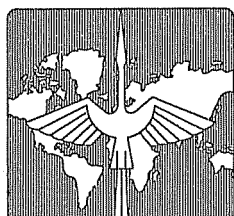


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INTRODUCTION

That migration is a result of perceived inequality has been positively established by comprehensive national studies (Herrick 1965; Caldwell 1969; Pryor 1975; Guarnaut 1977) and by two or three thousand village-based or local studies (Connell 1976). But whereas the mainstream of migration studies, following the Todaro model (Todaro 1969), emphasises rural-urban differentials, the 'Connell hypothesis' emphasises intra-rural inequality as a vital contributing factor (Connell 1976: 196), and the 'Amin argument' stresses analysis of the evolution and structures of inequality (Amin 1972: 90-3).

The Todaro model is a useful construct for a market view of migration - units of labour moving in response to income differentials and restrained by the probability of employment. The Todaro analysis necessarily ignores the spatial expression of urban migration (location and pattern of settlements of migrants of different kinds and motivations) which is of course vital to those who have to deal with the urban effects of the migration process. It also ignores the fact that 'migration to a particular destination can continue although the original factors which caused the movement have disappeared' (May and Skeldon 1975: 28), and that the individual decision making implicit in the model is often conditioned by rural community interests.

The Connell hypothesis directs our attention to the rural conditions under which people (as individuals or in functional groups) are pressed or induced to seek opportunities elsewhere - in effect, differentiating amongst the amorphous mass of potential migrants as assumed in the Todaro model. The Amin argument is that the incidence of inequality - intra-rural, rural-urban or intra-urban - is less worthy of attention and action than the sources and structures of inequality, which are to be found mainly in the partial integration of traditional, locally-oriented communities into the world system of production and exchange.

The structure and processes of one kind of integration were described and explained in John Friedmann's

general theory of polarised development (Friedmann 1972). The core-periphery dichotomy in the theory must be seen as too rigid in the light of McGee's discussions of the rural-urban continuum (McGee 1971) and the proto-proletariat (McGee 1976), and after such analyses of urban integration as provided by Turner (1968), Brett (1974) and Hart (1972, 1973). Furthermore, Friedmann himself admits that his fundamental optimism about the benign effect of urban growth on national development was no longer tenable in the face of the arguments and evidence provided by the 'school of structural dependency' (Friedmann and Wulff 1976: 36).

But Friedmann's analysis of internal relations should not be discarded from studies of migration processes. The present paper draws on evidence of migration from the margins of the export-oriented rural economy to the margins of the urban system in Papua New Guinea, to expand the model of polarised development with an understanding of:

- (1) evolution of inequality and the consequent migrant streams;
- (2) adjustment of migrants to the opportunity structure in various contexts.

DISCUSSION OF HYPOTHESES

Certainly the case of Papua New Guinea over the last fifteen years fits Friedmann's exposition (1972: 93) of authority-dependency relations in a spatial system. Development has had its origin in a relatively small number of centres of change; peripheral regions have had their development paths determined chiefly by core region institutions with respect to which they stand in a relation of substantial dependency; decisions vitally affecting local populations have been made by core region authorities; and sustained contact with the cores has aroused portions of the peripheral population not only to possible new ways of life, but also to awareness of their own comparative advantage in gaining access to them. Of the reactions to this condition suggested by Friedmann, the less pervasive one has been insistence upon greater autonomy for the periphery,² and the more pervasive one has been emigration to the core to be drawn into the structures of authority, organisation and opportunity implanted and developed by and for the process of integration into the world capitalist system.

Such relationships and processes, which I have paraphrased only briefly, provide an understanding of the concealed processes of which migration is one manifestation. The core-periphery dichotomy is too rigid, however, both as

an abstract of political, social and economic relationships, and as a description of spatial relationships. There are gradations in the conditions of the periphery, related to the frictions of Friedmann's 'dominance effect' and information flow, and to the degree of integration into the world economy. There are also gradations within the core (Hart 1973; McGee 1976, 1979; Turner 1968), as can be seen in those migrants from the periphery who find themselves on the economic, social and political margins of the core and who strive to be included in the new ways of life through regular or formal employment, through changes in their organisation and through adaptation of values and behaviour.

In the general theory of polarised development, Friedmann defined core regions as territorially organised subsystems of society that have a high capacity for innovative change (Friedmann 1972: 93). Thus he gave them no spatial dimension, and he ignored the vital connections between 'subsystems', innovative change' and the forces of incorporation into the world capitalist system. In a later article, Friedmann and Sullivan (1975: 476) examined a more finite core, a city in a developing economy, and described its employment structure. The relevant components for what follows in this paper are:

privileged sector	protected sector	non-protected sector	survival sector
corresponding to:			
capitalist and salaried sector		wage sector	inter- mittent income
			no in- come

Reference to the real world revealed to Friedmann and Sullivan that there is differentiation within the core, but their characterisation of this differentiation in terms of sectors (implying class?) and income seems arbitrary and vague and analytically unhelpful in comparison with other writers' formulations. For example, McGee modelled the internal and external flows of a dependent economy so as to locate the 'pasar economy' in the total system³ (McGee 1971: 70). Santos elaborated the basic model in much more detail, so leading to a better understanding of urban opportunities and constraints (Santos 1971). Hart, using evidence from Ghana, described the diversity of income-earning opportunities and the consequent degrees of commitment to the urban system (Hart 1972: 333; 1973: 68-70). Turner and Brett abstracted a pattern of integration and activity among urban migrants, relating the kind and location of housing

to the interests of migrants and the earning opportunities available to them (Turner 1968; Brett 1974). McGee later widened his analysis of the Third World city to describe the 'proto-proletariat', that heterogeneous group delineated by its location in urban space and structure, its system of organisation and production and the opportunities it takes up (McGee 1976).

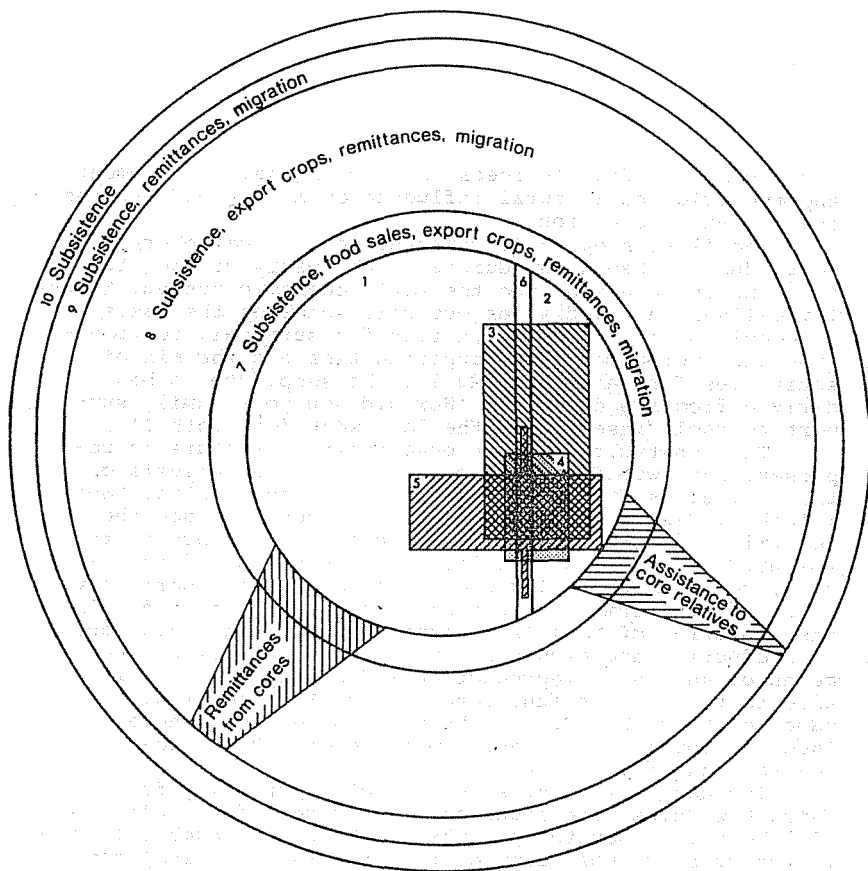
Brett, working from Turner's hypotheses, categorised migrants as 'bridgeheaders' (those attempting a first establishment), 'consolidators' (increasing commitment to and dependence on urban life) and 'middle income' (established, having moved inwards from Friedmann and Sullivan's 'survival sector'). For the bridgeheaders, opportunity is the most pressing problem, so that location is the imperative in housing, and concern with security, identity, freehold and modern standard shelter is weak. For the consolidators, security and freehold ownership are more important concerns; the needs of identity and modern shelter become stronger, and the pressures of income opportunity and hence location become less severe. For the middle income people, security is established, there is more concern with opportunity and location of a higher-status kind, and stronger interest in identity and the quality of housing (Brett 1974: 175-83).

