Chapter 3

Custom and money: integration or breakdown in Melanesian systems of food production

J. Bonnemaison

Both the profound cultural diversity of the islands and peoples of Oceania and the variety of natural environments have their influence on the types of food production. In fact, Melanesian civilization constitutes a 'whole', a kind of harmonious 'agro-cultural' equilibrium inside which not one of the component parts can be treated separately. Groupings and types of habitat, social structures of families and 'clans', types of 'chiefdom', methods of exchange, land tenure, choice of food crops and rhythm of work are all mutually interdependent, typifying a social and cultural organization where the economic choices are governed by the logic of a system of cultural exchanges and prestations.

This link between agricultural structure and cultural foundation is one of the essential characteristics of the Melanesian systems of food production. Under the effect of plantation agriculture, and more recently of urban growth and of the demand for food products, an evolution has occurred that, as we shall see, has an enormous significance. Great innovative capacities are in fact intermingled with astonishing barriers; and faithfulness to the cultural heritage goes hand in hand with a search for new procedures. The present evolution can only be understood by reference to a world of the very recent past which still remains alive and is in fact making a resurgence: that of 'custom'.

Principles of traditional agricultural food production

Oceanic agrarian systems are founded on meticulous horticulture and the almost complete dominance of root crops. Every cultivated plot is a carefully tended garden where a variety of plants are mixed together - each of them being the object of special or almost individual attention.

On the numerous small coral atolls of Polynesia and

Micronesia, where the exposed surface never lies more than several metres above sea level and where the sandy soil is barren and permits little more than a good growth of the coconut palm, the people establish their gardens in the lowest areas. There they dig out 'pits' up to several metres depth in order to reach the underlying pocket of soft water (Barrau 1961; see also Doumenge 1966). Each of these pits will become a micro-garden: the Polynesians will make it into a kind of 'basket' filled with earth and humus gathered from the highest parts of the atoll, or sometimes transported from neighbouring islands. Taros and breadfruit are then planted in these pits.

On the hilly islands of Melanesia, the yam is similarly the subject of meticulous attention. On middle and lower slopes of volcanoes or coraline raised plateaux, Melanesian gardeners use a single digging stick for hand-boring holes of up to 1 or 2 metres in depth. These holes are then filled with light soil (humus and surface layers) that has often come from other holes specifically dug for that purpose; finally a mound of similar light soil is built up over the hold, the dimensions of the mound being determined by the size of yam desired and sometimes reaching 1 metre in height and 2 metres in diameter. Thus in each garden the farmers reconstitute a series of vertical micro-sites that are in effect ecological 'islands' where soil conditions have been artificially recreated. The yam seed planted at the crest of the mound is the 'queen' yam, in other words a giant yam whose growth, if properly guided, will occupy the entire depth of the hold. On the same mound, and all around the giant yam, smaller secondary yams, taros and kava roots are planted in concentric circles.

In New Caledonia, the *billon* replaces the raised mound as the nutritive matrix: this is a crescent of raised earth several metres in length where several giant yams are planted 'in company'. Here too the unit of cultivation is not the garden but the *billon*, around which the secondary plants are grown.

Such scrupulously careful preparations are not confined to the yam. In New Caledonia in particular, but also in the New Hebrides, the taro grown in the most mountainous areas forms the basis of an intensive horticulture with complex hydraulic arrangements. Water is led through stone or bamboo channels to a system of levelled terraces, each of which constitutes a small irrigated garden of several square

metres; together, the terraces will often cover an entire slope.

The more intensive the Melanesian method of horticulture, the greater the corresponding tendency towards miniaturization. On individual garden plots that are never very large (between 500 and 1000 sq. metres on average) each man opens between three and four gardens according to the size of his family and the amount of his needs, cultural or economic. The object is to recreate a series of favourable micro-sites - sometimes dug vertically, sometimes raised up and spread out horizontally - that in effect are entirely artificial ecological islands in relation to the prevailing natural conditions of the plot. In each of these islands the growth potential of the chosen plants is encouraged to the maximum.

The aim of this horticulture is not production in quantity. It is less desirable to harvest a large number of yams than to obtain a few tubers which in relation to cultural norms will be luxury products. Traditional food production is thus based on a concept of hierarchy: each micro-site in the yam garden has been created in order to develop a giant tuber which will figure prominently in systems of exchange and social obligation; around the giant tuber grow secondary plants for day-to-day consumption. Food production appears to follow a hierarchy set by cultural and aesthetic criteria. The same principles apply to the production of large fleshy taros that are cultivated with maximum care in the best parts of the garden - sometimes in the centre, sometimes on the periphery, often on the colluvium and scree at the base of slopes. Their production allows each person to maintain his position in the system of obligations that in traditional villages constitutes the rhythm of social life.

