, the TAT pictures used in the present study were perhaps biased in favour of response towards n Power and n Achievement rather than n Affiliation.

only 25 per cent made up stories with no power imagery at all, while 49 per cent introduced no achievement imageries and as high as 69 per cent had no affiliation imageries. Similarly, among the Buin villagers, only 31 per cent introduced no power related anecdotes at all in the TAT stories, while 63 per cent produced no achievement images and 71 per cent had no affiliation images. Among those respondents who introduced motivational images in their stories, the largest number told either four or five stories containing references to power related behaviour, two or three stories with reference to achievement behaviour and only one or two with reference to affiliation motivation.

The foregoing analysis indicates a certain distribution pattern of the three motivational components among the individual respondents. In other words, there were individual differences between respondents in relation to the mix of levels of three kinds of motivation. This can be made clear by classifying the respondents into three levels of motivation; high, medium and low.¹¹

10 (continued)

The results based on the analysis of TAT stories should therefore be considered simply to suggest a trend rather than any absolute conclusion.

¹¹ Levels of motivation were classified, first, by using the mean scores obtained by the respondents including both young students and adult villagers: above mean value was 'high' and below mean value was 'low'; second, the above mean range of scores was further classified into 'medium' and 'high' by adding 1 standard deviation to the mean value; the motivation scores ranging between mean value and mean + 1, standard deviation was 'medium' level and above mean + 1 standard deviation was 'high' level. Following this procedure the range of motivation scores were classified as follows:

Motivation	Mean	Standard deviation	Range of scores in categories		
			High	Medium	Low
n Power	12.90	7.47	Above 20.37	12.91 to 20.37	Up to 12.90
n Achievement	4.57	6.47	Above 11.04	4.58 to 11.04	Up to 4.57
n Affiliation	2.10	3.01	Above 5.11	2.11 to 5.11	Up to 2.10

Table 4.2

Respondents' levels of motivation

Respondents	Low	Medium	High	χ^2 at 2 d.f.	P
<u>Power motivation</u>					
Kieta villagers (n = 225)	49	40	11	9.92	>.05
Buin villagers (n = 228)	48	38	14		
<u>Achievement motivation</u>					
Kieta villagers (n = 225)	40	33	27	41.93	<.01
Buin villagers (n = 228)	69	12	19		
<u>Affiliation motivation</u>					
Kieta villagers (n = 225)	60	21	19	1.04	>.05
Buin villagers (n = 228)	64	20	16		

It is clear from Table 4.2 that the distribution of adult villagers in the three levels of power and affiliation motivations were similar for Kieta and Buin subdistricts. On the other hand, a significantly larger proportion of Buin respondents scored low in achievement motivation than did their counterparts from Kieta subdistrict.

Subject to the limitation of the TAT used in the study, we can now analyse the constellation of motives of the adult villagers in relation to the mix of levels of three motivations. While the mix of levels has many permutations and combinations, five common approaches to motivational profile can be identified. The respondents classified accordingly are representative of five different characteristic behavioural response patterns to money earning activities.

Table 4.3

Typology of motivational profile

Types	Levels of motives	Per cent of respondents		χ^2 at 4 d.f.	P
		Kieta (n = 225)	Buin (n = 228)		
Entrepreneurial manager	Medium in n Achievement	2.5	1.2	3.26 > .05	
	High in n Power				
	Low in n Affiliation				
Entrepreneur	High in n Achievement	9.9	11.5		
	Medium in n Power				
	Low in n Affiliation				
Peasant	Low/medium in n Achievement	29.5	33.6		
	Low/medium in n Power				
	Medium/high in n Affiliation				
Subsistence farmer	Low in n Achievement	4.5	2.5		
	Low in n Power				
	High in n Affiliation				
Indifferent	Other than above combin- ations of levels of motives	53.6	51.2		
Total		100.0	100.0		

It should be recognized at the outset that in any such typology related to behavioural classification there is an inherent danger of being too simplistic. As a methodology, however, it is a convenient tool. Apart from convenience, the use of typologies as described in Table 4.3 is justified to the extent that there is general agreement in the literature on characteristics associated with each of the types.

Let us now examine the likely behavioural response of the five types of motivational groups. According to McClelland (1975), the entrepreneurial manager is one who is in effect an institution builder. As Pareek (1975) described, the behavioural characteristics of such a person are:

- . Enough commitment not only to the philosophy of entrepreneurship and to the values of developing people, but also to the work which he undertakes;
- . Instead of ordering, dictating, or directly telling and intervening, he learns to use ideas, creativity and skills others have, so that they are able to contribute to the development of the autonomy of other persons;
- . He should have a high degree of empathy, feeling for others and capacity to anticipate and be sensitive to the problems others are facing.
- . He helps people work together and produce synergy, i.e. an effect of a group which goes much beyond the total skills available in its members.
- . He searches for solutions by examining several alternatives available; and
- . He has a positive attitude towards the local resources, which encourages increased use of local resources, reinforces the positive image of the local institutions and promotes more collaboration amongst these institutions.

Looking at these psychological characteristics, one can identify entrepreneurial managers in the Bougainville situation in the persons of the leaders of 'interest associations', such as producers' and consumers' co-operatives, 'holding companies' related to transport, construction and retail business, etc. The 'interest associations' have two clearcut objectives: first, they seek to represent an

'interest' of a group of people, and second, they attempt to assert independence from expatriate dominance. In order to achieve their objectives, they try to exploit all possible money-earning activities by obtaining governmental and non-governmental assistance, by utilizing local resources and by drawing on new sources of wealth in their communities. These new sources of wealth could be cash cropping, wage-employment, compensation money given by the copper mine, share holding, etc. In other words, an entrepreneurial manager is a person who is ready to participate in any kind of money-earning activities and even to try to influence other members of his 'association' or 'group' to do the same, so long as it satisfies the association's objectives. Apparently, this entrepreneurial manager group, although very small in size, is comprised of 'big peasant elites' representing the class interest of the 'interest associations'. The active members of these 'interest associations' are also mostly from the same 'big peasant elite' class.¹² The entrepreneurial manager of the 'interest associations' usually seeks political power and prestige for the 'interest' group as well as for himself, rather than personal economic aggrandisement; he does this by obtaining control of the provision of government and non-government support services at the local level and usually by arranging the production and marketing of a certain agricultural commodity in a manner serving the interest of the association. Among the respondents under report, Kieta villagers seemed to have a slightly larger proportion of leaders with the motivational characteristics of entrepreneurial manager than did the Buin villagers.

¹²For an excellent analysis of the evolution of the rural elite class in Papua New Guinea, see Gerritsen (1975). In his analysis, he differentiated 'interest associations' from dynamic 'communal associations'. 'Interest associations' have limited organizational objectives. They seek to represent an 'interest'. This may be coffee growers, Asaro HFSA or Goroka Farmers Club (GFC), cattlemen, GFC or the Northern District Cattle Farmers Association (ND/CFA), or rice growers as in the Mekeo Rice Growers Association. By contrast the dynamic communal associations, such as the well-known Mataungan Association and the Kabiswali movement (as well as a host of less well known groups) seek universalistic objectives. They want to organize economic development, cultural regeneration and 'people's government'. No activity is outside their group! According to Gerritsen's classification the Hahalis Welfare Society of Bougainville, in its present form, may be considered a dynamic communal association.

Let us now take the second group of respondents, that is, entrepreneurs. The entrepreneurs are those people who start or expand small businesses. The key to their success has turned out to be what psychologists call the need for achievement, the desire to do something better or more efficiently. Again there seemed to be only a slight difference between Kieta and Buin villagers; a marginally greater proportion of Buin villagers have demonstrated the motivational qualities of entrepreneurs than Kieta villagers. However, the proportions of respondents with entrepreneur characteristics were relatively low in both subdistricts. Who are these entrepreneurs? They are the keen innovators eagerly exploiting the new ideas of cash earning activities, especially cash crops, retail and wholesale trading, truck-transport business, etc. The motivational make-up of the entrepreneur is different from that of the entrepreneurial manager. Entrepreneurs are successful in setting up a small business and running it profitably as long as it remains fairly small and manageable, but they become less effective when the business expands and when the entrepreneur is required to manage a larger organization and to recruit and work with a larger number of people. In other words, as long as the enterprises are limited to a manageable challenging situation, the individual entrepreneur is effective because he still operates in the framework of achievement motivation with characteristic concern for competition and using oneself for achieving the competitive goal. But as soon as the situation demands helping others to give their best and supporting them to be effective, the relevance of achievement motivation becomes less and is overtaken by power motivation which is the characteristic of the entrepreneurial manager. Among the respondents under report, almost all the entrepreneurs were members of the 'interest-associations' as described before in connection with the entrepreneurial manager. In other words, the entrepreneurs among the village elders of Kieta and Buin subdistricts tended to have the 'big peasant elite' class background as did the entrepreneurial manager.

The money-earning activities of these entrepreneurs follow a certain uniform pattern. Apart from membership and shareholding in the 'interest associations', their major aim is to own or set up some off-farm business enterprises. The indigenous private traders of cash crops and the wholesale trader of vegetables from Siwai who obtained contracts to supply weekly requirements to the copper mine and to the school at Kieta are examples of such entrepreneurs. Although

the major thrust of their efforts is to own a business enterprise, the entrepreneurs are also deeply involved in village-based money-earning activities such as cash cropping and marketing of subsistence produce. They are also keen to supplement their incomes and savings from wage-earnings, by obtaining wage employment either for themselves or for members of their households. But to them wage employment is a temporary phase, resorted to when it is thought necessary to supplement their other cash incomes to generate sufficient savings for investment in business enterprises. The entrepreneurs would not wish to continue in wage employment beyond the point where they felt comfortable with the success of their business enterprises.

The two motivational groups, the entrepreneurial managers and the entrepreneurs, do in fact indicate the emergence of capitalist mentality in pre-capitalist Bougainville. As a result, there are expressions of growing individualism among these two groups as regards both ownership and use of wealth or means of production. Many of these new entrepreneurs are irrepressible in their zesty enjoyment of their money. Inevitably, such conspicuous and ostentatious spending attracts its share of adverse publicity and produces an unfavourable reaction among less fortunate villagers. The entrepreneurs often arrogantly refuse to follow the distributive norms that Melanesian society traditionally attaches to attainment of wealth. Social sanctions that were effective in the traditional society to enforce distributive norms have become ineffective in the process of modernization and change. A successful young Buin entrepreneur, for example, remarked with a proper entrepreneurial distaste for the distributive norms of wealth:

I have earned my money by my own hard work. I do not care what others say, but I will never share even a small part of it. This is my money. I want to spend it as I like.