One of the main advantages of this kind of analysis and interpretation is that it allows to the migrants the existential needs which Todaro's model and core-periphery abstractions ignore or obscure, and it allows a certain degree of self-determination in the process of integration. In the midst of this exposition, one finds the statement:

The fallacy of evaluating or classifying the housing environment independently of the orientation and motivation of its users should be apparent' (Brett 1974: 176).

But in concentrating on urban adaptations, Brett ascribes to migrants a degree of individualism and independence of rural history and rural orientation that is unwarranted by the evidence (for example, Bedford 1973; Hart 1972). Brett's exposition also contains a whiff of excessive optimism about the progressive adaptation of urban dwellers, similar to that of Friedmann in relation to the benign effect of urbanisation. McGee (1979) avoids the imputation of 'progress' to 'adaptation', by focussing on articulation of modes of production and the attendant processes of dissolution and conservation.

A useful understanding of forces and processes in integration and migration can be gained from tying together Turner's and Brett's analyses of needs and opportunity, Hart's and Santos' descriptions of opportunity



- | | |
|------------------------------------|-------------------------------|
| 1. regular employment | 7. rural opportunities - |
| 2. irregular employment | subsistence, food sales, |
| 3. gardens/fishing for subsistence | export crops, remittances |
| and/or sales | from cores, migration |
| 4. informal activities, legal | 8. subsistence, export crops, |
| and illegal | remittances, migration |
| 5. support from village sources, | 9. subsistence, remittances, |
| especially food | migration |
| 6. no wage employment in relevant | 10. subsistence |
| period, e.g. visitors, passengers | |

Figure 1: Structure of opportunity from core employment to unincorporated periphery.

structure, Friedmann's ideas about polarised development and the evidence of rural influence on migration patterns and migrants' behaviour.

The first step is to construct a core-periphery continuum for Papua New Guinea on the basis of opportunity and integration into the world economic system. Figure 1 idealises and subdivides economic space on the basis of people/s 'usual' opportunities for survival, reproduction and improvement. The opportunities and the mix of activities for each individual or household could be derived from the question: 'How did you/your family support yourself/itself over the last week (or month)?'

The construction of an opportunity structure to represent real-world choices owes much to the analysis of the spatial relations of inequality in West Central Nepal (Blaikie, Cameron and Seddon 1977). They analysed the determinants and implications of differential access to resources of the individuals, the households and the region, re-casting the logic of space and centre-periphery relations in terms of power and access. From a study of the evolution of Nepal's internal and external relations of production and exchange, the writers identified the means of survival, reproduction and advancement available to the various functional units. For the present paper on Papua New Guinea the means have been generalised to 'opportunity', among which migration is the central concern.

The categories and structure of opportunity for Papua New Guinea are organised in Figure 1 from number 10, the unincorporated periphery, through to number 1, which is the category most dependent on the international capitalist system, requiring the higher levels of skills and formal education and offering the highest rewards in terms of status, income, security, housing and socio-political power. The diagram represents a cross-section in time, and does not preclude the changes continuously occurring in the opportunity structure.

By concentrating on opportunity, the model avoids the dualism inherent in those of McGee (1971) and Santos (1971), and it allows for modification resulting from integration into or disengagement from the world system. The spatial dimension is taken out of this structure - though categories 1 to 6 occur mostly in urban areas, the present formulation also includes small settlements, farms, plantations and administrative centres. The persistence of ethnic and regional fragmentation in the national labour market (Garnaut 1977) is further support for the reduced importance of distance in conceptualising the process of migration. However, the model can be criticised (following McGee 1979: 5) for being descriptive rather than explanatory, in that the structure

of opportunity is presented but not the internal and external forces which cause expansion, contraction and consequent demographic adjustment to opportunity.

Nevertheless, the descriptive model can be used to 'place' the effects of internal and external changes, on the assumption that people will seek to improve the mixture of supporting activities within their personal, communal, cultural and legal constraints. The following are some of the more obvious real-world events affecting the opportunity structure:

(1) when the net migration rate exceeds the rate of national population growth, then the area 1-6 will expand;

(2) when the net migration rate exceeds the rate of job creation, then categories 2 and 6 will expand relative to 1, and 3 and 4 might expand;

(3) when prices of local and imported foods rise, and if migrant settlers are numerous and relatively powerful (or if land tenure arrangements in peri-urban areas are changed), then 3 will expand;

(4) if rural-urban communal and kin ties are weakened, or if export crop prices fall, then category 5 will contract;

(5) persistence of kin and communal ties will enable the movement from 9, 8, 7 into 1, 2, 3, 4, 6, and within the core, from the less secure to the more secure activities, for particular groups of migrants having an historical, locational or political advantage;

(6) falling real income in 1, 2 and 4 will cause a decrease in remittances, and might cause an increase in category 5;

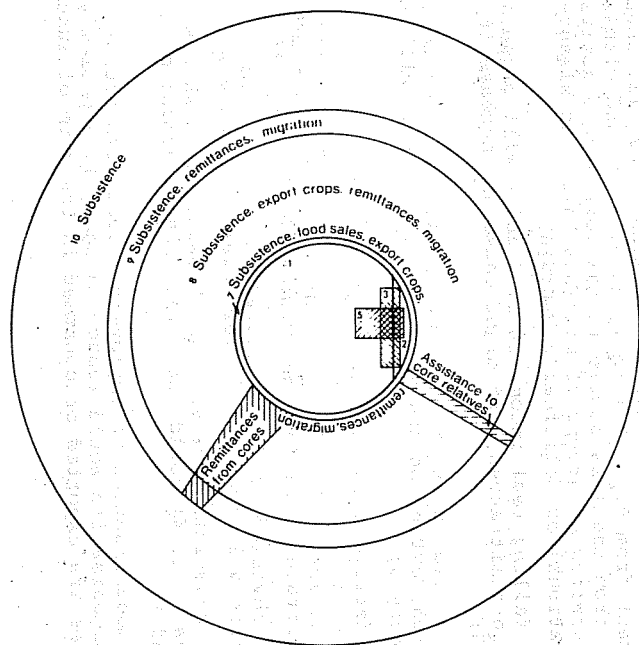
(7) a rise in export crop prices and/or investment in promotion, extension and marketing activities, will expand category 8;

(8) deteriorating living conditions in 1, 2 and 6 might retard the rate of migration from 7, 8 and 9; conversely, increased government spending on urban services might facilitate migration and cause expansion of 1-6;

(9) provision of formal education would enable movement from all other categories towards category 1;

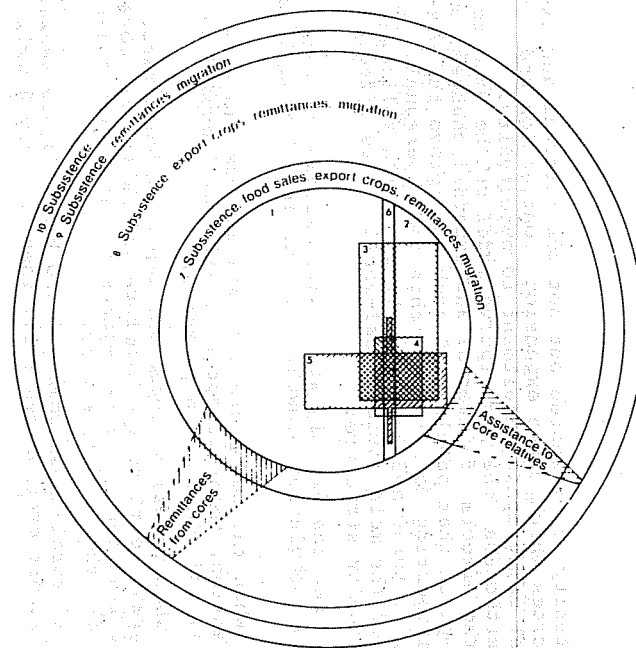
(10) accumulation of savings, knowledge and skills (categories 1, 2, 4) would facilitate some movement back to 7, 8 and 9;

(11) modernisation of employers' productive equipment and organisation would reduce category 1, especially if surpluses are exported or consumed in the form of luxury.



1. regular employment
2. irregular employment
3. access to gardens/fishing for subsistence and/or sales

Fig. 2a: Opportunity Structure,
Papua New Guinea 1955, e.g. Lae



4. informal/illegal activities (negligible in 1955)
5. support from village sources
6. no employment in the relevant time period (negligible in 1955)

Fig. 2b: Opportunity Structure,
Papua New Guinea 1978, e.g. Lae

imported goods;

(12) contraction of opportunity in 1, 7 and 8 along with escalation of rewards to the privileged would widen the gaps in living standards between the secure, the insecure and the marginals, while still sustaining migration into categories 2, 4 and 6 through the lure of urban facilities.