When the 'ceremonial' tubers have been harvested, the plot is then put back into cultivation for a second season, although this time the crop production has more orientation towards foodstuffs and is thus much more extensive: crops grown are second-grade taros and yams, but also, and more frequently, sweet potatoes, manioc, *Xanthosoma* taros ('dry taros'), maize, sugar cane, papayas, bananas, kava roots, etc.

In the Melanesian environment, the hierarchical nature of traditional crop production has been developed to its

logical extreme. The plants of patrimonial custom, i.e. *Colocasia* taros and *Dioscorea* yams, are the subject of an elaborate study and classification which goes as far as distinguishing 80 sub-varieties or types of taro and 50-80 types of yam. Each variety has a particular name, its own vegetal characteristics and a particular cultural weighting or 'price' codified in the system of exchange. Criteria for classification vary according to island and cultural practices, but generally speaking fleshy tubers with the greatest growth potential are accorded the highest place in the traditional classification, and are thus planted in the best parts of the garden.

The concept of a hierarchy among the cultivated plants leads on to one of a selection of particular agricultural techniques for different varieties of plant. Littoral villagers (*man solwota*) thus specialize in yam culture, each small area possessing its own varieties and techniques of cultivation. Similarly, upland or interior villagers (*man bus*) specialize in taro culture, either dry or irrigated, the cultivation always being linked to a choice and a hierarchy of varieties which varies according to place and cultural practice.

In this careful and highly intensive horticulture aimed at the production of luxury goods, enormous demands are made on working time, particularly since traditional agricultural tools and equipment are, or were, primitive and less used. Clearing was done by fire and stone axe - today, by bushknife - and the huge task of preparing the garden was, and still is, largely performed by hand or with the aid of a digging stick; it is the same with weeding and cleaning of the garden, erection and maintenance of yam supports, construction of terraces for cultivation, etc.

In the systems of traditional custom, man lives in symbiosis with the garden, and adjusts his rhythms to those of vegetal production. Even outside the periods of clearing and activity, families will visit their garden every day and spend several hours there: for in addition to being a place of work, the garden is also a social territory where small groups come together for meetings and discussions.

Economy of exchange, economy of abundance

It cannot really be said that there is scarcity in the Melanesian economy, unless there has been some cataclysm

such as a devastating cyclone. On the contrary, there is a significant surplus of production over and above simple subsistence. This is not the case with the horticulture of the small Polynesian and Micronesian atolls, where natural conditions are so harsh that without the additional contribution of fishing the crop gardens would be incapable of feeding a very dense population. In Melanesia, particularly in the higher islands, the overall fertility of the natural environment and the skilful character of farming procedures give rise in the majority of cases to high yields. In the context of the traditional milieu, the Melanesian garden - the 'coral garden' alluded to by Malinowski - is the origin of an economy of abundance.

It has been calculated that diets in the 'custom' environment are largely adequate - 2600 to 3000 calories per day - and relatively varied. To sugar cane, numerous fruits, tubers and basic starchy foods are added small quantities of farmyard animal products. Although the consumption of pork only occurs during ritual ceremonies, it is nevertheless eaten regularly since such feasts are numerous.

If the Melanesians spend long hours each day in their gardens it is not because they are driven by a problem of subsistence. They could in fact ensure their subsistence with less expense and with much less work. The intensive horticulture is aimed at the acquisition of cultural wealth whose value lies in the economy of exchange. Furthermore an attractive and well-maintained garden is always a source of pride to its owner and there is also a certain sense of competition between neighbouring cultivators. In the years where a ritual cycle is planned, an even greater effort will be expended on the gardens and more attention will be lavished on the giant tubers; on the other hand, tension and activity decline during normal years, when nothing is to happen; thus the economy of abundance goes hand in hand with an economy of leisure.

This economy of abundance thus produces a surplus that is systematically exchanged along cultural circuits whose pattern varies from island to island. There is, for example, the principle of the grade system that operates throughout the northern islands of the New Hebrides. This is based in fact on competition in exchanges, at the end of which emerge the 'Big Men' - the most powerful men in the social group. Social organization is therefore based on a stratification into grades or hierarchical titles. Most men will attain

the lowest grades, for which it is sufficient to kill one, two or three pigs of different value, to have an adequate number of mats, taros and yams to feed and supply the participants, and to 'pay' further for the lifting of taboos and the wearing of badges and ritual masks, etc. The total cost of taking a grade increases with the rank of the title: for the highest grade of the hierarchy, sometimes more than a hundred pigs will be sacrificed.