Consequently, a common complaint among the old Bougainvillian villagers outside the elite class is that hospitality has disappeared and even relatives do not share their new-found wealth and fortune any more. There is often some exaggeration in such complaints, but the concern is clearly evident.

It is also clear from the data in Table 4.3 that the new capitalist mentality is by no means universal. Only a few

become imbued with it and are thus able to dominate their weaker fellow villagers: they increase and individualize the ownership of landed property; they act as intermediaries and buy up the indigenous market crops, they are traders rather than peasants; they also push themselves, even if temporarily, into the wage employment market. In other words, they form the capitalist counterpart of the tribal or clan chiefs. It makes an important difference whether the villagers they exploit are subsistence farmers or growers of cash crops. In the latter case they do not disturb the equilibrium of a closed pre-capitalist household economy, but rather introduce an element of class differentiation into a far less differentiated traditional tribal economy.

Let us now consider the characteristics of the third and fourth groups, i.e. the peasants and subsistence farmers. Almost all the rural households in Bougainville took to the production of cash crops for the export market without substantially reducing their subsistence output. In many cases, in fact, there has been expansion of subsistence crops and cash crops simultaneously. With the establishment of contacts with the external economy through the production of export crops, there remained no pure subsistence producer or sector; it became in effect a peasant economy. Analytically there are two distinct phases in the development of the peasant sector. In the first phase, the subsistence farmer took up cash crop production as a part-time activity to obtain an extra cash income, in addition to the subsistence production of which he had already made sure. The cash income could then be spent on other consumption items. Taking up cash crop production at this phase was virtually a riskless operation, requiring no other cost than extra working hours from the surplus labour available after the subsistence activities had been completed. In the typology used in this study, this group is termed 'subsistence farmers', in the sense that they are strongly concerned about subsistence security; they would spend a major share of the available labour hours in subsistence work (and not fully utilizing the labour time available for alternative economic or money-earning activities); this is the group for whom the 'target demand' and 'backward sloping supply curve of effort' will tend to operate at a very early stage. In other words, this is the group that Fisk termed 'subsistence affluent', who with their partial commitment to the money economy have not fully utilized the market opportunities open to them. They formed a very small proportion in the sample respondents of adult villagers from both Kieta and Buin subdistrict -

mostly elderly villagers without any wage-employment experience and with strong affiliation to the traditional norms of tribal clans who in effect remained isolated from the main-stream of the money economy by deliberately not participating in it fully. Most of these subsistence farmers have a relatively low resource base (land), and this does not permit them to shift their attention and labour to cash cropping in a major way. Even if switching their resources from subsistence to the cash crops promised some monetary gain, they would be obliged to reduce their subsistence output to grow the cash crop. Given the low land resource base, this would make expansion of cash crop production a hazardous undertaking, leaving no margin to meet the risk involved if something went wrong with their cash crops. It is therefore quite rational and justifiable for the subsistence farmers to be hesitant about entering fully into the money economy by way of cash crop production or other money earning activities. To try to explain the behaviour of the subsistence farmers entirely in terms of motivational conservatism is unconvincing. On the other hand, it is perhaps this resource constraint, or more specifically, the size of the margin of surplus productive capacity over the desired subsistence requirement that makes the subsistence farmers motivationally weak in money-earning activities. Not only do the subsistence farmers become motivationally weak, but they also try to rationalize their weak response to money-earning activities in terms of a protest against the 'ills' of the modernist onslaughts. Among the sample respondents, for example, the subsistence farmer group was most vocal in its complaints against the breaking down of the 'glorious' traditional norms of the tribal society.

The third group in the motivational typology, the peasant farmers, is, in fact, in the same continuum of response-behaviour as the subsistence farmer, but towards the other end. Motivationally, the peasant farmers are more favourably disposed than the subsistence farmers to operations in the monetary sector, with relatively higher achievement and power motivations. Perhaps a relatively larger land-resource base contributes to their motivational profile. But compared to the first two groups, the entrepreneurial managers and the entrepreneurs, the motive configurations of the peasant farmers are far less strong in that they remain basically dependent on land-based economic activities furthered by supplementary incomes from other money-earning activities such as wage employment. With their relatively large land-resource base, this group was able to take the risk of

utilizing the money-earning opportunities by devoting a major share of their resources to cash crop production even at the cost of subsistence production (while in most cases maintaining a minimum required subsistence level of production for sustenance). Such a major switch over to cash crop production was further facilitated by the growth of communications, transport and marketing facilities. But in the process of their shift towards greater commitment to the money economy, the peasants ceased to be self-financing. As a result, there were changes in the economic organization of labour resources among the peasant families. To a certain extent the peasant family started depending upon its younger men - that is, the father at one stage, the son at another - for a cash income which it could not do without, but the major portion of its cash income was derived from village-based economic activities, particularly cash cropping. Having enough land to grow cash crops and a market for their produce, a peasant family has the choice between staying at home and farming its land or earning the cash that is needed in some wage employment away from home, and the choice is partly a matter of rational calculation based on the estimated difference in return, taking into account the fact that a stipulated wage is paid regularly, whereas the independent cash cropper has to bear his own risks.

A relatively large proportion of the sample respondents of Kieta and Buin households were found to have the motivational profile of the type of peasant farmers. All these peasant families either had one or more members in wage-employment at the time (see Table 2.7) or the adult male respondents themselves had had some past wage-employment experience (see Table 2.6), or both. The general pattern seemed to be that a man of a peasant family made two journeys to wage employment in his lifetime; most of them made the first before they were married; and many made both before they were about thirty or forty years old. As noted by Bedford and Mamak (1975),¹³ a large proportion of Bougainvillian urban workers in the Panguna/Arawa/Kieta complex, especially those from Kieta and Buin subdistricts, could be

¹³ Bedford and Mamak (1975) observed: 'some evidence of returns to villagers between the months of July and October, the major harvest period, is indicated by the high incidence of "desertions" and resignations at this time of the year which employers say are characteristic of Buin and Kieta workers'.

described as representing the strategy of peasant families. The adoption of this strategy has become easier and more worthwhile now for the Buin families, in particular, because of the development of extensive road networks and the present high market price for cocoa. While these urban workers of Kieta subdistrict were mostly commuters, the Buin workers were reported to make frequent visits to their villages. As a normal strategy, the peasant family members who go away to earn money try to arrange their journeys so as not to be away at the time when they are most needed. They try to be at home so as to make a point of doing their share at the busy time, thus retaining their rights to land. There are always peak periods in cash cropping which call for more manpower than a single household can provide such as new plantings, clearing and harvesting. The more a peasant farmer shows enterprise in planting his land with cash crops, the more he is committed to finding extra labour when the necessary operations in peak seasons are to be completed.

In addition to the fact that the expansion of cash cropping itself calls for extra labour, especially during peak operations, it often becomes less and less practicable to dovetail the work in cash cropping in the village with that in wage employment. In this situation, wage-earners may send money home to pay labour for the necessary peak-season operations in cash cropping. Remittances of money from wage-employed members of the household were particularly important for the Buin peasant families because of the rapid expansion of their cocoa plantations.

A successful peasant farmer employs his own labourers, all the year round if he can, but at harvest time in any case. Even the women and teen-age children, for example, were engaged in harvesting cash crops in the study villages of Kieta and Buin. Since cash crop plantations in Bougainville have often been made in virgin forest, in many cases the owners have had to get it cleared by hired labour. Once a plantation has been made, there is the necessity for annual weeding, for which paid labour may also have to be employed. The money sent by the wage-earning members of the peasant families, therefore, helps pay the labour costs of maintaining and expanding cash crops. Since the Bougainvillians do not normally expect to enter into a continuing relationship of employer and employee with members of their own tribe and since it is unusual for people to work for wages in their own homes (to do so is tainted with a social stigma and entails a radical change in the accepted system

of relationships), the hired labour is drawn largely from areas outside the village and often from different peoples - the people from less fortunate areas outside the cash crop area and from the hill areas. But this labour market for agricultural work is not well developed in Bougainville yet. It is often extremely difficult, particularly in Buin villages, to get such agricultural labourers in sufficient numbers. To overcome this difficulty of labour shortage, peasant families, particularly in Buin, make reciprocal arrangements (following traditional reciprocal exchange obligations) between neighbours or between neighbouring villages to do the job in peak seasons. These are arrangements for a single piece of work in which, for example, the people from a neighbouring village (or neighbour's family members) help the other village in harvesting cocoa on a reciprocal basis. There are no cash transactions involved, although the receiving party feeds the people who help them while the work continues. Obviously, such an exchange system cannot solve the problems of labour when operations are competing between villages or between peasant families. As a result, there are wastages owing to non-harvesting or untimely harvesting and also owing to lack of maintenance of the established plantations. After a period of rapid expansion of cocoa plantings, the Buin peasant families seem to have reached a stage when labour shortage is being increasingly felt as one of the main limiting factors for further expansion.

Be that as it may, motivationally the peasant farmers seek to keep a foot in both worlds. They regard the village as home and cash cropping as their main vocation, while wage employment is considered as a short-term sojourn, supplementary to the primary concern of cash cropping. Eventually the wage-earners of the peasant families settle down in the village when they have had enough of wage labour. Since the peasant farmers are motivationally committed to village-based activities and village life, but closely linked with the urban economy and outside market, their need for affiliation with traditional tribal values and norms gets weakened, but not substantially eroded. In operational terms, a peasant farmer would be willing to disregard traditional norms and values only if it helps him in his cash cropping enterprise; otherwise he would maintain the expected traditional relationships with village people.

Merely for want of a proper word, the last group in the motivational typology is termed 'indifferent'. They are

'indifferent' in the sense that their motive configurations do not fall into any one of the four above-mentioned categories. Motivationally, the 'indifferent' group seemed to be in between the peasant farmer and the subsistence farmer. More specifically, the levels of achievement and power motivations of the 'indifferent' group were higher than those of the subsistence farmer group, but much below the peasant farmer group. The only distinguishing motive characteristic of the 'indifferent' group was that almost all had shown consistently very low affiliation motivation, unlike the subsistence and peasant farmer group.