Figure 2 presents an idealised comparison of opportunity structure in Papua New Guinea at two dates, say 1955 and 1978. In 1955 (Figure 2a) there was much less integration into the international system, as shown by the area of categories 1-9. Migration to core opportunities was constrained by distance, difficulty and cost of travel, lack of information and legal, housing and administrative arrangements, so that categories 2, 6, 3, 4 and 5 were miniscule. The accelerated integration of the 1970s (export crops, foreign investment in extractive industries and commerce and services, expansion of government services, partly supported by foreign funds) results in a very different pattern in 1978 (Figure 2b). The unincorporated periphery has contracted; but export crop production has expanded as have core employment, demand for food and remittances. Increased migration has resulted in the expansion of 2, 6, 3, 4 and 5. Given the rapid increase in formal education, popular expectations and the means of travel in the last decade, then the areas of categories 2, 3, 4 and 6 will now be expanding rapidly.

The foregoing comments on real-world events show that the diagram of opportunity at a point in time can be elaborated with forces and flows of information, innovation, capital, prices, land quality and availability, people's aspirations and so on. For purposes of this study, however, the cross-sectional presentation provides a sufficient structure to show how certain migrants from the periphery, starting a stream from categories 9 and 10 in 1955, have persisted and adapted to the opportunity structure (1, 2, 3, 4, 6, 7) up until the present time. The hypotheses to be considered in relation to the foregoing structure are:

(1) that migrants from the periphery will attempt to move in space, status and economic condition towards the core of regular employment and secure opportunity for the duration of their migration;

(2) that their attempts will be conditioned by:

- (a) their preparedness in the competition for employment and other opportunities;
- (b) the accidents of migrant history which account for specific chains, linkages and preferences in destination and employment;

(3) that survival on the margins of the cores after failure to gain regular employment depends on

- (a) the migrants' access to ground for housing and gardening space;
- (b) the 'passenger-carrying capacity' of the established kin-folk (that is, the extent of communal support); and
- (c) the recognition and exploitation of informal-sector opportunities.

The migrants discussed in the following case studies are from two areas in the Lae hinterland, on the margins of category 8 of Figure 1. Their marginal condition is largely a result of partial integration into the world system, meaning that the wants created by degradation of the indigenous system and by new information exceed the means for their attainment at the local level. These areas were chosen to illustrate integration and migration processes because of the long-term nature of their relationship with the cores of power and opportunity and because of my familiarity, from previous research, with the conditions of the people and the village communities.

PARTIAL INTEGRATION AND MIGRATION FROM HEADWATER KUA AREA

Headwater Kua is the least accessible part of Kua census division in the interior of Huon Peninsula. Table 1 provides information on some salient characteristics of the area. The five villages of Headwater Kua, located at around 1500 metres elevation in the shadows of the Saruwaged Ranges (4300 m. peak) and at 5 to 8 hours walk from an airstrip, defy the widespread evidence of migration decreasing with increasing distance and costs of travel. On the contrary, this area has one of the highest and most persistent rates of out-migration in Papua New Guinea (May and Skeldon 1975), brought about by the way in which its people have been brought into the world system.

Table 1:

Population, absenteeism and location of areas within Huon Peninsula

Area	Villages	Registered Population 1975	Resident Population 1975	% Absent from Village 1975	Weighted Average hours' walk to trading centre 1975
Headwater Kua	5	2237	1566	30	5.5
Rest of Kua C/D	13	5113	3937	23	2.1
Bulum C/D	16	4719	3822	19	6.1*
Huon Peninsula (Finschhafen and Kabwum Dis- tricts, exc. Siassi C/D)	297	81190	63748	22	2.0

* reduced to 3.2 in 1976 with the opening of Ogeranam airstrip

Source: Department of Decentralisation (and predecessors), village census; author's surveys 1975, 1977.

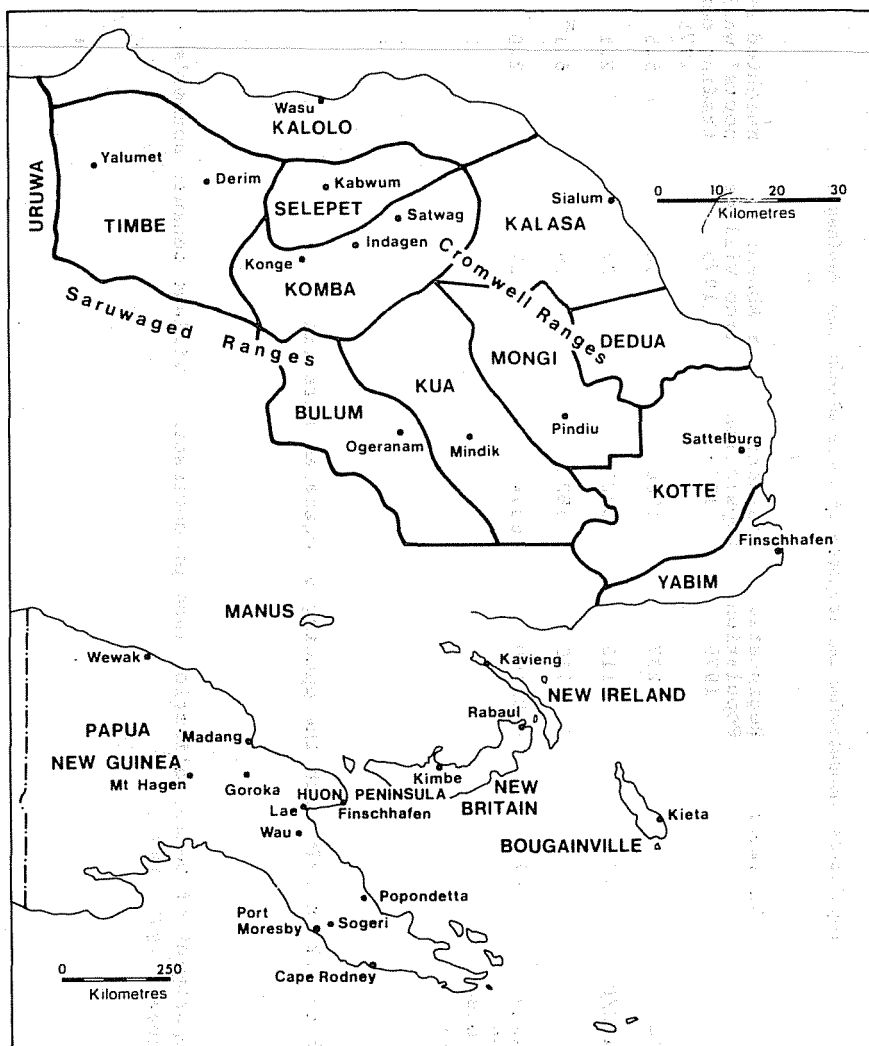


Figure 3: Location of Huon Peninsula, and its census divisions.

The Finschhafen coast (Figure 3) was the first base for German colonial penetration (1884-90), and has remained the headquarters for the Lutheran Mission. Missionaries were organising, teaching and evangelising in the interior from 1902, and they held undisputed hegemony especially in the 1920-35 period. The presence of Australian administrators in this period was negligible. The mission provided the system in which many Finschhafen people moved around the country (especially to the Central Highlands) as evangelists, administrative assistants and labourers. Two languages from the Finschhafen coast were adopted by the Lutherans and used as the first common languages on the northern mainland of New Guinea.

Ironically for the mission's hegemony, the degree of organisation, education and acculturation achieved by the mission made labourers from Finschhafen and its interior desirable to the plantations of the eastern islands and to the goldfields of Wau-Bulolo (Figure 3). So in the period 1932-40 there was widespread recruitment of men, usually on 2-year contracts, for these two destinations. Then the Japanese invasion forced out the recruiters and employers (mostly Australians) and almost all of the labourers made their own way home. They were soon drafted in very large numbers into military service, mainly as carriers, guides and camp labourers for the Australians and Americans around the Huon Peninsula, New Britain and Bougainville. The work of missionaries, mostly Germans, was stopped by the Australian administration (and by the Japanese invasion) in the period 1939-47.

But the contract labour and war-work experiences had thoroughly disturbed the population, whose world-view had been shaped by information from and response to the missionaries. A deep sense of inferiority and impotence was impressed on the people by contact with the material wealth and power of the foreigners. At the same time, the people saw some of the vast opportunity and diversity in other parts and for other people of the world (Wagner 1964). Dissatisfaction with their own condition and opportunity was profound - part of it was expressed in a series of millenarian 'cargo cults' occurring sporadically into the 1970s, and part of it in streams of migration back to the plantations, to the goldfields and to the reconstruction and development of Finschhafen and Lae.