In such a system, the acquired wealth is never hoarded, but systematically given. The Big Man who is a candidate for admittance to a higher grade will on the eve of the ceremony have no more wealth than any other person. It is just that over the years he will have given generously of his surplus taros, giant yams and tusked pigs to other clans and family lines. On the day of the ceremony he is only rich to the extent of the number of gifts he has made to those around him which are going to be repaid. Very often, the Big Man will receive more than he previously gave out: from then on he is in debt, and later on will need to redeem himself, often by additional borrowing. The circle is endless.

The winner, or the person who reaches the highest grades, is the one who not only settles his debts, but succeeds in making the others his debtors. He is the strongest because he has been the most generous. It is through adroit and generous manipulation of the exchange networks that the Big Man accedes to power. Thus there is nothing capitalistic about the system: the economy is based on the debts by which men are 'bound' rather than on the control of the means of production. As with horticulture, traditional stock-rearing specializes in the production of luxury goods that are systematically redistributed through the mechanism of debt.

The same system is followed in the southern islands, where there are such complicated procedures as the *toka*. The *toka* is a ritual cycle which brings together several local groups and leads to a whole complex exchange of dances and material goods, particularly of the huge glabrous (smooth-skinned) pigs that are the most esteemed variety on Tanna. For one or two years a tribal group prepares for the *toka* as follows: it not only composes new songs and dances, but also rears a sizeable herd of pigs and plants large gardens for the cultivation of the giant yams and kava roots that will be offered. On the day planned for the ritual, the cycle of dances will be exchanged between the participants and then all the material goods that make up the group's

wealth will be freely offered to the invited villages - on condition that they return the favour later on, of course.

Through these different processes - of which only the most spectacular are being described - the traditional economy reveals another of its basic principles: that of association.

The Big Man who emerges at the head of a social group is always there through the work of the 'company' that he has been able to regroup around him, even if this has been done by him individually making each of its members his debtor. It is the success of an individual, but has only been made possible by the emergence of a group structure. In the *toka*, similarly, the chiefs who govern the exchange mechanism and thereby attain prestige are only there through the association of all the men in the local group, who work hard together over a long period and undergo severe discipline for the sake of a successful *toka*.

In a sense, the genius of Melanesian civilization lies in this concept of association. Each person is his own master - master of his own garden, his crops and the pigs he has raised. The ground is the inalienable property of the clan, and each member has the right to its usufruct. In the traditional economy there are thus no wage-earners, no employers or workmen and certainly no proletariat. Everyone is lord of his own domain and master of his work. Yet, even with such freedom, the men like to form groups: they create what in Pidgin are known as 'companies' that are bound by common allegiance to a chief or Big Man, and within which the wealth acquired by horticulture, rearing of ceremonial pigs and manufacture of mats or shell money, circulates unceasingly. The traditional company is therefore a more or less formal institution that meets to plan a common goal, with the social partners practising the exchange of ritual goods both amongst themselves and externally.

Consequently the traditional economy functions on two levels. The first, assuring the maintenance of current alimentary needs, remains confined to the household and forms the unit of production that can be termed 'domestic'. The second, concerned with the production of valuable or ritual wealth, can only be understood in relation to the 'company' and to a much larger unit of production, that of the totality of social partners linked together by the same project and involved in the same current of exchange. The scale of the

unit varies according to the degree of political organization or influence of the Big Man who has been able to define the structure of the group; it ranges from the simple family network to the clan or to alliances between different lineages; it can even unify the entire social group, several villages or a whole island region.

I have tried in this analysis to explain how Melanesian civilization forms an indissoluble whole, and how traditional food production is inseparable from an economic context where the aim is the exchange of ceremonial wealth between the various members of the social group; and how this leads to the typically Melanesian institution of the 'company', in other words an association of free men bonded to each other by debts and counter-debts that are constantly being contracted between individuals.

The challenge to the traditional economy: 'Christ and coconuts'

The problems arising from the contact between Melanesian and European civilizations are complex. Let us simply note here that the arrival of the missionaries, followed by traders and planters, was expressed in the island worlds as an association of two themes - the Christian religion and the coconut plantation. For the majority, conversion meant to embrace a new faith and a new pattern of production. This change was once expressed to me in very simple terms by Melanesians: 'We abandoned the rod blong kastom for the rod blong mane - that of the Whites. Thus one day we killed our pigs and made fewer gardens, and instead we planted coconut palms' (see also Allen 1968; Brookfield 1972; Bonnemaison 1974).

In fact, it was on the islands where Christianity spread the most rapidly that coconut plantations developed to their maximum extent. Preoccupied with other subjects, the most heavily 'Christianized' Melanesians abandoned the production of ceremonial wealth.