As an in-between group, the behavioural traits of both subsistence farmers and peasant farmers can be observed among the members of the 'indifferent' group. In ownership of land, members of this group were almost equal to or slightly better off than the subsistence farmers, but they were nevertheless far below the level that could satisfy their motivational demand. Compared with the situation of the peasant farmers, further expansion of cash crops beyond the level already achieved by the 'indifferent' group was either physically not possible or economically not viable. In addition, quite a few of the 'indifferent' members were situationally constrained in that their villages were located in isolated interior (or hilly) areas or were at a considerable distance from the market centres. On the other hand, being constrained in cash crop expansion the 'indifferent' group seemed to exploit subsistence resources fully. It was this group, for example, who were most keen to take the opportunities to market subsistence garden foods in the markets as retail sellers. But the cash earned from occasional retail sales of subsistence produce in the weekly food markets was too small to satisfy their motivational demand.

For the 'indifferent' group therefore the strategy of the subsistence farmer was unsatisfying, whilst the strategy of the peasant farmer was not available to them. Since they did not have the inherent motivational drive of entrepreneurs, the only course left to them was to stagnate in their level of participation in the money economy. This 'stagnation' and the resulting frustration tended to weaken their need for affiliation to traditional norms and village life, and for many the only workable strategy seemed to be involvement in wage employment as a major source of money income, thus breaking away from the stagnating village economy. In this respect, the wage-employment opportunities in BCP in particular, and in other town-based jobs in the Panguma/

Arawa/Kieta complex in general, were important motivating factors. Most often, however, they did not have proper information about these wage-employment opportunities. But this did not deter many of them from visiting their few 'wantoks' who were already working in these towns, in search of wage employment.

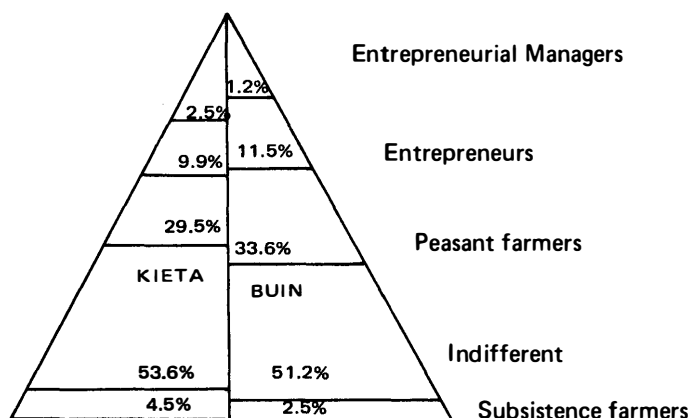
The deliberate choice of wage employment and often active seeking for it should not be construed as an indication that the 'indifferent' group wanted to make a complete break away from their village life and permanently involve themselves in wage employment. To the extent that the 'indifferent' group had the behavioural traits of the subsistence and peasant farmers' groups, they wanted to maintain their links with their village activities without being too emotional about it. If a member of this group were fortunate enough to have wage employment in the town, it is likely that he would bring his family to town; he would send some money to the home village (at least during the initial years); and he would make occasional visits to the village (not initially, but later maybe once in a year). In other words, he is likely to stay as a wage worker in the town longer than a member of a peasant family, but not permanently. As an ultimate aim, he wants to return to his village 'one day' and live there. Unlike other motivational groups, however, the 'indifferent' group was not very choosy about the location of wage employment; they certainly had a preference for Bougainville district, but were not unwilling to go to other parts of Papua New Guinea.

It is most striking that among the respondents of both Kieta and Buin subdistricts more than 50 per cent had a motivational type of the 'indifferent' group. Paradoxically, very few (only 3.5 per cent) from the families of this group were found to be wage-employed at the time of investigation, while almost all peasant families had one or more members wage-employed.

Class consciousness

The foregoing analysis reveals a distinct hierarchy of motive configurations among the village elders of Kieta and Buin subdistricts. In effect, however, the motivational hierarchy was closely related to economic differentiation between the hierarchical groups or classes (as a Marxist would say). In other words, the difference in motive

configurations has resulted in an economically differentiated class structure based on differences in the availability and exploitation of economic, social and political opportunities.



When the class structure of the respondent families of Kieta and Buin subdistricts is arranged in a hierarchical pyramid (see fig.), its interesting aspects are graphically revealed. At the bottom more than half the pyramid is occupied by the motivationally weak and economically disadvantaged groups of 'indifferent' and subsistence farmer categories; about one-third of the pyramid is occupied by the medium level group of peasant farmers; and lastly, only about one-eighth (the top) of the pyramid is occupied by the highly motivated and economically (socially and politically too) advantaged group of entrepreneurial managers and entrepreneurs.

It is striking to note that this pyramid of class structure applied to the sample families of Kieta and Buin subdistricts without any significant differences between the two. It may be argued that there was a kind of class distinction in terms of economic and social disparities even in the traditional social structure of Bougainville villages. But it is certain that the nature and the degree of economic differentiation between the classes was not as conspicuous or as sharp in

the traditional social structure as it is now. One can safely argue that the evolution of a distinct class structure is the result of the introduction of cash or money earning opportunities which has broken the traditional nexus between production, accumulation and distribution. The copper mine and its concomitant development has merely accelerated the process.

Now the question is whether the class structure described above is merely an academic figment or does it carry any meaning to the Bougainville villagers themselves in relation to their response behaviour? In other words, are the Bougainville villagers conscious of the class distinction as revealed in the study and if so, how? For, it may be hypothesized that the villagers' response behaviour towards money earning opportunities is likely to be affected by the nature of their consciousness about class distinctions. Depending on the position in the class hierarchy and the nature and degree of consciousness of class disparity, the aspirations, motivations and participations of a villager may vary. With this hypothesis in mind, an attempt was made to understand the nature of class consciousness among respondents.¹⁴

Firstly, an attempt was made to find out whether the adult male villagers under investigation could verbalize class distinctions. The respondents were asked: for whom did they vote in the last PNG Assembly elections and why? Who was their favourite MHA and why? Who were their best friends and why? If class terms such as rich/power, urban/rural, educated/illiterate, wage-employed/non-wage worker, cash cropper/non-cash cropper, businessman/non-businessman, etc. were mentioned in one of the responses to these questions, then the respondent was classed as having verbalized the class distinction.

Secondly respondents were asked: who got the profits of the Bougainville Copper Mine? If the respondents were sceptical enough to make class references (e.g. rich, businessmen, mine workers, white men, PNG Government only, the copper company, those living near the mine, etc.) then the respondents were treated as sceptical and class conscious in this regard.

¹⁴The methodology adopted in this study to gauge class-consciousness is an adaptation of Leggett (1963).

Thirdly, respondents were asked to project themselves into a situation in which a group of aggrieved villagers were about to take action against the government or an industrial company because it planned to acquire a portion of their land for road development or for establishing a factory. The respondents were asked to indicate whether or not they would join the protesting group of villagers in a series of activities including demonstration, picketing and forcible eviction of the representatives of the government or the concerned company. If a respondent would take part in the latter series of protesting activities, he was classified as militant and class conscious because of his identification of interest in common with others and a willingness to participate militantly in a collective protest.

Lastly, respondents were asked whether they thought that the profits of the Bougainville Copper Mine and of the rich businessmen around the place should be divided up equally so that all Bougainvillians would have an equal chance to benefit and prosper. Agreement to such a notion was categorized as egalitarianism and as indicating class consciousness.

However arbitrary the above-mentioned measures of class consciousness might be, an interesting pattern of class consciousness among the adult villagers of Kieta and Buin subdistricts was revealed. Surprisingly, almost one out of four respondents in both subdistricts seemed to have articulated the class distinctions to the level of stereotyped class terminologies. This level of class verbalization among the Bougainville villagers was unexpected, given the fact that in their traditional social structure such sharp class distinctions were probably absent. In fact, the class verbalizers were the most class conscious group in the sense that they were also sceptical, militant and egalitarian. The most interesting aspect of the class-verbalizers was that almost all of them belonged to the lowest part of the pyramid, that is, subsistence farmers and the indifferent group. This most class conscious group was equally concerned about the distinctions between BCP workers and non-BCP workers, rich and poor, urban and rural, educated and illiterate, villagers from isolated interior areas and villagers from areas near the communication/transport facilities, villagers near the mine and villagers away from the mining areas, a few people supported by BCP business advisory services (and other governmental agencies like the Development Bank) and a large mass not benefitting by these supporting services and so on.

Table 4.4

Class consciousness by groups of respondents

Categories of class consciousness	Per cent of respondents	
	Kieta villagers (n = 225)	Buin villagers (n = 228)
Class verbalizer	22	26
Sceptic	58	56
Militant	85	69
Egalitarian	86	57

It was perhaps out of their consciousness of economic differentiations in terms of income-inequality that a number of the class verbalizers from Buin expressed their deep concern about the concentration of economic development in the Kieta subdistrict at the expense of development in Buin subdistrict. Some of them even went to the extent of demanding the shift of district headquarters to Buin. Similarly, most of the class verbalizers of the Kieta subdistrict felt strongly that the villagers from relatively inaccessible areas away from the mine within the Kieta subdistrict were completely deprived of the economic benefits enjoyed by those nearer or around the copper mine. This was not only in relation to the compensation money or royalty or other material benefits but also in relation to the advisory services and other institutional helps extended to a few villagers by BCP itself (and by other developmental agencies) near the mine areas.¹⁵ The impact of class distinctions was not restricted to economic inequality; it also permeated into social inequalities. As reported by some of the class

¹⁵ Unfortunately, the autocratic views of some of the important BCP officials connected with BCP's Community Relations and Business Advisory Services aggravated the situation. When a high-ranking BCP official (a white man) for example was told about the feelings of some villagers regarding discrimination, he remarked: 'what can BCP do? We cannot support all, nor can we advise all. We support and advise only those whom we think have the potential to be entrepreneurs. After all, a country is always ruled by a few people. Let these few Bougainvillians be the rulers'.

conscious Kieta villagers from the lower part of the pyramid, it has been increasingly difficult for them to maintain normal traditional relationships with relatively rich people in the upper part of the pyramid. In recent years, for example, there has not been a single instance of marriage between an eligible member from an inaccessible mountain area of Kieta subdistrict and a member from the villages near the mine area. One of the reasons mentioned for such development in social relationships was the exorbitant 'bride price' demanded by the relatively rich villagers located near the mine.

Regarding the profits of the copper mine, more than half of the villagers from both subdistricts were sceptical in the sense that they mentioned mostly the BCP or CRA and the rich white men ('who owned the company') as the recipients of the profits. Some of them also mentioned the Central PNG Government as the major beneficiary of the profits, implying thereby that Bougainville district or its people were not getting their rightful share.