The pre-conditions for migration and the first waves of the stream preceded the promotion of cash cropping and commerce by the administration. Coffee-growing was widely promoted and keenly adopted throughout the Finschhafen upland and interior in the 1954-60 period. Trade stores were opened up by naively optimistic villagers all over the Peninsula, each store lasting just long enough to drain out the funds accumulated from war work and compen-

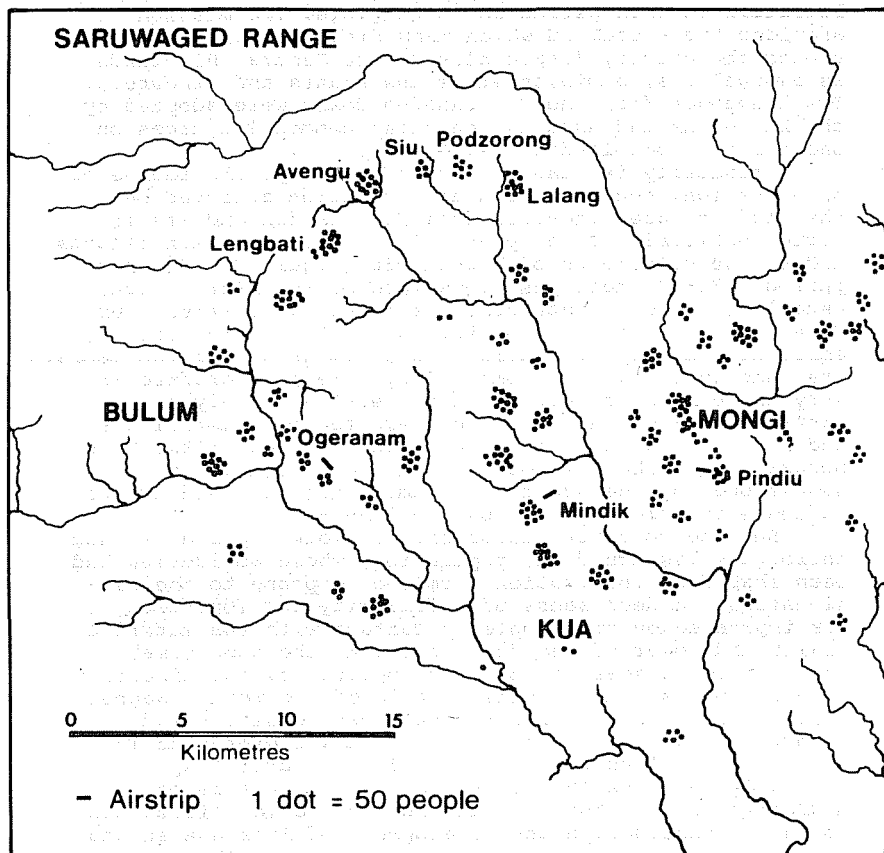


Figure 4: Population of the southern interior of Huon Peninsula.

sation for war damage. The mission and the administration promoted growers' cooperatives and organised significant investment of time and labour in road and truck building.

People from Kua census division adopted coffee enthusiastically in the late 1950s, despite the fact that they were two days walk from a buyer. People in Bulum census division, who had had much less experience of contract labour and war work, were much less interested in coffee. An airstrip was opened at Pindiu in 1961 (6-11 hours walk from Headwater Kua), and at Mindik in 1965 (5-8 hours walk). A local government council was established for the three interior valleys in 1962. Formal primary education became available to a small number of Headwater Kua children in 1968, and similarly to Bulum in 1972.

Adult male absenteeism from Headwater Kua villages was 25% in 1955 and 50% in 1965 - *before* the innovations of commerce, education, government services and transport facilities, and persisting at even higher rates after these innovations. Because of their work experience elsewhere, people from Headwater Kua had seen clearly enough 25 years ago that their place was too inaccessible and inhospitable to provide the opportunity which they desired. The condition of dependence on the cores had been brought about not by actual impoverishment of the periphery by core institutions, but by the raising of people's aspirations through perceptions of inequality and disadvantage. The next section will show how some migrants sought out new opportunities.

MIGRATION STREAMS FROM PARTICULAR VILLAGES

Migration histories for all the men (over 18) registered in the administration's censuses of Avenu and Lalang villages were collected from interviews in the home villages and in the urban settlements. Ninety-five per cent of the men of these two villages have migrated for work at some period. The migration index (years of absence as a proportion of adult years) for all men is 50%, and for the current migrants alone is 76%. Comparative figures for the rest of Kua census division are 41% and 73%. Clearly the two villages are cases of extreme outmigration, despite their remoteness and inaccessibility which might have weakened the attractive signals from the cores. Where did all these people go? The pattern of migration can provide insights into the process of integration of the periphery into the world system.

Table 2: *First moves of men migrating in 1946-59
from Avengu and Lalang villages*

	Finschhafen	Lae	Wau	Popondetta	Central Province	Highlands	East New Britain	Total
Avengu	2	11	6	8	5	7	-	39
Lalang	3	10	4	-	1	6	3	27

Source: Author's surveys with residents, 1975, and with migrants, 1977.

Table 2 shows that there was a variety of attracting centres after the Pacific War. Each had a particular basic function. Migrants at Lae were employed mainly in the war cemetery, Botanical Gardens and building and construction. In the Highlands there was Mission work, and goldmining at Kainantu. At Wau, the migrant-labour went into goldmining and coffee plantations; and at Popondetta, into cocoa plantations. The Central Province connection was established by one influential man who worked his way through the plantations of Wau coffee, Garaina tea and Kokoda rubber to the Sogeri rubber plantation of Subitana.

Table 3: *First moves of men migrating in 1960-75
from Avengu and Lalang villages*

	Finschhafen	Lae	Wau	Popondetta	Central Province	Highlands	Bougainville	Sepik	Total
Avengu	12	13	5	2	37	3	2	-	74
Lalang	18	25	13	-	4	8	-	1	69

Source: Author's surveys of residents, 1975, and of migrants, 1977.

Comparing first moves of Avengu men in the two periods, the most important changes are:

- (1) the increase in short moves within Finschhafen, mainly because of the availability of schools and Mission work; and
- (2) the decline in the importance of Wau and Popondetta, and increase in the importance of Central Province (mainly Subitana and Cape Rodney, both of which now provided work in

saw-milling).

The main change for Lalang migrants has been a shift to Finschhafen and Wau, with a lesser proportion making first moves to the Highlands. By 1960 the Kainantu gold-fields had finished, and the Mission work required fewer outside evangelists and support staff.

For the other Headwater Kua villages, Wau was the most important destination for Lengbati men in both periods, and Lae was the predominant destination for men from Podzorong and Siu in both periods.

The most important feature of Table 4 is that circulation has been more sustained by Lalang men than by Avengu men. The Lalang men have moved more in the Finschhafen-Lae-Highlands axis, whereas the Avengu men have moved to the Central Province.

A second feature is that Lalang men have been more mobile in their migration. Eighty-five Lalang men have been involved in a total of 205 moves since 1960 (69 first moves and 136 subsequent moves); whereas 93 Avengu men have been involved in 141 moves (74 initial and 67 subsequent moves). The main reason for the difference is that Lalang men do not have one predominant destination in which the men have become 'fixed'.

Lengbati migration is more like that of Avengu (slow circulation, but fixed on Wau), and so is that of Siu, though fixed on Lae. Podzorong migration is similar to that of Lalang.

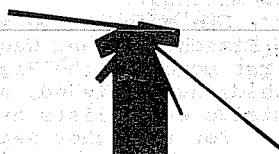
The five other Kua villages in Table 5 show a destination pattern that holds generally for the villages of Finschhafen District (Townsend 1977a), and which generally reflects a trade-off between opportunity at the destinations and the distance-costs to the destinations.

The general conclusion from this section on Headwater Kua migrants is that there was a strong desire for migration and that men from different villages used the specific contact systems established by the earliest migrants. Avengu men came to exploit the fortunate circumstances of the first migrant settling on ground at Subitana under an arrangement with the traditional land-owners. Lengbati men secured control of a goldmining lease at Wau, bought from the government in 1957 and paid for by a collection amongst all migrants and some residents of the Finschhafen interior. After an earlier search in various destinations, the streams from Lalang, Podzorong and Siu became fixed on the nearest opportunity at Lae.