In certain littoral zones, coconut palms have taken over most of the available space; the economy of exchange and the intensive horticultural cropping already described have disappeared altogether. The gardens, deprived of their cultural aspects and denied their 'necessary space', have declined in both number and area and have ceased to be the pivot of social life. Most of the sophisticated techniques

of cultivation have been abandoned. An important fall in yields has resulted: compared with individual yam roots of 15-20 kg obtained annually in the traditional system, average yields in the littoral areas today are only 5-6 kg per root. The gardeners compensate by growing new plants under easier techniques - *Xanthosoma* taros, manioc and sweet potatoes. On the island of Aoba, where coconut palms occupy the whole of the area below an altitude of 300 m, the yam has been practically abandoned and gardens are confined to a few manioc roots and beds of sweet potatoes.

But what does it matter if gardens are inadequate! For with the money earned by copra, it is possible to buy rice and tinned meat or fish. In addition to the convenience it provides, imported food has for a long time been doubly attractive because of a certain inherent social prestige it possesses.

In some islands, an equilibrium has nevertheless been maintained between those areas used for food cultivation and those devoted to plantations. But this equilibrium is very quickly upset once population densities exceed a threshold of more than 30 persons per sq. km (Bonnemaison 1977).

However, on *man bus* land above 300 m in altitude, where the coconut palm grows poorly, food production has remained important. It has even developed to the point of sales to the *man solwota* whose shrunken gardens are no longer adequate. The *man bus* are finding that such a bias gives them the means of integrating themselves into the market economy and of having access to the 'rod blong mane' which until now was closed to them. Furthermore, this practice renews a very old barter relationship between littoral and mountain peoples, who constantly exchanged taros for yams and mats for pigs; the *man bus* thus negotiated their rights of access to the seashore whence they collected salt water, crabs and coconuts; and the *man solwota* obtained the food surpluses that would otherwise be lacking between two yam harvests.

Today the commerce is most often carried out between one man and another, or between related families, but in some cases small local markets have been established close to transit zones or to littoral stores; the bush women come there to sell tubers grown on the mountain slopes. The change from a littoral peasant society into a society of planters has brought about a society that is absolutely dependent on others for food production.

It is within this overall context of change and spontaneous integration into the commercial economy that we can place the general problem of food supply to the towns in an island environment. Following the development of commercial plantations, urban growth constitutes the second great economic and social phenomenon introduced by the western world. The effects of the latter on Melanesian island societies are also extremely important.

Urban growth and patterns of food supply

Two urban zones exist in the New Hebrides: Vila, the administrative capital, and Sante (Luganville). The population of these two towns showed a marked increase after World War II. Melanesian migration to the towns accelerated during the early 1960s, culminating between 1970 and 1973 with what has been called the 'boom'. In 1967, the urban population made up 13.2 per cent of total population. In June 1975, the urban population was estimated at 20,656 persons, or 21.7 per cent of the total population of the New Hebrides; of these, 15,887 were in Greater Vila. More than two-thirds of the urban population are Melanesians - inhabitants of peripheral villages and, more particularly, migrants from rural areas. These migrants, cut off from their original environment, constitute an important market; at the present time they number almost 6000 in Vila. In addition, nearly 20,000 tourists pass through Vila every year and are catered for by various hotels and restaurants. The demand for food products is thus increasing from year to year.

Generally speaking, the dependence on overseas foodstuffs remains pronounced. Total food imports by sea rose in 1975 to 595 million FNH, or 25 per cent of the total value of imports. Rice is the most important component with 3217 metric tons imported in 1975 at a value of 97 million FNH; in the same year there were imports of canned meat to the value of 54 million FNH. Imports of vegetables by sea reached 443 metric tons or 12 million FNH, to which must be added nearly 50 metric tons (11 million FNH) that were imported by air.

There are several reasons for the importance of these imports. New consumption habits were essentially adopted during the era of large plantations, when workers were fed with plates of boiled rice on to which tins of meat had been inverted. These habits were then transmitted to the home villages of the workers, and then to the urban areas.

The priority given to copra production throughout the Group, the prestige of having imported foods that are linked to an external power, and the policies of commercial enterprises, have all favoured the continuation of this state of affairs. Other factors contributing to the emphasis on 'food dependency' are the lack of organization in the local market for food production and the internal logic of traditional agricultural systems whose aim is not commerce but exchange.

For several years, government officers have been systematically trying to develop the local food production, and restrictions on vegetable imports - particularly potatoes - are applied during the season of local production. Yet this policy would hardly have achieved any success had not the Melanesian society itself organized its own response to the new conditions of economic demand. Today an increasingly important component of traditional food production is being integrated into the commercial circuits, whilst the cultivation of fresh and European vegetables is being augmented so as to better respond to the needs of urban populations. The most noticeable evidence of this is provided by the development and recent importance of the local town market, entirely managed by the Melanesians themselves.