The militancy of respondents towards the acquisition of land for road or industrial development was expected. As discussed earlier in this chapter, land has been a very sensitive issue for most of the Bougainville villagers. In this regard it was notable that compared to Kieta villagers a much smaller proportion of Buin respondents were militant. The recent experience of the Kieta villagers of the land acquisition by the copper mine was certainly an important factor in this. The Buin villagers, on the other hand, did not have such direct experience. Also, it is possible that Buin villagers had seen the economic benefits of road or industrial development in Kieta subdistrict, and the benefits of the trans-island road to themselves; moreover, as they had strongly felt neglected *vis-à-vis* Kieta's development due to the copper mine, many Buin villagers would welcome roads or industrial developments even at the cost of some of their land. How far such welcoming attitudes would prevail at the time of actual land acquisition is difficult to assess. But in the absence of imminent land acquisition, this welcoming attitude might at least partly explain their lack of militancy compared to Kieta villagers.

As with militancy, the number of Buin respondents having egalitarian notions about the distribution of profits of the copper mine or other business enterprises was far less than among Kieta respondents. Buin villagers seemed to be

traditionally more tolerant of economic differentiation *per se* or to a greater class differentiation in terms of its size or degree than their counterparts in Kieta. Consequently, Buin villagers were too pragmatic to think wistfully about the possibilities of equal distribution of profits of the copper mine or other business enterprises. Alternatively, the inequalities between the classes in Buin villages may have been less than in Kieta, and insufficient to provide egalitarianism amongst many of them.

Level of aspirations

In an earlier study (Moulik 1973), the level of aspiration of indigenous people in Papua New Guinea was found to be an important determinant of their participation in money earning activities, especially cash cropping. The relationship between the levels of motivation and levels of aspiration are well established (see for example Atkinson 1958:328-9). To quote from my earlier study:

the rational level of aspirations of villagers should be that level of aspiration score at which the respondents also score high measures of the achievement motive, in which they put relatively longer hours of economically productive work more vigorously, and exploit cash-earning enterprises (Moulik 1973:201).

In other words, the level of aspiration should be consistent with the motivational demand in order to generate goal-striving actions. Now the goal-striving action is also a result of changes in the relationship between the desired and the realized level of the goals. It is in this sense that the level of class consciousness as described earlier plays an important role.

What was the level of aspiration of the adult male villagers of Bougainville? Following the methodology used in my earlier study (Moulik 1973), the level of aspiration of the individual respondents was assessed. Briefly, the method followed was a semi-structured projective technique in which the respondents were given a brief history of an average Bougainville villager as a frame of reference and then asked whether 'five years from now' they expected the villager in the hypothetical story to make improvements over his present position in

Table 4.5
Percentage distribution of respondents according to
levels in different areas of aspiration

Action areas	Kieta villagers (in = 225)			Buin villagers (n = 228)			χ^2 value at 2 d.f.
	Low	Medium	High	Low	Medium	High	
1. Education	13	44	43	23	43	34	8.54*
2. Land development	6	59	35	39	27	34	83.35**
3. Cash crop planting	0	37	63	30	27	43	75.10**
4. Cash income	13	57	30	38	28	34	50.70**
5. Housing	32	1	67	39	13	48	33.20**
6. Cash crop production	11	30	59	34	23	43	34.60**
7. Capital investment	59	38	3	79	18	3	22.40**
8. Furniture	9	51	40	69	2	29	210.50**
9. Other material possessions	13	53	34	68	0	32	205.40**
General level	32	36	32	58	13	29	41.50**
Mean scores	52.64			48.92			
Standard deviation	4.71			6.93			

* Significant at .05 level.

** Significant at .01 level.

relation to nine action goals.¹⁶ These nine action areas were found to be the important aspects of life connected with the cash economy about which villagers had expressed their concern and desires.

The level of aspiration scores for individual respondents was then classified into three meaningful levels on the basis of the mean value and the standard deviation of the obtained scores. Thus the 'medium' level of aspiration was denoted by the range of scores within mean $\pm$ 1 standard deviation (60.90 ± 5.32), i.e. 45.58 to 56.22, and the range of scores falling below 45.58 were termed 'low' levels while the range of scores above 56.22 were classified as 'high' levels of aspiration. The distribution of Kieta and Buin respondents according to levels of aspiration in relation to nine action goals is presented in Table 4.5.¹⁷

The data on levels of aspiration indicate a striking difference between the Kieta and Buin respondents. In all action areas a considerably lower proportion of Buin villagers responded in the highest and medium scoring categories compared with Kieta villagers. At a general level, when the aspiration scores on all the nine action areas are aggregated, an interesting pattern is observed: Kieta villagers were distributed almost in equal proportions into low, medium and high levels of aspiration categories while the Buin villagers were unevenly distributed between the three levels. A large majority of Buin villagers (58 per cent), in fact, scored low level of aspiration while a small proportion (13 per cent) scored medium level aspiration and about one-third scored high level of aspiration. To sum up, both individually in nine action goals as well as at a general level, Buin villagers were found to have lower expectations for improving their status in the coming five years than their counterparts in Kieta subdistrict.

What could be the possible reasons for such a significant difference in levels of aspiration between Kieta and Buin villagers? It is extremely difficult to give an accurate

¹⁶ The selected action areas were: education of children, land development (enlarging cultivable land by clearing bushes and so on), cash cropping (new plantings), cash income, housing, cash crop production, capital investment projects, household furniture, and other material possessions.

¹⁷ For detailed distribution, see Appendix 4.1.

answer to this question, for the level and dynamics of aspiration are in reality influenced by an infinite number of internal as well as external variables. However, one of the reasons could be the differential economic impact of the copper mine upon the Kieta and Buin areas. The opportunities opened up by the copper mine development were much greater for Kieta villagers than for Buin villagers. Also, these opportunities were not merely theoretically available to the Kieta villagers; on the contrary they could be achieved in practice with reasonable effort and some Kieta villagers had already achieved them (in many cases without effort, as in the windfall gain of a large sum of compensation money). As compared to a Buin villager, it was not at all a wild expectation for a Kieta villager to think that during the next five years he would be able to have a European style house, a substantial increase in annual cash income (over \$400), a few capital investment projects (e.g. truck, trade store, etc.) some house furniture (chairs, tables, cupboards, etc.) and a host of other material possessions (e.g. car, refrigerator, cooking utensils, transistor radio, camera and other durable goods). In other words, to many Kieta villagers all these were possibilities of the near future, while to many Buin villagers such possibilities were not. There was, however, relatively less difference between Kieta and Buin villagers in levels of aspiration concerning children's education. Perhaps this was because of the prevailing strong desire for a good education for their children among Bougainvillian parents in general, as discussed in Chapter 3. But even in relation to children's education more Kieta villagers had high aspirations than did Buin villagers, which again could possibly be because of the educational facilities available in Kieta being better than those available in Buin. Besides this, it must be noted that the Kieta villagers had had relatively more intimate and longer contact with the outside world, where formal education of children happened to be a cultural norm. What was most surprising, however, was that more Kieta villagers had higher levels of aspiration in action areas like land development, cash crop planting, cash crop production than Buin villagers, in spite of the fact that for most of the study villages in Kieta, particularly Guava and Pakia, the scope for further land development and cash crop expansion was severely limited. In fact, none of the Guava respondents had any cash crops planted any more, owing to the mine development. On the other hand, there had been the cocoa boom and a tremendous expansion of new plantings of cocoa in Buin villages in recent years. It should be noted here that in action areas such as land development and cash

crop expansion, the basic motive was not merely economic gain; the desire for future security and inheritance for children was a dominant motive force. The land and land-based activities in the village were perceived as the final thing to fall back upon if something went wrong somewhere some time; wage employment and other money-earning activities did not carry the same aura of security. As a result, whether they had low or high levels of aspiration in action areas of land development and cash crop expansion, both Kieta and Buin villagers had a strong desire for future security and inheritance for children in mind.

Deferred gratification

Given the existing level of cash incomes on the one hand, and the levels of motivations and aspirations on the other, to what extent would Bougainville villagers be able to satisfy the goals to which they aspired? It is clear that to satisfy their aspired goals would require investment of money on a long-term perspective. This involves the pursuit of some form of deferred gratification, through which immediate gratification is denied for a higher but delayed reward.

Although based on a small sample survey, it was noted in Chapter 2 (see Table 2.11) that on average a Kieta household, after meeting consumption needs, had net monthly savings of about \$5 out of its cash income; this compared with about \$13 for an average Buin household. It must be noted that the consumption needs referred to above included items of cash expenditure which were not necessary for immediate needs. The immediate cash needs of an average Bougainville rural family are relatively few. A large part of the consumption expenditure was, in fact, luxury items such as alcohol, tinned foods,¹⁸ extra clothes, and other durable consumer goods (e.g. transistor radio, records, watches, kitchenware, camera, car, etc.). Thus, even existing types of consumption expenditure could be curtailed in favour of deferred gratification. Apart from this, there were many instances when a household

¹⁸ In many households, particularly in Kieta tinned foods, especially fish and meat, had become almost daily consumption items. In fact, in some cases the wage-employed young men of Kieta had taken to tinned fish and meat as the major food items at dinner at home with almost no traditional garden foods.

had a relatively large cash windfall, such as a compensation or royalty payment from BCP or a lumpy income at the flush season for cocoa and copra when prices were high. In other words, many households occasionally had the opportunity to choose between immediate and delayed rewards from use of disposable surplus cash incomes.

To what extent do Bougainville villagers use disposable surplus cash incomes to obtain delayed rewards through long-term investments or do they tend to spend their surplus on immediate gratification? In order to answer these questions, the respondents were asked how they would act in a hypothetical situation: 'What would you like to do if you were given \$500 which you did not have to repay? You can use the money in any way you like. Of the things on which you like to spend money, on which would you prefer to spend a major portion of the amount?' The same question was repeated with regard to \$50. The responses obtained were classified into three groups on the basis of major items of expenditure:

1. Expenditure for immediate return, such as discharge of family or clan obligations, consumer goods, gifts, tax, church contributions, etc.
2. Expenditure for intermediate return, such as house building, furniture, implements and tools, saving money for unspecified purposes, etc.
3. Expenditure for delayed capital return, such as land development, cash crop expansion, livestock, commerce or trading business, children's education, shareholdings, etc.