The analysis of the detailed migration histories shows an increasing differentiation between the various cores. Lae and Port Moresby (included in Papua in Table 5) emerge as dominant, and Kainantu, Popondetta and Wau fade in importance. These changes reflect the declining

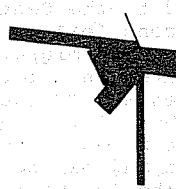
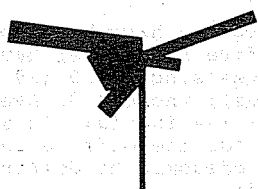
Avengu first moves 1946-59

Avengu first moves 1960-75



Lalang first moves 1946-59

Lalang first moves 1960-75



All moves except first moves 1960-75

Avengu

Lalang

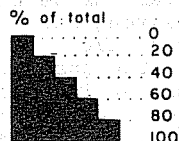
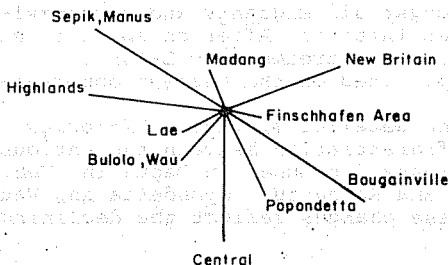
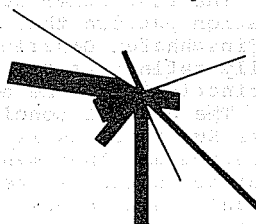
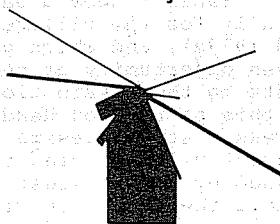


Figure 5: Migration from Avengu and Lalang villages, according to destination, period in time and kind of move.

Table 4: All moves except first moves during 1960-75, for men from Avengu and Lalang villages

	Home	Finschhafen	Lae	Wau	Popondetta	Central Province	High-lands	East New Britain	Bougainville	Madang	Sepik	Total
Avengu	10	1	11	3	1	35	2	1	2	-	1	67
Lalang	25	18	26	15	1	12	25	2	6	5	1	136

Source: Author's surveys of residents, 1975, and of migrants, 1977.

Table 5: Residence of current migrant men, 1977, % of total migrant men

	Avengu	Lalang	Lengbati	Podzorong	Siu	All Head-water Kua	Five other Kua villages*
In district	1	11	1	-	-	3	6
Lae	30	30	15	43	68	34	35
Wau-Bulolo	4	24	38	18	-	17	10
Papua	59	11	32	18	16	30	18
High-lands	3	13	10	13	-	8	11
ENB/WNB	1	1	-	3	-	1	11
Madang	-	4	-	-	4	1	3
Manus, Sepik	1	3	2	2	5	3	1
New Ireland and Bougainville	1	3	2	3	7	3	5

* surveyed in 1975 Source: Author's surveys of migrants, 1977.

importance of plantation work and the increasing concentration of employment, business opportunities, administration, social facilities and distinctive kin-based urban settlements, especially in Lae. This concentration proceeded much faster than the spread of innovations and satisfying employment to the periphery. The dependency of the periphery was achieved with very little provision of the formal education which would have assisted the migrants in their competition for core positions of employment and status. The early advantage of migrants from the area, in terms of organisation and vernacular literacy, was overtaken by new demands of employers, in terms of secular education, English language and specific skills.

EMIGRATION FROM THE PERIPHERY, AND POPULATION GROWTH

In conditions of population pressure on land, the core may improve the welfare of the periphery by absorbing some of its population, especially the younger population of higher potential fertility. Or it may improve economic welfare by attracting out the more competitive individuals who then leave the residents more space and (female) labour to exploit the innovation of cash cropping. But neither of these effects was at all needed in Headwater Kua, and two of the obvious results of emigration of the younger and more able men have been a low degree of exploitation of the coffee trees (Townsend 1977b) and a slow rate of population growth.

Table 6: *Growth of Registered Population by census division, related to some characteristics of migration*

	Yabim	Kotte	Mongi	Headwater Kua	Other Kua	Bulum
% increase 1975-6 over 1951-2	116.5	91.0	90.0	51.5	70.5	61.4
Masculinity ratio of adult residents 1975-6 (over 18)	89	85	65	48	71	73
% men over 25 never migrated	12	7	11	4	12	27
% current migrant men married	43	46	46	39	41	42

Table 6: continued....

	Yabim	Kotte	Mongi	Headwater Kua	Other Kua	Bulum
% of married migrants hav- ing wives with them	71	83	91	91	74	67
% of men migrants visiting home in 1974	55	44	31	17	26	24

Source: Village censuses, Department of Provincial Affairs;
author's surveys, 1975, 1977.

The social disruption of early and sustained migration from Headwater Kua is revealed in the first row of Table 6. Allowing for the fact that some children born to long-absent migrants have not been included, and allowing for the fact that life is harder and medical facilities are poorer and less accessible for Headwater Kua people, it is clear that population growth has been significantly slower than in neighbouring areas.

Compared with other census divisions, more of the Headwater Kua men have been involved in migration; and a lesser proportion of the migrants are married; the migrants tend to visit home less frequently than do migrants from the other areas; and the male:female ratio of the residents is the most unbalanced. There is a stronger tendency for wives of Headwater Kua migrants to go with or follow on after their husbands - another indicator of the abandonment of the periphery and a commitment of life around the cores. By contrast, Yabim is well integrated into the national and international system - the centre of the region's services is there, and so are good transport links to Lae, more schools, and a range of opportunity including cocoa, coconuts, cattle, coffee, fishing, food-crops and short-term casual stevedoring work on Lae wharves.

OPPORTUNITY, RESIDENCE AND SOCIETY AT THE CORES: BULUM MIGRANTS AT BUMBU SETTLEMENTS, LAE

The next three sections briefly describe the kinds of integration and adaptations attempted by three different streams of migrants. Bumbu, sometimes known as Buko, is just outside the eastern boundary of Lae city, on ground owned by the Butibam people. In response to the expansion of Lae city

and to the migrant settlement's growth to at least four thousand, the Butibam people have organised a strong pressure group which has won significant gains from the local and national governments (Jackson 1977: 40).

Bulum census division is the most remote and inaccessible area of Finschhafen District, and introduced activities and institutions have only been weakly promoted there. There is no village or part of Bulum where migration experience has been concentrated, so the census division is treated generally and without the kind of detailed village studies given in the Headwater Kua case.

Bulum people are the least prepared for urban migration. With 2185 children under 18 years, Bulum has only two primary schools, one started in 1972 and the other in 1975. Only two of its 4719 people have reached tertiary education. Compared with the other census divisions, a larger proportion of Bulum migrants went on the dis-appointing contract work in New Britain plantations, and very few were recruited for work in the goldfields and the war. Bulum men have had the lowest participation in migration (Table 6), the shortest period of life spent away from the village, the lowest proportion of married migrants accompanied by wives, and the lowest degree of mobility of residents. The take-off in Bulum migration came later than elsewhere - 26% of men absent in 1960 compared with the 50% of Headwater Kua. As a result of this general lack of preparation for current migration, Bulum has the highest concentration of migrants in Lae (nearest opportunity) and in New Britain (contract migration).

The Bulum rate of adoption of coffee growing was less than neighbouring areas, due to the lesser intensity of promotion work, the obviously longer distances for marketing and the lower estimation of the utility of money (because of less external contact). The people's interest in Council activities is low and is reflected in their high rate of tax evasion. On the other hand, Bulum people have been the most enthusiastic and constant supporters of magico-religious solutions to their problems of relative poverty and exclusion - a tendency which can be interpreted in Friedmann's terms of the powerless periphery insisting on greater autonomy with respect to core innovations.⁵

The Bulum people are truly on the margins of the cash economy. In 1974 only 55% of resident men actually sold coffee (compared with 70-85% in the other areas) and the average income was only K10. per seller. Since the opening of Ogeranam airstrip and the rise in coffee prices during 1976, participation and income have risen, but those of

the more accessible census divisions have risen even further. The only advantage that Bulum has in its relationship with the cores is that people from its southern section can walk to or from Lae in one and a half to two days, and save themselves the delays and costs of the air service at Ogeranam.

The Bulum migrants are concentrated in the squatter settlement at Bumbu. Approximately 120 of the 190 migrant men in Lae are resident there, on ground rented at K2 per man per month from the Butibam people. I interviewed 35 of the Bulum men there, and since there was no apparent differentiation in the settlement with regard to village of origin, kinds of employment or status of migrants, the respondents were chosen randomly.