The Vila market. The Vila market, established by Tonkinese market-gardeners after the war, was taken over after their departure by the villagers of Efate. The market has been studied by Brookfield in 1965,(1969), Philibert in 1972 (1976) and more recently by Ward and Smith (1976). Ward is the most up-to-date and the best qualified to discuss the market. I will simply cite a few of its characteristics.

For several years the market has been held on three mornings per week in the streets of the town. One of its features is that the market is held and conducted almost entirely by women, with very few men participating in the commerce. Apart from a few curios and shells, the goods sold in the market consist largely of tubers and fruits produced in Melanesian gardens - taros, yams, manioc, sweet potatoes, Chinese cabbages, bananas, coconuts, limes and kava roots, etc. In 1965, Brookfield found only a sporadic and peripheral market activity, indicating only a slight integration of villages on Efate into the commercial economy. Philibert and Ward, on the other hand, discovered a very different situation; Ward found that the total number of vendors in the market reached 365 in one week. Some vendors travel in by taxi from villages at considerable distances from Vila,

forming themselves into groups to pay for transport. Over one year, the total annual sales in the Vila market can be estimated at $A220,000 (20 million FNH). The quantity of vegetables, tubers and fruits available each week in the market is around 17 metric tons. Such figures are very significant and point to a solid integration with the commercial and monetary economy.

In addition, comparison between products sold in 1965 and 1976 shows a marked advance in sales of root crops, which are mainly consumed by Melanesians. In 1965, sales of root crops in the market represented only 17 per cent of total sales, whilst those of European plants and vegetables reached 27 per cent. In 1976, sales of European vegetables counted for no more than 5 per cent of total sales, whilst those of Oceanic tubers had risen to 41 per cent. This change in goods on sale is partly caused by the disappearance of non-Melanesian producers and vendors; it further parallels the alterations occurring in the demographic composition of Vila, being a response to the demand created by the influx of Melanesian migrants to the urban area.

It can thus be estimated that the urban market produces 10-15 per cent of Vila's supplies of fresh and European vegetables, and probably as high a figure as 70 per cent of the town's supplies of Oceanic tubers.

The official system of collection and distribution. Melanesian cultivators on Efate have another means of selling their produce in the town. The co-operative departments ('Fed Coop' and 'SCAF') organize transport circuits, in conjunction with agricultural technicians from the Department of Agriculture, for the collection of food products over the whole of the island - particularly from the northernmost villages. Those in the south, nearest to Vila, direct their sales exclusively towards the urban market. A central distributive store in the heart of the town then redirects the collected produce to hospitals, schools and other institutions and to small retail stores; it also sells to individual buyers.

The disposable production, three-quarters of which comprises *Xanthosoma* taros and bananas, reaches almost 200 metric tons per annum, representing a total value of some 3 million FNH; to this must be added another 50 metric tons of tubers collected by boat from neighbouring islands. Following the advice of agricultural technicians, the

proportion of European vegetables is tending to increase from year to year - particularly tomatoes, which fetch a good price. Furthermore, SCAF exported 50 metric tons of tubers to the New Caledonian market during 1975, although none in 1976. In point of fact the market is still too disorganized for stable patterns to be established, and the situation appears to vary considerably from one year to another.

At the present time, according to a survey by the Joint Office of Development Planning, this official collection system provides 24 per cent of the supplies of market products and European vegetables, and a similar proportion of the total supply of tubers; it particularly provides food for schools and hospitals.

From the above it can be seen that the total quantity of root crops and Melanesian fruits sold in Via approaches 700 metric tons - 500 metric tons in the Melanesian market (estimated from Ward's figures) and 200 metric tons collected by the official agencies. With the 'unconnected' Island population and that of the peripheral villages reaching almost 8000 persons, the consumption of tubers per head in the urban areas can be estimated at between 0.2 and 0.3 kg per day under existing conditions of supply. Yet this figure is misleading: for firstly it takes no account of the numerous invisible inflows coming from relatives in the villages - each visitor arrival being accompanied by a gift of tubers; secondly it disregards the numerous tiny food gardens that have been cleared by the migrants inside the urban perimeter, even though their production is difficult to evaluate. It can be assumed that this production together with the invisible inflows is equivalent in quantity to the amount sold in the market or by SCAF. Thus individual consumption probably reaches 0.4 kg per day, which is well below the amounts of 1.2-1.4 kg consumed daily in the rural areas. It follows from a study of 1975 figures and the present pattern of consumption that between 50 and 60 per cent of the total food consumption of the urban Melanesian population is dependent on imported products, particularly rice and tinned foods.

Nevertheless, the dynamism inherent in the present situation may in the long term change the facets of the problem. Whether it is occurring through the official agencies or whether the greater part is due to the spontaneous growth of the urban market, Melanesian food production is clearly

being integrated to an increasing extent into the commercial circuits. Food cultivation is becoming the second largest source of profit, after copra, for the Melanesian villages of Efate and some of the neighbouring islands. However, it is generally known that the greater the fall in copra prices, the greater the emphasis on food products, and that the latter tend to decline when the copra market rises. Thus the adaptation is not taking place without a certain degree of speculation.