For both the \$500 and \$50 questions there were significant differences in response patterns between Kieta and Buin villagers. The propensity to spend for immediate returns was more pronounced among Kieta respondents than among Buin respondents. There was, however, a clear shift towards preference for immediate returns for both Kieta and Buin respondents when the available amount was reduced from \$500 to \$50. But the differential trend of response patterns was maintained in the sense that even with \$50 a significantly larger proportion of Buin respondents than Kieta respondents preferred an intermediate delayed reward. The shift in types of preferred expenditure patterns with the reduction of the available amount from \$500 to \$50 was understandable.

Table 4.6Preferred use of \$500 expressed by adult respondents

	Per cent of respondents preferring			K ² value at 2 d.f.
	Immediate return	Intermediate return	Capital return	
Kieta villagers (n = 225)	28.9	45.8	25.3	28.70*
Buin villagers (n = 228)	9.2	57.0	33.8	

* Significant at .01 level.

Table 4.7Preferred use of \$50 expressed by adult respondents

	Per cent of respondents preferring			K ² value at 2 d.f.
	Immediate return	Intermediate return	Capital return	
Kieta villagers (n = 225)	55.5	34.2	10.3	9.70*
Buin villagers (n = 228)	43.0	48.7	8.3	

* Significant at .01 level.

It seems that Kieta villagers have reached a stage where their ability to forego or delay certain consumption expenditure is less than that of their counterparts in Buin. Over a period, Kieta villagers have acquired a higher level of regular consumption. As observed in Chapter 2, consumption items such as alcohol, tinned foods, travel and consumer durable goods were more used by Kieta villagers than by Buin villagers. Kieta and Buin respondents preferred savings (mostly house saving) in almost equal proportions, but the

purpose for which they were saving was rarely specified¹⁹ by Kieta villagers, while a large number of Buin villagers specified children's education and welfare, land development and cash crop expansion as their objective. In the case of expenditures for delayed capital return, the interest of Buin respondents was mainly in land development and cash crop expansion, while Kieta respondents showed more interest in children's education. Similarly, improvement of housing was a major item for Buin villagers in expenditure for intermediate return, while very few Kieta villagers were interested in spending on housing. Comparatively less interest by Kieta villagers in house-improvement is understandable; since the development of the copper mine housing conditions in Kieta had been considerably improved and many respondents already had a European style house built by BCP as compensation.

Preparedness for change

It is one thing to have aspirations for better living; it is quite a different matter to organize action to achieve the aspired objectives. In between these two types of behaviour, there are a host of determining variables, such as available opportunities and resources, the personality and motivational patterns of the person concerned, his attitudinal dispositions and social constraints. For a Bougainville villager to participate in the modern money economy, and thereby to achieve his aspirations, necessitates certain basic changes in traditional behavioural patterns. These changes may involve new production methods, the acceptance of other innovations, migration to towns and acceptance of occupational mobility.

Now, these changes in behavioural patterns can occur only when the villagers become conscious of the changes in their immediate environment. The rural economy of Bougainville is rapidly becoming less and less a subsistence economy. This change was initiated by the introduction of cash

¹⁹ While investigating the compensation and royalty payments made to Kieta villagers by BCP, I was told by the local bank officials (Commonwealth Bank and NSW Bank at Arawa and Kieta respectively) that many Kieta villagers who received a large amount simply deposited the money in their bank accounts and so far did not touch it. Many others spent a substantial amount initially in buying cars or trucks or on alcohol and other consumer goods.

cropping and is now being accelerated by the development of the copper mine. How conscious are Bougainville villagers of the changes in their environment? Does this consciousness of change affect their assessment of the future? For, it may be argued that consciousness of past changes would either produce dissatisfaction with the present situation or incline them to think that the future could be better. In either case it would reveal a basic desire for economic, political and social change. Are the Bougainville villagers prepared for such change?

The methodology used by Strumpel (1965) in a revealing study of a similar situation in British Honduras has been used here with some modifications. The hypothesis to be tested was about the relationships between the softening of traditional ties and the preparedness for change. Are those Bougainville villagers who were conscious of change prepared to alter their way of life, that is, to enter new occupations and to move to new locations? It was hypothesized that those villagers who were dissatisfied with the present situation and/or optimistic about the future would be more likely to adapt themselves to the demands of the money economy, and especially to wage employment.

In order to test this hypothesis, the respondents were asked a series of specific open-ended questions.²⁰ Also an attempt was made to get a wider coverage of response-pattern by increasing the original sample size. This was done by interviewing separately more than one adult male member of the study households wherever possible. In other words, while the number of respondents in the sample was increased, the number of village households covered remained unchanged.

²⁰ The questions were as follows:

1. Change of outlook:

(a) Satisfaction with the present situation.

Question: 'Do you think the people here are generally satisfied with the present conditions of life or do they want some change?'

(b) Assessment of the past.

Question: 'What has changed for the better for the people around here during the last, say, ten years?'

Although the response pattern of Kieta and Buin villagers differed significantly (X^2 values being statistically significant), there was in almost all cases a consistent trend of relationships observed for both the groups. In assessing the changes in the last ten years, for example, a large majority of both Kieta and Buin respondents gave optimistic answers. The optimism of these villagers was apparent in the long list of positive changes mentioned by them which included political development (e.g. self-government of PNG, district

20 (continued)

(c) Evaluation of the future.

Question: 'How will the people around here be 10-15 years from now? Will they be better off or worse or same as now?'

(d) Feelings of national identity.

Question: 'Would you like to see Bougainville as an independent country or would you prefer it to be united with other countries or communities?'

2. Preparedness for change (locational mobility):

(a) Local mobility.

(i) Question: 'If the government would help you to establish a better cash crop plantation in another part of the country (PNG, including other parts of Bougainville district), would you be interested to move to the new place?'

(ii) Question: 'If you had enough money, would you prefer to live where you live now or in a town?'

(b) Occupational mobility.

(i) Question: 'If you had the chance to work in a factory or in a copper mine, would you be interested in working there? (If yes) would you give up cash cropping and gardening in the village if there were work in the factory or mine for the whole year?'

(ii) Question: 'Would you be glad if your children became farmers like you in future or would you like your children to work in factory or mine?'

government for Bougainville, impending independence of PNG and indigenization of public services), increase in communication and infrastructural facilities (e.g. roads, transport, wharf, airport, radio, newspaper, postal services, banks, markets, schools and vocational institutions, town development, etc.), development of the copper mine and other industries, general economic benefits (e.g. cash crop expansion, increase in wage-employment opportunities, increase in indigenous ownership of business enterprises, increase in cash income, etc.) and a general improvement of living conditions (e.g. housing, better tools and equipment, more travel leading to better knowledge and contacts with the outside world, a marked decrease in the practice of sorcery, the evolution of young leaders, etc.). The list of positive changes mentioned by a large majority of Kieta and Buin villagers is impressive and clearly indicates a high degree of consciousness of the changes that had taken place for the betterment of the people.

Table 4.8

Evaluation of the future differing from
assessment of the past (% of respondents)

Respondents	Assessment of the past		Evaluation of the future (optimistic)*
Kieta villagers (n = 320)	Positive	90	84
	Critical	10	6
Buin villagers (n = 417)	Positive	78	76
	Critical	22	6

* Recorded are percentages of optimistic answers out of those giving varying assessments of the past accordingly, that is, taking the number of respondents giving a particular type of assessment of the past as 100.

As indicated in Table 4.8, only a few (more Buin respondents than Kieta villagers) were found to be critical in the sense that they did not perceive any beneficial changes during the past 10-15 years. Some of them were extremely critical, to the extent that to them 'nothing' had changed so far. It is, however, impossible to think that those few who were critical in their assessments of the past were

completely unaware of the positive changes perceived by a large majority of respondents. Looking at the background of these few extremely 'critical' respondents, it was found that they were mostly from the groups motivationally described as 'subsistence farmer' and 'indifferent'. They were extremely dissatisfied with the trend of development either because it disturbed their traditional ways of life (as in the case of subsistence farmers) or because it could not benefit them economically to the desired extent (as in the case of the 'indifferent' group). It was quite possible that this small group of respondents were critical of the past changes not because of their ignorance but because of prevailing strong dissatisfaction.

Now, how did these respondents perceive the future? According to Linton (1951:76), people who have been disappointed by the lack of desirable progress in their communities should be pessimistic about the future. The data shown in Table 4.8 seem to confirm Linton's hypothesis. Those who were critical of the past changes expressed themselves much less often in an optimistic way about the future than those who perceived positive changes or improvement in the past.

Given the relationship between the assessment of the past and the future outlook, what was the degree of preparedness for change among Kieta and Buin villagers? This was considered here in relation to locational and occupational mobilities as dependent variables while the satisfaction with the present conditions, the evaluation of the future and the feeling of national identity (desire for independent Bougainville) as the independent variables. These independent variables were categorized under a general characteristic dimension of change of outlook. According to Strumpel (1965:206), 'feeling of national identity and claims for public assistance in case of need would be indicative of a gradual destruction of the autonomy of the economic and social structure of the village'. In other words, it is hypothesized that the more a villager desired the independence of Bougainville the more he would be willing to accept locational and occupational mobility in order to exploit the opportunities and thereby preserve the benefits for Bougainvillians only.

The relationships between the dependent and independent variables are presented in Table 4.9. It is interesting that a greater proportion of both Kieta and Buin respondents were found to be dissatisfied with the present, yet were

Table 4.9

Preparedness for change in relation to difference in outlook (%)

	Local mobility		Occupational mobility	
	To move to city	To move to place with better agriculture	Willing to work in industry	Prefer one's children not be farmers
<u>Kieta villagers (n = 320)</u>	Mean=5%	Mean=17%	Mean=78%	Mean=93%
A. Satisfaction with present conditions:				
Satisfied (n = 109)	5	16	76	90
Not satisfied (n = 211)	5	17	79	95
B. Evaluation of the future:				
Optimistic (n = 243)	5	10	93	99
Pessimistic (n = 77)	5	39	32	74
C. Feeling of national identity:				
Desire independence of Bougainville (n = 227)	6	15	87	97
All other answers (n = 93)				
<u>Buin villagers (n = 417)</u>	Mean=43%	Mean=36%	Mean=64%	Mean=84%
A. Satisfaction with present conditions:				
Satisfied (n = 175)	72	11	38	69
Not satisfied (n = 242)	22	54	83	95
B. Evaluation of the future:				
Optimistic (n = 254)	25	24	51	98
Pessimistic (n = 163)	71	54	84	62
C. Feeling of national identity:				
Desire for independence of Bougainville (n = 204)	78	58	97	99
All other answers (n = 213)	9	15	32	69

optimistic about the future. About the feeling of national identity, an overwhelmingly large majority of Kieta villagers desired the independence of Bougainville, while slightly less than half (49 per cent) the Buin villagers desired it. Now let us first take locational mobility as an index of preparedness for change. Compared to Buin respondents, a significantly, i.e. statistically significant lesser number of Kieta villagers were willing to move to a city or town or to a place with the prospect of better agriculture, irrespective of their category of outlook. Nor did they differ greatly between themselves in their willingness to move to a city or town according to their outlook, except that those who desired an independent Bougainville were more prepared to move to a city or town than those who did not desire independence. Similarly, more Kieta villagers who were pessimistic about the future expressed a willingness to move to a place with better agriculture than did those who were optimistic. The general reluctance of Kieta villagers towards locational mobility is clearly understandable. They were already located near the centre of all industrial, developmental and administrative activities, and any change in location would be disadvantageous in most respects than otherwise. To them locational mobility seemed to be unnecessary as they already had access to the benefits of town life, business and wage-employment opportunities.