Of this sample, 70% were married and 80% of these were accompanied by wives. The proportions are much higher than for all Bulum migrants, since the single and unaccompanied married men are concentrated in New Britain and the Highlands. A clear indication of the attempt to abandon the periphery is in the family formation at Bumbu⁶ - 68% of the children of these migrants were under six years of age (see Table 7). Conditions in this margin of the core are apparently not deteriorating as rapidly as the chances of achieving a desirable life on the margins of the periphery, for the migrant stream from Bulum continues to rise quite sharply. In 1960, 26% of men and 4% of women were absent from the villages; in 1975 the proportions were 38% and 15% respectively.

The children of migrants have a better chance (90% of this sample are enrolled) of formal education than the children resident in the rural villages (10%). The migrant men had far less chance of formal education - only two of them had any experience of primary school.

The relative novelty and insecurity of life of Bulum men on the margin of the cores are shown (Table 7) in the lower proportion of men having their own house, the higher occupancy rate per house and the higher proportion of men employed in the current job for two years or less. Their conditions appear more stable than those of Boundary Road settlers - but the latter is a more recent settlement with less pressure of dispute with traditional landowners.

The Urban Household Survey (Garnaut 1975) found that about 23% of males aged 15-44 years and living in Lae migrant settlements were without formal employment. The Boundary Road Survey found that 18% of all adult males were unemployed (Jackson and Allen 1974). Amongst the smaller sample of Bulum migrants in Bumbu in 1977, the figure was only 12%, partly because of the settlers' attempts to appease the Butibam landowners by concealing or sending away some of their 'urban passengers'.

Table 7: Comparison of Migrant Settlements

	Bumbu 1977	Buaru 1977	Subitana 1977	Boundary Road 1974 ³	All Settlements 1973-74
Men over 18 years in the sample	35	48	24	613	312
% married	70	62	60	60 ¹	
% with wife here	80	86	88		
% of migrants' children under 6 years	68	45	70	65 ¹	
% of children staying with migrant parents	65	77	82		
% of children 6-16 years at school	90	74	40	61	
men, % resident for 2 yrs or less	20	12	17		35 ²
men, years of adult life as migrant, %	62	82	88		
% of men with own house	60	75	70	46 ¹	
average occupancy per house	6	4.9	5.2	5.6	!
% men without formal employment	12	10	80	18	23
% of men in current job for 2 yrs or less	40	20		56	
% visiting home in the last year	60	65	12	30	(in preceding 3 months only)

¹ estimate from reported figures

² all Lae migrants, not only the settlements

³ a relatively new settlement with a large proportion of recent arrivals from the Highlands

! range 4.6 in Madang to 7.1 in Port Moresby

Sources: 1977 data from author's surveys; Boundary Road data from Jackson and Allen, and Jackson 1977; Lae 1973-74 data from Garnaut 1975.

The Bulums' attempt to secure a hold in the core is thwarted by their relative lateness in migration, and their lack of formal education, of long-established contacts to provide information about jobs and of sufficient accumulated income from cash-crops to sustain a long period of search. They are concentrated in the relatively unstable building and construction jobs, and this is reflected in the fact that 40% of the men had been in their current job for two years or less. Perhaps because of their limited urban experience and contacts, income from informal activities was negligible.

All of the Bulum men reported that the main reason for staying in Lae was the fact or chance of high wages from regular employment; a few others added that they were staying on to exploit the opportunity of schooling for their children. The most frequent complaints were about the crowded and unhealthy living conditions, and the lack of gardens to occupy the women and to reduce the amount of money spent on food from markets and stores. Aware of their weak position in the core, all of the men have been contributing to an association to improve the condition of the periphery - in equipment for the two primary schools and a medical aid post, and in funds for a local coffee buyer and stocks in a trade store at Ogeranam - but there was little optimism that these improvements would significantly alter rural opportunity.

The answers regarding the intention of returning to Bulum were of course very vague. The most common answer was that 'I intend to go back when I have collected enough money' - a vague target which, judging from interviews in the rural villages, is rarely achieved. The vast majority said that they would search for two or three months for new employment if they lost the current job. The despairing comment of 'what is there to go back to?' closed most of the discussions on the subject of intentions.

The Bulums are a group from the margins of the coffee economy and the introduced administration and Mission systems (8 and 9 in Figure 1) who have come later to the migration stream, with less preparation and very limited contact networks. They occupy categories 1, 2 and 6 of Figure 1, with very few in 3, 4 and 5. Despite their insecurity of land tenure and type of employment, the migrant stream seems to be accelerating. The potential of the streams may have been released by the higher coffee prices, the air services at Ogeranam, and the failure of the latest large-scale 'cargo cult' activity. That failure could indicate a realisation of the degree of their dependent and powerless position, and could have encouraged some people to move from the apparently hopeless rural margin to the vague possibilities of the urban margin. For those

whose age and family obligations preclude urban migration, the 1976-77 exercise in self-reliant development has provided a sense of participation and progress (Adams 1978).

HEADWATER KUA MIGRANTS AT BUARU, LAE

There are about 370 men over 18 years currently absent from Headwater Kua, and about 125 of these are in Lae. The Buaru compound, three kilometres north-west of Bumbu, outside the city boundary and still on Butibam ground, houses about 90 Headwater Kua men. A sample of 48 men, selected according to the village of origin's share in the Buaru population, was used in the survey in April 1977.

The Buaru conditions are summarised in Table 7. The figures on children, years of migration, residence, housing and employment show that the Buaru men are more established and less marginal with respect to the core than the Bulum men. The main reason for their stability is that the Headwater Kua men have for a longer period supplied most of the labour to the war cemetery, the Botanical Gardens, and the gardens of the airport and the University; they also have a wider and stronger network of contacts inside and outside their kin group, and some have developed land for gardens a few kilometres north of Buaru.

The average period of adulthood spent as a migrant is 16.0 years for Buaru men, and of that an average of 13.7 years (86%) has been spent in Lae. The average period in the current employment is 8 years - 20% of the men have been in the current job for 15 or more years and only 20% for two years or less. Because the garden work is relatively easy - the connection is well-established and the men enjoy the company of their own kind - and because the migrants have had virtually no formal education, there has been almost no progression from this to other kinds of employment. Some savings have been invested in the formal sector and a few men have trade stores in the settlement. Three families earn some income from informal sector services within the squatter settlements.

In terms of residence, many of the men are marginal out of preference rather than of necessity. They have had chances over the years to buy inexpensive blocks on Government land (which a few have done) but the majority have preferred to stay in the squatter settlement. Part of the reason is in the satisfaction of a close kin network established since 1963 in Buaru, and part is simply proximity of the work place. The main complaint of the settlers is about the long-term intentions of the Butibam people, and the lack of space nearby for food gardens; but the regularity of employment, the relatively good wages (average K27 per week) and the habits of urban consumption patterns in fact reduce the real effect of the

land deficiency.

Unemployment in the Buaru sample was only 10%. A survey of all the Avenu men in Lae showed a rate of 30%. Most of the unemployed from Headwater Kua stay with relatives at the housing provided by the University, where the social and political environment is more amenable to the support of 'passengers' than it is in the settlement on Butibum ground.

With this long term stability in employment, there was little desire among Buaru men to return home. Almost all of the men contributed to an association collecting money for some kind of business to be established with the Lengbati airstrip, due to be completed in 1978. But the intentions about moving or staying are confused by a number of currents:

- many of the men have been absent for a very long time, and feel the urge to retire to the home place, but they have become accustomed to the regular employment and easy work;
- there is confusion about the expected effects of the Lengbati airstrip on their marginal coffee economy;
- there are uneasy feelings in their relationship with the Butibum landowners;
- many of the men see that the younger relatives will not be able to gain such regular employment and will not be able to give the same support to the kin group in Lae and at home.

The comparison of the two Lae settlements shows the advantage of the Headwater Kua men in having come earlier to the cores and in having established a line of stable employment. Both groups of migrants suffer from the insecurity of land tenure, though the issue is more explosive for the Bulums in the larger and more crowded Bumbu settlements. Both groups recognise their insecurity, and their reactions are in closer self-policing in Lae and in attempts to transfer some improvement to the home areas. Political and social organisation is only just emerging in the settlements, perhaps now because of the conflicting pressures from the Butibum landowners and the incoming dependent relatives.

The Headwater Kua men have a less marginal position than the Bulum men - with reference to Figure 1, they have greater proportions in categories 1 and 3. The difference is in the timing of their migration and their capture of some steady employment opportunities. Their advantage was gained through the good fortune of one man who was employed in gathering from the battlegrounds the essential ingredients of the war cemetery, and who has stayed in Lae since 1946. The Lae employment core has in fact grown around the men who exploited the initial linkage. The men are marginalised in the sense that

the urban village they preferred to create in 1963 is being overwhelmed by the innovations of a core that has rapidly expanded since that time. The migrants have chosen to conserve their community and its relations with the core, rather than opting for other opportunities, further integration and upward mobility which would have fractured their urban community.