The response of Melanesian systems of crop production to the demands of urban markets: the case of Efate

With few exceptions, Melanesian food production has adapted itself to the growing demands of the urban markets without any revolution in methods of production. Indeed the Efate gardens that feed Vila continue to be cultivated according to traditional rhythms and horticultural techniques.

During the first year of cultivation, gardens are essentially devoted to yams; these occupy the centre of the plot and are surrounded by alternating bananas, manioc (cassava), *Xanthosoma* taros, etc. Yam plantings are largely of the soft variety, which are particularly valued on Efate and from amongst which the giant yams were formerly chosen for rituals. Although of a lesser complexity than in the past, the techniques of this soft yam cultivation are still intensive and meticulous (small mounds, holes, supports, etc.) and are essentially oriented to family consumption and to social prestations.

Once the soft yams of the first season have been harvested, the plot ceases to be a custom garden. Essentially it becomes commercialized. Instead of further plantings of soft yams, there are only sweet potatoes, manioc, 'strong yams', *Xanthosoma* taros, cabbages and sporadic European vegetables. Sometimes the cultivation is continued for a third year, if soil quality is favourable. The ground will then lie fallow for several years before the cycle is resumed.

In North Efate, where the available space is greater, this double aim of production - customary on the one hand and commercial on the other - is expressed by having separate plots. Thus gardens used for family consumption and custom yams can be distinguished from other plots where the predominant plants are root crops of external origin destined for sale.

In this way Melanesian society differentiates between those tubers which are part of the customary heritage - *Dioscorea alata* yams and *Colocasia* taros - and the imported tubers that are outside the custom system of reference. The former belong to what is customary rather than what is commercial. The latter, even though they have featured for a long time in the eating habits, are free from custom; they form a part of the 'rod blong mane' in the same manner as the *buluks* (livestock) and European plants, and for this reason can be sold without restriction. This distinction between customary and imported plants explains why the former are rare and sold at a higher price in the Vila market. For example, *Colocasia* taro - a custom plant - is sold in the Vila market at 39 FNH per kg, while *Xanthosoma* or Fiji taro - of external origin - only sells at 19 FNH per kg. In the same way, manioc sells at 19 FNH per kg and sweet potatoes at 23 FNH, while yam roots attain a price of 41 FNH (Ward 1976).

Thus the content of the urban market shows features that can only be explained by reference to an underlying cultural system. Yams are particularly lacking. The New Caledonian market's demand for this tuber can find no source of supply for the same reason. Furthermore the economy remains domesticated and individualized within the framework of the restricted family, with agricultural techniques such as the organization of work showing only a slight evolution. This response of Melanesian society through its own customary structure indicates a flexibility of adaptation but at the same time it may in the long term prove a handicap. For in the general context of conservatism, technical innovations are poorly accepted; thus the imported tubers, whose methods of culture are closest to those of the plants of the customary heritage, are much more easily adopted than the European crops and fresh vegetables, whose techniques of cultivation differ from the normal habits. And the types of company or society that work well in relation to 'rod blong mane' - stock rearing, copra, production co-operative - encounter many more difficulties as soon as they touch upon the sensitive and personalized food garden - the heart of custom and the economy of exchange.

Women appear to be particularly active in this dual context of change and fidelity to the principles of custom. For it is the women who have exclusively cornered the commercial functions. This is largely because custom is the business of men, and it would be a loss of 'face' for a man

to sell tubers that are for gifts or exchanges. Women, however, have shown that they are freer to undertake the commerce in tubers. In most cases, it is not the men who have imposed a commercial role upon the women: it is the latter who have seized it for themselves. The Vila market is the creation of the women of Efate, who have allocated the selling areas amongst themselves and who form themselves into groups for organizing the conveyance of their produce by taxi to Vila. Women appear to be an agent and motor of development in Melanesian society - something that has not yet been sufficiently grasped in Melanesia.

The other novelty in the pattern of food-growing is the recent appearance of Melanesian 'entrepreneurs' specializing in the production of imported root crops and European vegetables. There are several of the small-scale entrepreneurs in North Efate. Their manpower no longer comprises family helpers, but is salaried, and the extent of their exploitation is greater than that of other villagers. From the point of view of the techniques of cultivation used, the more speculative choice of cultivated plants and the volume of commercial produce, they have gone beyond the domestic economy. Those entrepreneurs very often link their agricultural exploitation to the creation of livestock pastures, and they would seem to act as 'animators' of their village communities.