The situation was completely different for many Buin villagers. A large majority of those who expressed pessimistic views about the future and a desire for an independent Bougainville said they would be willing to move to a city or town or to a place with better agriculture. Of those Buin villagers who expressed satisfaction with present conditions, more were willing to move to a city or town than those who expressed dissatisfaction, while it was just the reverse in the case of movement to a place with better agriculture. Those satisfied Buin villagers who expressed their preparedness to move to the city were mostly 'peasant farmers' as described earlier, while those dissatisfied were mostly 'indifferent' farmers. Having had already a firm linkage with cities or towns in terms of wage employment (most of the peasant families had at least one member in wage employment) and business transactions, the peasant farmers seemed to be more knowledgeable and confident and therefore more willing to move to the city, knowing that this need not impair satisfactory peasant activities in the villages. The dissatisfied Buin villagers seemed to lack precisely this type of confidence and therefore were more willing to move within

the known profession of agriculture.

Regarding occupational mobility there seemed to be a similar trend of responses between Kieta and Buin students with one exception. The exception was that while more of those Kieta villagers who had an optimistic view of the future expressed willingness to work in industry or mine, it was the pessimistic Buin villagers who more often expressed the same willingness. The explanation given above in relation to locational mobility would also explain this difference. Pessimistic Buin villagers were motivationally 'indifferent' and comprised the most dissatisfied group who had little scope for cash crop expansion. The wage employment in industry or mine seemed to them the only means to better their economic status and satisfy their aspirations. However, both for Kieta and Buin it was mainly those who were dissatisfied with the present and who desired independence, who expressed a willingness to join an industry.

Among those who were prepared to work in an industry or mine, 52 per cent of the Kieta respondents were unwilling to give up cash cropping and gardening in the village completely for a year, compared to 43 per cent of Buin villagers. This indicates the deep attachment to land characteristic of both Kieta and Buin villagers. To most of them land as a source of self-supply and security was irreplaceable. Even those who expressed a willingness to leave agricultural work in villages completely for a year considered it only a temporary absence. The difference between Kieta and Buin villagers was again perhaps owing to the locational advantage of the Kieta villagers. For many of the Kieta villagers, there was always the possibility of commuting from village to work place (which most of them preferred to do while employed in the Panguna/Arawa/Kieta complex of townships) and this enabled them to work in their gardens and cash crop plantations during holidays or in off-time. For those Buin villagers interested in industrial or mine work, such commuting was not practicable.

The foregoing analysis reveals relationships between outlook variables on the one hand and preparedness to change in terms of locational and occupational mobilities on the other. The direction or nature of these relationships sometimes differed with differing situational contexts. It is in this regard that the locational advantage of Kieta villages contributed to the differences observed between Kieta and Buin villagers. Considering the locational advantage of the

Kieta villagers, the Buin villagers seemed to be relatively more prepared for change. The data on employment with BCP given in Chapter 2 also proved this. Further evidence of the Buin villagers' greater preparedness for change was forthcoming when respondents were asked about their expectations from the wage employment of their children if the children were to leave farming. The Kieta respondents expected an average increase of \$1412 in income as compared to the \$542 expected by Buin respondents. In other words, Buin respondents were willing to let their children go for wage employment at less than half the amount expected by Kieta villagers. But it was clear that irrespective of their outlook a large majority of both Kieta and Buin respondents certainly would not like their children to be in farming. This preference had a profound impact on the career choices of the young Bougainvillians as discussed in Chapter 3 (see Table 3.3).

The relationship between the feeling of national identity and preparedness for change needs some explanation. Both among Kieta and Buin respondents a large majority of those who desired an independent Bougainville were in the motivational profile of the 'indifferent' category. They were generally very dissatisfied with their present lot and with their motivational and resource constraints they were unable to compete with the 'entrepreneurs' and 'peasant' farmers. Most were prepared to work in industry or in the mine as a way out. But here also they seemed to face severe competition from the privileged group of their own fellow-Bougainvillians (entrepreneur and peasant farmer) and also from non-Bougainvillian Papua New Guineans. In such competition, this 'indifferent' group was most likely to be the losers and they were therefore sceptical and vocal in their demands for the political independence of Bougainville. Consequently this is the group that makes elaborate demands for government assistance and for preference to 'sons of the soil' for wage employment in Bougainville. The reason for such a strong desire for a politically independent Bougainville was simple: a politically independent government would enforce a deliberate policy of preference to 'sons of the soil' for wage-employment opportunities in Bougainville and would lessen the competition in the job market by excluding non-Bougainvillian Papua New Guineans. The following remarks of an old motivationally 'indifferent' Buin respondent whose Form 4 educated son had failed to obtain a desired job in BCP for the last two years is characteristic of such demand:

These Papuans and Tolais are earning a lot of money

from our place and sending this money back to their villages. It is for them only our children are not getting good jobs. How is Bougainville going to be benefited from these Papuans and Tolais? We need more money to develop our villages. If our children are employed, the money will come to our villages. They should employ our children first.

In the prevailing nationalistic political climate of Bougainville, such feelings seemed to be shared by many Bougainvillians, but it was comparatively stronger in the case of the 'indifferent' group for obvious reasons. It was from these feelings that the strong relationship observed between the desire for an independent Bougainville and a preparedness for occupational mobility had developed. Also, the fact that a large majority of Kieta and Buin adult villagers (especially in Kieta) desired political independence for Bougainville provided a political climate which had an observable impact on the minds of the young Bougainvillians studied in Chapter 3.

Stabilization in wage employment

One of the oft-repeated complaints of the employers in Papua New Guinea has been about the poor quality of indigenous labour available from the subsistence-peasant economies - that it is always in flux, extremely choosy and never stabilized to working regularly and continuously as is required in industries and mines. In addition, it has suited many employers to think that the cash earnings of the indigenous labourers are mainly a supplement to the village subsistence economy. There is certainly some truth in these complaints and beliefs. But as a result there has evolved a vicious circle of low wages and low productivity among indigenous labourers. Many employers found it convenient to recruit a stream of low-paid casual labour for which they need not feel much responsibility. As Myint (1964:59) points out, 'the switch-over from a low-wage, low productivity to a high-wage, high productivity pattern would involve not merely raising wages, but also the very heavy expenses and responsibilities of converting a casual labour force into a stabilized labour force on a permanent basis'. But how do the Bougainville villagers feel about wage employment on a permanent basis? What are their attitudes towards remaining in wage employment as a lifetime means of living? Now that the opportunities for wage employment have increased considerably in Bougainville, particularly with the development of

the copper mine, the improved educational facilities and the government policy of indigenization of the labour force, the question of a stabilized labour force gains crucial importance.

It will be recalled that a large majority of Kieta and Buin villagers reported that they would prefer their children to be engaged in non-farming professions. On the other hand, to send their young children away from home for wage employment certainly calls for a sacrifice, emotionally as well as economically, for the parents. How do the adult male villagers of Kieta and Buin subdistricts view the prospect of their children being in wage employment as an alternative to farming? The respondents were asked to indicate what they would like their children or any other family member to do in future if they were wage-employed, say, in BCP or in any other organizations in Bougainville or in any other part of Papua New Guinea.

The responses to these questions were classified into two categories: (i) indicating temporary stabilization in wage employment and (ii) indicating permanent stabilization in wage employment.²¹

The response-patterns shown in Table 4.10 seem strongly to confirm the popular notion among employers about the instability of indigenous labour in wage employment. For a large majority of the adult villagers investigated, both in Kieta and Buin subdistricts, wage employment was not envisaged as a permanent vocation away from the home village; it was viewed merely as a temporary phase, acceptable only for the purpose of making sufficient money to fulfil a set of predetermined goals, such as to pay tax, school fees, bride price, to avoid council tax or disputes in the village, to buy some luxury or durable consumer goods, to supplement cash income needed for expansion of cash crops in village, to accumulate cash to start an independent small business, to

²¹ Indicative responses of temporary stabilization were: 'will return home at some future date', 'will stay in work place, but will keep close regular contact with village', 'will return home on retirement', 'will return to village as soon as sufficient money is saved', etc. The responses indicating permanent stabilization were: 'will always remain and live in the place of employment', 'will live and make the place of employment as if it is his home village'.

Table 4.10

Attitudes regarding commitment to wage employment

Respondents	Commitment for		χ^2 value at 1 d.f.	P
	Temporary stabilization	Permanent stabilization		
Kieta villagers (n = 320)	96	4	84.05	<.01
Buin villagers (n = 417)	69	31		

build a house with permanent materials or simply to see the 'bright lights' of town and the outside world. However, it was quite clear that Buin villagers were more inclined than the Kieta villagers to commit themselves to permanent stabilization in wage employment away from home. This inclination was also shown by the responses to a question about their preferred locations for wage employment. Of the Kieta respondents 89 per cent showed preferences for location of wage employment within Bougainville district while only 64 per cent of Buin respondents gave a comparable response.