The social and political pressures on squatters in Lae are intensifying, especially as more migrants from other provinces move in. The traditional landowners and some of the more urbanised core residents see a threat to their legal, economic and social interests (Adams 1975: 3). The Pangu Party which is the major party in the national coalition and the trade union organisation have provided some kinds of protection to the squatters, but this will probably change as provincial government evolves and as trade unionists react to increasing unemployment.

HEADWATER KUA MIGRANTS AT SUBITANA, SOGERI, CENTRAL PROVINCE

The link between Headwater Kua and Subitana has grown from one adventurous man's progress through plantation and saw-milling employment and his arrangement to occupy ground belonging to the Kailakinamu group of the Koiari people. There are now 39 men in a total of 110 people at the settlement. Another 35 people from Wain and Kabwum districts of Morobe have recently moved in, a movement that has created some dissension within the settlement. The Headwater Kua men are part-owners and employees of two small saw-milling operations in Sogeri.

A second link between Headwater Kua and Central Province was established by the transfer of garden maintenance staff from Lae to the University site and from there to the airport gardens, in Port Moresby. There are now about 30 men from Headwater Kua living in Port Moresby.

A third but weaker link was set up by the recruitment of some migrants already working in Lae and Popondetta to the forests and saw-mill operations at Cape Rodney, 200 kilometres south-east of Port Moresby. There are now about ten men there. Neither the Cape Rodney or Port Moresby bridgeheads could have supported the stream that has evolved around Subitana - the latter has some local employment and good quality land for subsistence and food sales to Port Moresby markets.

The three links have merged as more people have come to recreate village society at Subitana, and some of the town employees regard this as the 'home place'. But perhaps the strength of the ultimate attachment is shown by

the fact that 30 people went from Subitana back to the Headwater Kua on the eve of Independence in 1975 in anticipation of a flow of 'cargo' from out of their home ground.

The Subitana settlement has grown on the margins of the Port Moresby core (category 7 of Figure 1) because of the availability of ground for subsistence and commercial gardening, the involvement in saw-milling, the access to possible core employment and the close contact with relatives in core employment. The settlement is a significant supplier of food to the relatives living in Port Moresby. But this marginal position is growing more tenuous.

There has been considerable friction between the Koiari landowners and the settlers around Sogerri. Though the Koiari appear to have abundant good land, they have already lost much of their ground to plantations, timber leases, the Sirinumu Dam and extensive cattle projects.⁷ The Koiari have not been cohesive or well-organised in their dealings with squatters, many of whom are Highlanders and disaffected deserters from rubber plantation contracts.

In the various deals with hopeful settlers over the last 15 years, the Koiari could probably not see the long-term pressures arising from chain migration. Now, population growth and perception of opportunities in the Port Moresby meat and vegetable markets have increased the Koiari's concern about land, so that economic, political, legal and less subtle pressures have been applied against the migrants. In 1975, the Headwater Kua people raised another large rent payment, and purged some of the 'passengers' from Subitana in order to placate the Koiari landowners. In 1977, however, the Koiari made a determined effort to deny all rights to the settlers and to evict them: the matter was resolved, perhaps only temporarily, by a court decision that the original verbal agreements and the payments of rent over the last 14 years had in fact established some rights of tenure (but not ownership) for the settlers.

The conditions of the Headwater Kua men to Subitana are summarised in Table 7. The interesting point is that there has been a relative delay in family formation, due mainly to the insecurity of job and land tenure and to the lack of home visits during which marriages could be arranged. Another dimension of insecurity (and the Koiari's blocking tactics) is in the fact that only 40% of school-age children have a place in school - higher than the home residents, but much lower than the migrants at Lae.

For the older men, Subitana was the end of a migration chain; but for many of the younger men it is the first hopeful link, and they are meeting more resistance

from their established relatives and from the Koiari landowners. The younger men are rather reluctant to participate in market gardening, since their aspirations are towards more regular participation in core activities.

Formal unemployment is high - only 20% of the men have regular work with the saw-mills around Sogeri. The others raise income from selling food, mainly sweet potato, at Koki market in Port Moresby. Some families are partly supported by town-employed relatives, and almost everyone in the settlement looks forward to the returns from their lease on a service station in Port Moresby. The lease provides employment and a sense of integration into the core of capitalist opportunity.

This penetration to a vital function of the core has tremendous psychological and economic significance for the migrants. A similar venture in Lae was undertaken in 1971 by another group from the Finschhafen District. Such activities raise the prestige and enthusiasm of the rural residents, and lowers their resistance to migration, which in turn facilitates the draining-off of rural capital to the cores by the next hopeful entrepreneur.

Food marketing by the Morobe settlers at Subitana is desultory rather than consistent, despite the high demand and good returns available (approximately K30 per market visit). The external support systems tend to limit the motivation for commercial food production, but it is mainly a wariness of the Koiari reaction which tends to inhibit the enlargement of gardens and display of market participation. Further, these 'external support systems' are not all net gain, since the Port Moresby workers visit Subitana regularly and subtract from the marketable surplus. The income from food sales is roughly K20 per family per month, averaged over the whole year.

Two families have recently moved to Brown River, about 30 kilometres north of Port Moresby, on to blocks provided by the government with the aim of increasing the food supply to the town. The Subitana settlers vaguely hope for a similar scheme to be implemented on the Sogeri Plateau. It would seem sensible and necessary for the government to exploit this complementarity demonstrated by categories 3 and 7 in Figure 1. The settlers with secure land tenure are more likely than the traditional landowners to increase the urban food supply, since the latter, from the earliest period of contact, have been more involved with and supported by core activities.

A prolonged contest for leadership of the Subitana settlement has taken place between the earliest settlers, with closer relationships with the Koiari and local employ-

ment, and the younger men who feel the Koiari hostility more keenly. Partly as a result of this feeling, and partly as a result of their aspirations for inclusion in the core, the younger men are more committed to establishing businesses in Port Moresby. Taking up McGee's exposition of 'dissolution' and 'conservation' of social formations (McGee 1979), the 'conservation' is expressed by the older people in Subitana (and by the Buaru settlers in Lae), whereas the younger people will opt for dissolution because of higher aspirations, population growth in the settlements and necessity of long-term tenure.

From interviews in the home area, it is clear that the potential migrants have a naive and optimistic impression of the conditions and opportunities at Subitana. There is a continuing and increasing tension in the minds of the older settlers at Subitana - just as there is at Buaru - who must placate the intensifying demands of the landowners and deflect the expectations of and obligations to the younger migrants and potential migrants. The latter quite rationally see life on the margins of the core as superior to life on the margins of the coffee economy, and expect their kin-folk to assist in the transfer and period of integration.

SUMMARY OF CASE STUDIES

The three surveys show three different results of attempts to escape from the margins of the coffee economy to the inclusion in core activities. Historical accident explains many of the differences in destination, period of absence, migrant population structure and kind of opportunity available and exploited.

The peculiarities of the Bulums' settlement derive mainly from their later contact with innovations in the Finschhafen area and in Lae. They have little to go back to in the home area, and are struggling on the margins of the core, in matters of tenure, employment and social order. Their incipient internal organisations are an attempt to secure a legal and social position.

The Headwater Kua migrants have been relatively fortunate in their early start towards the cores, due mainly to recruitment in the goldfields and war work. The accidents of securing the garden-maintenance work, the Wau goldmining lease and ground for a viable settlement at Subitana, have resulted in three clearly defined chains of migration.

The Headwater Kua case supports the assertion of Trlin (Pryor 1975: 91) that the behaviour of individuals or mavericks is extremely significant in migration patterns. But it does not exclude the influence of deeper or more general forces. The accidents are the fortuitous channels

through which part of the dominance of the core over periphery has been realised and through which partial integration is expressed. Quite clearly, the interests of national and international integration are being served by urbanisation and growth in service activities (related to government spending and foreign investment) rather than in general improvement of opportunity in the margins of the periphery.

The underlying force in migration is the desire of the people on the margins of the introduced systems (Mission, administration services, schools, cash cropping) for inclusion in the economic, social and political opportunities that emanate from but which are also concentrated in the cores, particularly at Lae. The increasing stream of wives, family formation in the settlements and higher rates of school enrolment are attempts at social inclusion. The economic motivation is shown in the keen search for regular employment, investment in core activities and collection of money for business associations in the home area. Emerging leadership, cohesion and self-policing in the settlements are evidence of the attempts at political inclusion.

What most imperils the migrants' attempts at inclusion is the insecurity of land tenure, the rising cost of living in towns and the increasing job competition in which kin-contacts are no longer the best guarantee of advantage. Rising unemployment and rising school enrolments are causing discrimination in the job market according to attainment in formal education (Central Planning Office 1976: 19) in which the Kua and Bulum people are extremely disadvantaged.