These small- or medium-sale entrepreneurs are immigrants from neighbouring islands who have married women of the island; this advantage has been used to obtain rights to land, which is then developed. They have a 'de-territorialized' attitude; they have no more 'custom', neither do they feel in any way attached to that of Efate. They look to the future and to the ways of 'bisnis blong mane'. Their uprooting has caused a break with the custom world. At the present time they supply almost 10 per cent of the vegetables consumed in Vila. The agricultural technicians are finding them the best pupils and are advising them to orientate their cultivation further towards the production of fresh vegetables.

The case of the agricultural and market gardening societies of Tanna

For over ten years, Tanna has been the scene of a most interesting micro-case of development: the GAMs (Groupements agricoles et maraîchers) and various other agricultural and market gardening companies are particularly noteworthy as they are modelled entirely on pre-existing traditional structures.

Custom is still very strong on Tanna, especially on the central plateaux of the island known as Middle Bush. In this area, which probably because of faithfulness to its own customary heritage consistently refused to accept Christianity and then later on the cargo cult that spread throughout the island, the coconut palm grows but does not yield fruit. Thus copra is not a profitable activity. When the local agricultural companies were created, they set themselves the task of supplying the Vila urban market with home-grown vegetables, particularly potatoes.

Agricultural difficulties are non-existent; soils are fertile, the climate is more temperate than in the rest of New Hebrides and the men are naturally skilful gardeners. The problem was to form and then guide the production societies and to plan a system of disposal and regular distribution to Vila.

These local agricultural companies have brought out quite naturally the clan and village solidarities. In this respect, the failure of the first attempt was significant. A large GAM was created for the whole of Middle Bush, grouping together several different villages: although it was essentially based on neighbourhood ties, it disintegrated very quickly, showing that the grouping will only exist to the extent of its foundation on small territorial groups corresponding to clan and 'allied' family lines. The present GAMs, comprising the fruits of this disintegration and others created later on, correspond to small or medium-sized societies fused together by the bonds of common territory and the circulation of customary goods of exchange.

The fragmentation of individual rights in the traditional environment has never constituted an obstacle. Each local agricultural company groups together the fields belonging to different owners in such a way that the whole corresponds to one and the same territorial unit. In fact, there is nothing in custom to oppose a communal use of the ground. Each person knows his territorial rights very precisely, but in practice he may cultivate in a completely different area. It is even considered good manners to lend one's own land and to agree to work the ground that one is offered; this strengthens the bonds between the members of the social unit. The use of garden lands is thus open to most of the members of the group, on condition, of course, that they do not indulge in perennial culture or the plantation of trees. The society thus has no difficulty in creating its land base out of the dispersed land rights of individuals.

From the beginning, the work of those 'agricultural companies' was directed and guided by the officials and the agricultural technicians; but the latter took care to let the people organize themselves and to leave them masters of their own choice. The profits were at first retained for repayment of the loans of seeds and for use in future investments; later, they were for the purchase of a vehicle to serve as transport and during the rest of the time as a taxi. Some companies have opened a store, where imported products are sold according to co-operative procedures. The allocation of work takes place through the society, which itself nominates its own officers.

The society formed in this way reactivates a traditional structure - the principle of 'association' - but within the context of a modern economic project. The 'rod blong mane' is added to the ancient ways of custom, but does not interfere: for the way of giant yams, glabrous or smooth-skinned pigs, rituals and exchanges is still maintained separately with other leaders and under other conditions.

Moreover, it is significant that the local agricultural companies have only succeeded on Tanna among local groups whose custom-based cohesion has remained very strong, particularly among pagan and John From peoples. The Christians, who are often much more involved in the plantation economy and in migrations to the towns for work, and whose social structures would appear to be much more fragmented, have not succeeded so much in forming agricultural companies.

We should finally note that the technical advice of the agronomists is readily accepted if it concerns new plants, fresh or European vegetables that do not form part of the heritage. On the other hand, within their yam or taro gardens the men of Tanna still recognize only one agricultural law, that of their ancestors, and one sole aim - that of the economy of exchange. The market economy is unable to obtain a foothold in anything concerning custom (traditional gardens and pigs). The people of *kastom* believe that this is the price of their preservation and their identity, no doubt they are right.