There are several interrelated plausible reasons for such differential commitment to wage employment between the adult villagers of Kieta and Buin subdistrict. First there is the locational advantage of the Kieta villagers under study. As pointed out before, unlike their counterparts in Buin, Kieta villagers were able to take advantage of the expanded wage-employment opportunities without drastically disturbing their close contacts with home villages. Secondly, experience of wage employment seemed to be an influential factor in commitment to wage employment in that the longer a man's past experience in wage employment the more open and committed he tended to be. Since more Buin respondents had past wage-employment experience, for a longer period (and also more of them outside Bougainville district) than Kieta respondents (see Table 2.6), Buin villagers tended to commit their children permanently into wage employment more often than Kieta villagers. This tendency was clearly evidenced when respondents were asked to indicate their

preference for non-farming professions for their children. Of the Buin respondents 74 per cent expressed preference for wage employment or salaried jobs, compared to 60 per cent of the Kieta respondents. Thirdly, the motivationally 'indifferent' group, who were most eager to shift to the wage-employment sector, seemed to be more dissatisfied and frustrated with conditions in Buin villages than their counterparts in Kieta villages. As a result, the 'indifferent' group in Buin villages were not only willing to have their children permanently established in wage employment, but also they were more often ready, even though reluctantly, to accept a locational change to wage employment outside Bougainville district. But in spite of a general preference for employment in industry or mine (more than 70 per cent) for their children, very few (less than 30 per cent in both the cases) would like their children to live in cities or towns. Ironically, most of these kinds of wage-employment opportunities were city- or town-based, a fact which was not unknown to them. A number of factors contributed to their dislike of city or town living, and one was their prejudice against non-Bougainvillian Papua New Guineans. In this there was a striking difference between Kieta and Buin villagers. When the respondents were classified according to levels of prejudice,²² for example, the Buin villagers were found to be far less prejudiced about living along side the non-

²² The degree of prejudice was measured by five agree/disagree statements indicating prejudice against non-Bougainvillian Papua New Guinean migrant workers in Bougainville. The five statements were: (1) the people coming from other parts of Papua New Guinea to work in Bougainville should live as a separate group pretty much among themselves; (2) the migrant PNG workers in Bougainville should live as a separate group in an exclusively separate area; (3) the migrant PNG workers in Bougainville should not live in the same area along with Bougainvillians as one of their own people; (4) it is not right that the migrant PNG workers should move to live close to my neighbourhood; and (5) It is wrong that the migrant PNG workers should move to live close to my village. Agreement to the statements indicated prejudice and was scored 1, while disagreement to the statements meant unprejudiced and was scored 0. A total obtained score of 0 represented 'not prejudiced', 1-3 was 'low prejudiced', and 4-5 was 'highly prejudiced'.

Bougainvillian Papua New Guineans than were Kieta respondents. Although the measure of prejudice used in the study was specifically related to migrant PNG workers in Bougainville district, it indicated a general trend. A similar differential trend of prejudice against non-Bougainvillian Papua New Guineans was observed between the young Bougainvillian students of Kieta and Buin subdistricts (see Table 3.9).

Table 4.11

Respondents classified according to levels of prejudice (%)

Respondents	Not prej- udiced	Low prej- udiced	Highly prejudiced	X^2 value at 2 d.f.	P
Kieta villagers (n = 320)	0	70	30		
Buin villagers (n = 417)	44	29	27	80.20	<.01

Like the young Bougainvillians, the adult villagers were also particularly prejudiced against the 'highlanders'. The unhappy experiences of the Kieta villagers in their day-to-day contacts with a large mass of migrant PNG workers in the copper mine were certainly largely responsible for this strong prejudice. Buin villagers, on the other hand, did not have to encounter the migrant PNG workers so often or so closely as did the Kieta villagers. Moreover, the presence of a large number of migrant workers was more apparent to the Kieta villagers. Unfortunately, this greater visibility of the migrant group in Kieta villages was linked with the many unhappy experiences involving migrant workers, and this is why the Kieta villagers were so highly prejudiced against the non-Bougainvillian Papua New Guinean. The fact that the Buin villagers were less prejudiced against non-Bougainvillian Papua New Guineans partly explained their greater willingness for and commitment to wage employment compared to the Kieta villagers. For participation in wage employment, particularly in industry or mine, involved unavoidable interactions and interdependence between ethnic

groups. If someone happens to be strongly prejudiced against another man or a group of men for some reason or other, it is very unlikely that he will wish to be associated with that other man or group. The most likely behavioural response would be an attempt to avoid interaction. It was this simple behavioural phenomenon which perhaps made many Kieta villagers less committed than Buin villagers to wage employment, particularly in industry or mine or in situations which required locational mobility outside Bougainville district.

Appendix 4.1Percentage distribution of adult male villagers according to levels of aspiration in relation to different goals1. Children's education

	No further advancement	Primary	Vocational	High school	University
Kieta villagers (n = 225)	0	13	17	27	43
Buin villagers (n = 228)	0	23	16	27	34

2. Land development (acres)

	0	0.1-1.0	1.1-2.0	2.1-3.0	3.1-4.0	4.1-5.0	Over 5
Kieta villagers (n = 225)	0	0	0	6	35	24	35
Buin villagers (n = 228)	0	0	11	28	20	7	34

3. Cash cropping (yearly new plantings - trees)

	0	1 - 30	31 - 50	51 - 100	Over 100
Kieta villagers (n = 225)	0	0	0	37	63
Buin villagers (n = 228)	0	2	28	27	43

4. Cash income (\$) (income increase per year)

	0	1-100	101-200	201-300	301-400	401-500	Over 500
Kieta villagers (n = 225)	2	11	19	11	27	14	16
Buin villagers (n = 228)	0	38	12	9	7	16	18

5. Housing

	No improvement	Iron roofing	European style with permanent materials
Kieta villagers (n = 225)	32	1	67
Buin villagers (n = 228)	39	13	48

Appendix 4.1 (continued)6. Cash crop production (increase in bags)

	0	1-3	4-6	7-9	10 or more
Kieta villagers (n = 225)	2	0	9	30	59
Buin villagers (n = 228)	2	9	23	23	43

7. Capital investment (number of projects)

	0	1	2	3	4	5 or more
Kieta villagers (n = 225)	2	57	32	6	0	3
Buin villagers (n = 228)	13	66	16	2	0	3

8. Furniture (number of items)

	0	1	2	3	4	5 or more
Kieta villagers (n = 225)	1	8	19	32	19	21
Buin villagers (n = 228)	3	66	0	2	0	29

9. Other material possessions (number of items)

	0	1	2	3	4	5 or more
Kieta villagers (n = 225)	5	8	11	42	17	17
Buin villagers (n = 228)	2	66	0	0	0	32

Chapter 5

Conclusion

This study has set out to compare the motivational responses of two regional groups of Bougainvillians towards money earning activities. It is concerned with the adaptive response of Bougainvillians towards the new economic environment presented by a cash economy, largely created and accelerated by the development of the copper mine. Kieta and Buin subdistricts provided a useful setting for systematic comparative analysis of such motivation as they comprised regional groups of Bougainvillians with different levels of exposure to these new economic opportunities.

In the first two chapters an attempt was made to provide a background picture of the differential exposure of Kieta and Buin subdistricts to the industrial-monetary economy and to conquer its effects on the economic life of the villages. The two subdistricts seemed to be at different stages of development. Kieta subdistrict, where the copper mine was located, had had a phenomenally rapid development in terms of communications and other infrastructural facilities, money earning opportunities through wage employment and business enterprises, the availability of institutional help and advice, the development of towns, the inflow of migrant labourers, the growth of co-operative enterprises and food markets and, more importantly, the intensification of political activities. In short, Kieta subdistrict has experienced a rapid process of industrialization-urbanization largely as a result of the copper mine. Buin subdistrict, on the other hand, has remained far behind in development. However, there have been two significant developments in Buin subdistrict that have changed the economic life there considerably: (i) the opening up of the trans-island road and (ii) the cocoa 'boom', both of which resulted in a rapid expansion of cash crop plantations and therefore of cash earnings. The differences in the impact of the two different kinds of development in the two subdistricts were conspicuous. The cash earnings of Kieta villagers from marketing subsistence produce and their

rate of participation in this money earning activity were greater than those of Buin villagers. Buin villagers, on the other hand, were greatly involved in cash crop expansion and thus earned more from cash crops than Kieta villagers. In the case of wage employment, however, the participation of Buin villagers both in the past as well as presently was greater than that of the Kieta villagers. Even in the copper mine the proportion of Buin workers was larger than that of Kieta workers. In addition there were various business enterprises such as trade stores, trucking business, co-operatives and other public business enterprises with shareholding by the Bougainvillians. In these business enterprises Kieta subdistrict gained more than Buin. The average cash income from all sources was slightly higher for a Buin household than for a Kieta household. But Kieta households seemed to have acquired greater consumption needs than Buin households, leaving less net savings after consumption expenditure for a Kieta household than for its counterpart in Buin.

Having briefly compared the economic life of the two subdistricts as evidence of the different impact of the money economy, the study then went on to analyse motivations and attitudes. In Chapter 3 the attitudes and motivations of a sample of young Bougainvillian students of Kieta and Buin subdistricts were analysed. As potential entrants to the labour market, these young students were considered to be an important segment of the population in the analysis of the Bougainvillians' response to their new economic environment.

Both in terms of occupational prestige and future career aspirations, almost all the young Bougainvillians of Kieta and Buin subdistricts were found to be interested in wage employment or salaried jobs rather than traditional farming occupations. Buin students tended to be less realistic in their career aspirations than the Kieta students. Although the students were generally aware that there was a distinction between desirable and obtainable jobs, the income aspirations of Buin students for different chosen occupations were not realistic, for in most cases they were under- or over-estimations caused by their lack of knowledge. The prevailing sentiment of Bougainville nationalism seemed to have a strong influence on the perception of occupational prestige as well as on career aspirations. Unskilled manual occupations requiring no formal training and education were accorded low prestige. In the career aspirations there was a clear evidence of sex-role differentiations between the girls and boys. The young Bougainvillians seemed to have an ambiguous

attitude towards jobs in BCP in that they perceived the advantages but were critical of BCP's policies and impact. To most young students, money was important as an incentive for wage employment only when the job satisfied the basic socio-political desirability. In spite of their general preferences for wage employment as a future career, a complete severance from village ties was not envisaged by the young Bougainvillians.

Socially, students of both Kieta and Buin subdistricts had a clear image about Bougainvillians differentiating themselves from other ethnic groups. However, except towards 'highlanders', they had a generally tolerant attitude towards the other ethnic groups, including Europeans. Motivationally, the Bougainvillian students seemed to have higher achievement and power motivation than affiliation motivation. The prevailing intense nationalistic feelings had contributed to high achievement and power motivation among the students. Students with high achievement motivation tended to choose those medium-level occupations which they could expect to achieve, while the low achievers preferred either high or low level occupations, involving either over- or under-estimation of their probability of success. One of the most frequently mentioned achievement imageries was owning or starting a business. But the business enterprises mentioned by the students mostly followed the relatively familiar line without thought of innovation. The level of achievement motivation alone was not positively linked with commitment to participation in the monetary sector of the economy, particularly in wage employment. Thus, in spite of a relatively low level of achievement motivation, the Buin students demonstrated greater attitudinal commitment to wage employment than their counterparts in Kieta subdistrict.