The migrants clearly perceive their predicament. In the past they have reacted wisely by holding firmly on to their jobs, exploiting their kin-contact systems, keeping a 'low profile' in the settlements and investing in town businesses. If the older migrants cannot transfer their jobs and their *de facto* rights established with the landowners to their younger relatives, and if the core businesses do not succeed, then the support systems which have so far facilitated a strong stream of migration will disintegrate rather rapidly. Failure in the competition for core positions will again carry the Kua and Bulum migrants towards the margins of economic, social and political life. In terms of Figure 1, they are tending towards an increase in category 6, and their best solution seems to be in expansion of informal sector activities (category 4).

The adaptations by the respective migrant groups have some interesting spatial arrangements. The Bumbu settlers put themselves close to core employment, but outside the city regulations; they pay in terms of insecurity, lack of services and lack of access to garden land. Similarly for

Buaru settlers, except that some of them have recently developed gardens in 'vacant' land six kilometres from their homes. Subitana migrants exploited local opportunity; later migrants have paid in the form of rent and difficulties with the traditional landowners for the opportunity of communal living, good subsistence, access to food markets, proximity to urban employed relatives and the ability to join in the job search in Port Moresby frequently and quite cheaply. These arrangements reflect judgments and constraints far more complex than those of the Todaro model or the Santos structure.

CONCLUSION

The simple dichotomy of core-periphery relationships and conditions is denied by the three different cases described above. One group of migrants has a position in the inner category of opportunity (1 on Figure 1), another fluctuates between categories 1 and 2 and a third holds precariously to opportunity in 1, 3 and 7. The inner core is becoming more identified with skilled and white-collar employment. The most significant centripetal force of formal education does not assist these migrants, and the sustaining force of kin-contacts for formal employment is weakening.

Hypothesis 1 (see section 2) is not completely supported by the experience of migrants from Headwater Kua and Bulum. Some migrants deliberately choose a lesser alternative than 'regular employment and secure opportunity' (Lengbati goldminers around Wau, Buaru people, food producers at Subitana) in order to safeguard some other aspect of their core position, their rural community or their rural-urban linkages. Such evidence supports hypothesis 2a - Bulum people in the past streams, and current migrants in competition for core employment, show deficiencies in formal education, general and specific information, and organisation for informal activities. Hypothesis 2b asserted the importance of accidents and linkages in migration and this is supported by the experience of Buaru migrants in the positive sense and Bumbu migrants in the negative sense; by Lengbati goldminers, and by the adventurer and his successors who established the Subitana connection. Hypothesis 3a, concerning the availability of land to support those who do not have core employment, is borne out by the evidence of all three streams - Bumbu's lack of ground, Buaru migrants' search for gardens, rent payments to Butibam people, and Subitana migrants' relationship with the landowners and the Port Moresby food market. The ability of migrants to expand communal support to less 'successful' migrants (hypothesis 3b) is ecologically unlimited

but politically restricted in Subitana, and both ecologically and politically constrained in Bumbu and Buaru. The development of informal sector activities (hypothesis 3c) has helped only in the case of Subitana, though it seems to offer the best chance for survival in Bumbu and Buaru for the later migrants and for the town-born generation.

There are significant ecological and political constraints on the opportunity structure as presented in Figure 1, especially in Port Moresby. The poor quality land and the long dry season in and around Port Moresby militate against expansion of gardening (category 3). Lae has the potential, but the Butibam people are resisting expansion or intensification of gardening. The relative dispersion of settlement in Port Moresby, the existence of substantial traditional villages now enveloped by the city, and the availability of ground 'broken' by hills, valleys and sea intrusions allow plenty of sites and space for informal housing, for those in category 1 as well as those in categories 6 and 2. But the dispersion of settlement (plus the dominance of mostly foreign firms in retailing and services and the cultural and legal norms left over from the colonial period) works against the development of informal sector opportunity. Improved transport links to the hinterland of Lae and Port Moresby are gradually increasing opportunity in food supply (category 7), as well as facilitating remittances in one direction and village support for urban relatives in the other direction.

The opportunity structure in the whole system has evolved with the dependency on the international capitalist system, expressed through mainly Australian capital and a cooperative bureaucracy concentrated in the main urban centres. Core opportunity consists mainly of employment in extractive industries, some processing exports and imports, administration of internal and international transactions and services and distribution of imported goods and services. Some locally-owned capital has gone mainly into commerce, transport, property and services, especially in the towns. Rural opportunity consists mainly of production of export crops for notoriously unstable markets, to be processed and marketed by surplus-appropriating urban institutions often dominated by foreign capital. Infrastructure and services, both public and private sector, have been developed much more in the towns than in rural areas. Urban workers have been given clear advantages and security in housing subsidies, union organisation, wage indexation, job tenure, political influence and currency revaluation (Garnaut 1977: 190-1).

Recent evidence suggests that urban-rural and inter-regional inequalities are persisting, and perhaps are being widened by national government policies (Berry and

Jackson 1978; Hinchliffe 1978). Furthermore, government and foreign investment in rural activity is increasing extraction of resources and the gross national product but is in fact narrowing and concentrating opportunity in production of rice, cattle, sugar, oil-palm, marine products and forest products. Foreign investment in Papua New Guinea is primarily concerned with obtaining resources for the centres of the international system, not in developing an industrial labour force or a rapidly expanded consumer-market.

In these circumstances, rural-urban migration will continue, especially amongst graduates from primary and secondary schools and, as Jackson has shown, most of that stream will be accommodated in informal settlements (Jackson 1977: 25, 42). Relatively good prices for cocoa and coffee in recent years, and the stagnation in private-sector urban employment, have helped to retard the migration streams. Though there has been some deceleration in adult male migration (Garnaut 1977: 188, 192) and a closure of opportunities for short-term circular migration, the streams of wives and dependent children are persisting. In the urban context, these streams are most noticeable in the squatter settlements and in the suburbs formerly dominated by expatriate residents, where sharing increases security and pays the rent.

Quite obviously, these trends should lead to a sudden expansion in the informal sector (categories 3 and 4 of Figure 1) especially in Port Moresby and Lae. Class-consciousness, in some cases reinforced by common ethnic or regional origins, may gradually emerge as a product of unequal and partial integration into the capitalist system. Attempts by traditional landowners and enveloped traditional villagers to conserve their economic and social formations will inhibit development in the informal sector (categories 2, 3, 4, 6). The interests of national and international capital would be served by the forces of authority supporting the settlers against the landowners; however, the new administrative and political arrangements under provincial governments will almost certainly shift support to the traditional landowners against the migrant settlers.

Such considerations derived from an understanding of the evolution of inequality, migrant streams and adjustment to opportunity in various contexts demonstrate the importance of getting away from mechanistic models of differentials and employment probabilities and of flows between abstracted circuits. Abstraction of the opportunity structure provides an elementary framework in which to locate forces and responses in the integration of people into the national and international system of production and exchange.

NOTES

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1. Stuckey criticised Friedmann's paradigm for the study of urbanisation because it was directed at the spatial incidence of growth and development within a single country, while the forces of change (particularly in the labour market) originate and circulate outside the national system (Stuckey 1975). Friedmann has since moved to a 'global view' of the development problem (Friedmann 1979). Stuckey's objection can be met by discarding the spatial dimensions of core and periphery, as shown in this paper.
2. The move to political devolution and provincial governments in Papua New Guinea is not a response to mass-dissatisfaction. It results from the actions of a small elite in two or three provinces which are relatively far-advanced in the process of integration into the world system. Their actions have forced the devolution of powers on to some provincial centres which are unprepared and which had not insisted on greater autonomy with respect to the national government. So partial integration rather than marginalisation contributed to the demands for autonomy.
3. The 'pasar economy' in Papua New Guinea is insignificant, in comparison with its size and function in South East Asia. The system of controlled labour migration and regulations on settlements and trading under the Australian administration blocked the development of an informal sector.
4. 'Opportunity' in this case includes the means of survival and reproduction and not simply work for oneself or for an employer. Relationships which seem parasitical are also included in opportunity (young people being supported in towns, or older people living off reciprocal obligations); and there is also a wide range of services, such as brokers and intermediaries, practitioners of religion and medicine, and aides and retainers of businessmen and politicians.
5. A fortunate conjunction of events in 1976 generated a period of excitement and self-help in education and community facilities, coffee growing and commerce (Adams 1978).

6. Jackson (1977: 30, 37) points out that the demographic structure of informal settlements is closer to the national norms than that of the formal town settlements.
7. Forbes (1974: 63) quoted a report of 1950, showing that 39% of Kailakinamu land had been alienated.

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