Nevertheless the 'agricultural companies' are running into a grave problem - that of transport and communication with Vila, their principal outlet, situated at a distance of several hundred kilometres. The company Air Melanesiae accepts loadings of vegetables on three of its flights per

week, but this entails the addition of around 28-30 FNH per kg to the price of the transported cargo. The Tanna produce thus runs into direct competition with the market gardens of Efate, which are favoured because of their proximity. In addition, one cannot be sure of the regularity of the arrivals, for as a unit of tourist weight transported to Tanna is more valuable than that of tomatoes or lettuces, Air Melanesiae frequently sacrifices the latter for the former. Similarly, even if maritime links are beginning to be organized in response to the needs of the largest island of the southern district, they are neither sufficiently regular nor rapid (one or two boats per month). There is therefore much loss through poor connections, bad weather and defective packing. Those responsible are thus trying to orient the island's production towards the most easily-preserved vegetables, potatoes in particular, whose storage and transport can be carried out without too many shipping problems. Although the market for early vegetables is more particularly the preserve of the market gardeners of Efate, such a system of regional division of production would appear too difficult to carry out without rigorous planning.

To obtain a production that is regular, diversified and phased into different periods is not easy in an island environment in view of the problems of transport, of conditions and especially of organization. Nevertheless it is thought that the Group's requirements of vegetables will soon be met, at least during the 6-month season of production; the next goal is to arrive at complete self-sufficiency.

In 1976, Tanna produced nearly 150 metric tons of potatoes, or the equivalent of 3 million FNH value: in 1977 200 metric tons are anticipated. Yields are easily reaching 12 to 15 metric tons per hectare without fertilizer. This production, predominantly achieved through the local agricultural companies, can be increased still further. The production of other vegetables is equally important. The principal problem is to spread out this production over time in such a way that it can meet urban needs not only for a few select months but throughout the whole year.

In the meantime, the example of the local agricultural companies of Tanna shows that the adaptation of a modern-type economic project to a very traditional society is not only possible but even facilitated when the cohesion of community structures based on custom links is maintained. Yet equally this implies the introduction of a certain number of

conditions, namely:

(a) the prior organization of a collection and distribution pattern;

(b) the taking into consideration not of particular individuals, but of the whole traditional territorial group (with its inherent structure and hierarchies) as the most suitable receptive structure for a development scheme. In the traditional environment, the individual can only be understood as a member of a territorial group, and it is at this community level that the first approach must be made;

(c) finally, the existence of discreet 'advisers' who are sympathetic to this type of society and who leave the people to organize themselves according to their own criteria.

Conclusion

Obviously development is not a cultural problem in the Melanesian environment. Melanesian societies are sufficiently supple and pragmatic to adapt to the new conditions set by urban growth - the astonishing success of the Vila market is significant in this respect. Furthermore, the problem is not an agronomic one either: the islands are fertile and Melanesians are born gardeners who readily absorb the advice they are given. The principal barriers at present are of a structural nature, relating to the disorganization of the market and the insufficiency of collection and distribution networks.

The micro-cases of development and integration into the commercial economy reported above all have a common factor. The increase in food production has almost immediately followed the organization, whether official or otherwise, of a system of collection and distribution. This has been the case for the whole of North Efate and is even more the case on Tanna, where the agricultural potential released is now greater than the capacities for outflow to Vila. In fact every development scheme should be integrated. Attention is paid to the agricultural adviser only to the extent to which a collection network has been established for permitting the outflow of the produce he is suggesting. Up to the present time, it is at this level of organization of the distribution system that the chief bottleneck has occurred

in a food production that is still far from having attained its optimal capacity.

Besides this, the importance of alimentary products in the balance of New Hebridean external trade (25 per cent) poses in the long term a general problem. One of the principal bases of food of town-living Melanesians is not the tuber, which is very expensive for them, but the rice and Fijian or Japanese tinned fish which, as we have seen, make up almost half the daily food intake of the urban inhabitants. To change food habits is not easy, and after all rice is a healthy food much appreciated by Melanesians. From a strictly agronomic point of view it could easily be cultivated in the New Hebrides, especially since techniques of terraced irrigation constitute a part of the traditional milieu and are used on certain islands for growing taro.

At the present time the effort being expended in the New Hebrides on the development of market gardening and vegetables is aimed at the limitation, even the suppression, of imports. This is a necessary stage, but other avenues must also be pursued - that of root crops, to start with. The yam still remains the preferred food for many Melanesians. For cultural reasons, it is sold little and at a high price. But the development of rapid varieties capable of growth in any season, as is already happening in Martinique with the so-called yam, would permit the extension of harvests and a cultivation that is easier, more rational and even mechanized, as in Fiji.

Perhaps it is also necessary in the collective institutions, particularly schools, to stop the systematic preference for diets based on rice and tinned foodstuffs or European products.

The next development plans should thus be on two levels: on the one hand they should encourage the supply of vegetables and tubers to the towns by rationalizing non-custom production, and further by organizing regular collection networks throughout the Group. On the other hand there must be a start on the study and setting up of trials for a rice production system that in this fertile archipelago could not only meet the country's requirements but even provide surpluses for export.

The rupture of 'food dependency' remains the goal of the New Hebrides, and it is clear that no real development can take place without it.

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Joel Bonnemaison

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