Lastly, in Chapter 4, an analysis of relevant motivations and attitudes of a sample of adult male villagers of both Kieta and Buin subdistrict was presented. The motivational patterns of adult male villagers were studied to see how far the active decision makers were prepared for successful participation in money earning activities. An attempt was also made to analyse the home environment as one of the crucial determinants for the future response patterns of young Bougainvillians.

In general, the personality profile of a Bougainvillian man was found to be emotionally reserved, touched by the conflicting influences of cultural change and with a streak

of fatalism. One fundamental motivation of Bougainvillian men was the acquisition of wealth to make life easy and happy. With their intense desire for money, there was often also a broader social conscience that envisaged using money on social projects for the benefit of the community. Their ambition for wealth was always linked with some familiar line of activity, involving known opportunities of which they had past experience - indicating their lack of innovativeness. Because of this lack, a Bougainvillian man tended to take what the existing situation offered him without trying to seek something better. As a result he seemed to be extremely sensitive and emotionally attached to possession of land. For land to a Bougainvillian was the only intimately known and immediately available resource to use for acquiring wealth or money. Tolerance, rather than aggression or apathy, was a general characteristic of a Bougainvillian man.

There was a similarity in the motivational patterns of adult villagers and young students. It was observed that those of adult males were an important influence in the development of affiliation, power and achievement motivation in young children, while external factors such as school environment and formal education tended to contribute to the development of achievement motivation only. The study revealed that the adult male villagers of both Kieta and Buin subdistricts could be classified into a motivational class structure directly related to economic class differentiations. In the pyramidal class structure, a very small proportion at the top of the pyramid had control over substantial means of production, while a large majority below were motivationally weak and economically disadvantaged to varying degrees. The different classes applied different strategies of behavioural response towards money-earning activities. In the lower rungs of the class structure, both Kieta and Buin villagers were to a large extent conscious of the sharpened class distinctions, mainly in terms of social and economic inequalities that had developed both within as well as between the regions.

Compared to Kieta villagers, the adult villagers of Buin tended to have lower expectations for improving their status in the future. But because of greater consumption needs acquired over a period, the Kieta villagers had a greater tendency to spend for immediate gratification, whilst Buin villagers preferred deferred gratification through long-term productive investments.

There were apparent differences between Kieta and Buin villagers in the benefits they had experienced from development. The assessment of the past was found to be strongly related to the evaluation of the future. Although a large majority of both Kieta and Buin villagers were positive in their assessment of the past and showed optimism for the future, a relatively larger proportion of Buin villagers took a very critical view of the past. These were mostly from disadvantaged classes in the lower part of the pyramidal class structure.

Irrespective of their view of present conditions, future development and national identity, an overwhelming majority of the adult males of both Kieta and Buin subdistricts preferred their children to be in wage employment. This attitude was clearly reflected in the career aspiration of the young Bougainvillians. There was a relationship between their view of the present and their preparedness for change in terms of locational and occupational mobilities. In Kieta, those who were pessimistic in their evaluation of the future and those who desired the independence of Bougainville tended to be more prepared for locational change, while those who were optimistic of the future and had a strong desire for an independent Bougainville were sympathetic towards occupational changes. In Buin, on the other hand, those who were pessimistic and desired independence of Bougainville were prepared for locational as well as occupational mobility. Considering the locational advantage enjoyed by Kieta over Buin, Buin villagers had a greater preparedness for change in relation to locational as well as occupational mobility. Although a large majority of both Kieta and Buin villagers were prepared to work in industry or the mine, most did not like to give up village (land-based) economic activities such as cash cropping and gardening. However Buin villagers seemed to have greater commitment than Kieta villagers to wage employment in that they tended to be stabilized in wage employment for a longer period of time. The tendency for greater stability in wage employment among Buin villagers was influenced by their awareness of economic disparity between the two regions and by their dissatisfaction with present conditions; this was particularly so among the lower section of the class structure. Also, Buin villagers were far less prejudiced against other ethnic groups, and this contributed to their willingness to work in a multiracial situation.

There are numerous interesting related questions which are left unanswered in the study. But the story of Bougainville

as reported here points to some specific conclusions with important policy implications.

It is clear that Bougainville society is not the same as it was before the development of the copper mine. It has been changed considerably and in some cases drastically. The chain of economic, political, social, cultural, and behavioural consequences that followed the development of the copper mine was really a continuation of the process of transition started earlier with the introduction of money economy.

As a result of the economic changes brought about by the copper mine, the subsistence affluent, pre-industrial Bougainville society faced basically a manpower problem; that is, it had to find skilled and unskilled labour to meet the needs of new firms, factories, mines, and business enterprises, and to find means of training technical, managerial and administrative manpower. It was with the problem of the unskilled and skilled manpower in response to the new money-earning opportunities, particularly wage employment, that this study was concerned. People in pre-industrial agricultural societies do not ordinarily relinquish, even temporarily, the security of their subsistence economy back in the villages unless they are compelled to or unless certain changes occur within the society. In fact, given the security of a subsistence economy enriched by cash cropping, a Bougainvillian had few reasons to leave the village and plenty of reasons to stay. There was no reason to expect that many Bougainvillians would willingly expose themselves to the uncertain world of wage employment in mines and industries. The real wonder therefore is that there were so many volunteers for wage employment (and the number was quite large) among the two regional groups under investigation. They took eagerly to wage employment, for themselves as well as for their children, as it became available. It is not a skilled labour force. Nor is it, mostly, a committed labour force; to a large extent it prefers to be 'migratory', and to keep close ties to village through periodic visits. But it is a labour force which may later accept commitment to wage employment when it is possible and worthwhile to do so.

The rapid adjustment made by the Bougainvillians over a short period of time, in spite of their unhappy experiences with the copper mine, has demonstrated a cultural resilience and an ability to adapt and accommodate. The personality of the Bougainvillians, their relevant attitudes and motivations, and the changes that have taken place in their general outlook,

have facilitated the process of transition. In fact, very soon a situation may arise when the rate of economic development may not be able to keep pace with the demands of Bougainvillians for various money-earning activities. Even at the time of my investigations many Bougainvillians felt extremely dissatisfied with existing conditions. Given the close relationship between their assessment of the past and their evaluation of the future, such dissatisfaction may turn into apathy rather than a motivating force for change. The government, the national leaders and the copper mine should all be sensitive to this possibility and should respond to it in their development planning. In fact, the Bougainville Copper Mine, in its expected role as the 'leading sector', should be able to raise productivity and rate of development in the rest of the economy. To do that, the mining company may need to make some new policy decisions regarding selection for recruitment, training, promotions, wage structure, housing, general working conditions, its relations with the community and most importantly its developmental role and business advisory services to the community. It is, for example, frustrating rather than encouraging to recruit or promote a Bougainvillian to a high-sounding well paid position without giving him responsibility consonant with the position. Similarly, the mining company would do well to make a deliberate policy to minimize income inequalities between and within regions. As a Bougainvillian student of Papua New Guinea University observed:

The rapid development in the area, especially within a 26 km radius of the mine, has contributed greatly to regional inequality in the province. Certain individuals and groups there are growing richer and richer at even a much faster rate than the other sections of the island's community (Makis:1975).

Perhaps in the early stages of economic growth, as in Bougainville, regional inequalities are inevitable. But the question is, how wide can the inequalities be before the social equilibrium breaks down? Unfortunately, the development of the copper mine has immensely sharpened the inequalities both between and within regions, and a clear class structure with conspicuous economic differentiations has evolved. A very small group, motivationally strong and having a richer resource base, has exploited the economic opportunities to their maximum benefit, while the large majority has been left behind. It is disturbing that this has become so conspicuous that the Bougainvillians at the lower end of the class

structure have become acutely class conscious. As the same Bougainvillian University student scornfully remarked:

the mad 'rat-race' of the Western Capitalist Mode of Production is taking root, faster than one realizes.

So far, however, economic inequality and class consciousness have acted more as a driving force for demands for political independence of Bougainville, for preference to 'sons of the soil' in jobs and for more government assistance and help. They have also driven Bougainvillians to explore various available money-earning opportunities including wage employment. The problem is that if they are stretched too far and unable to satisfy their motivational demand, the same class consciousness and income inequalities may take an ugly turn, to apathy, if not to upheaval. It is on this problem that both the government and the copper mine (and other developmental agencies, such as the Development Bank) should focus their sympathetic attention. The questions to be asked by the policy makers are: Should the copper mine extend its business advisory services beyond the copper mine area? What should be the policy for redistribution of benefits and how? What are the possibilities for small-scale industries based on local resources? What should be the organizational support system and local organization pattern to facilitate reduction of inequities? So far government departments have neglected the modernization and diversification of subsistence type production. The improvement of subsistence type production with the application of available scientific technologies, and the organization of markets for its produce, would be very helpful. Since most Bougainvillians are not particularly innovative owing perhaps to lack of proper knowledge and experience, 'grass roots' level advisory services in terms of training and extension work will be needed.

The young Bougainvillians seem to be more influenced in their attitudes, motivations and outlook by the home environment back in the villages, as characterized by parental attitudes, than by formal education and school environment. It is therefore all the more necessary to focus developmental attention on villages in order to generate a congenial base for the right kind of motivation to encourage the young Bougainvillians to sustain participation in the money economy in the future.

The widespread acceptance of change among the Bougainvillians in response to the demands of the monetary economy seems to have been greatly influenced by the prevailing political climate. Many of their relevant attitudes and motivations are coloured by an intense feeling of national identity in the form of Bougainville nationalism. In fact the results of the study even suggest a causal relationship between the feelings of national identity or desire for an independent Bougainville on the one hand and willingness to accept locational and occupational mobility on the other. This implies that a deliberate policy of spreading and intensifying this feeling of national identity could be a means of enhancing motivation to participate in money-earning activities, especially in wage employment. It may be that a diluted version of independent Bougainville, if properly worked out, could provide an equally effective motivating force. Much will depend on the future political development of Papua New Guinea. For the present it seems that Bougainville nationalism is a dominant motivating force in the process of Bougainville's transition to money economy.

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