

ECONOMIC CHANGE AMONG THE SIANE TRIBES

OF NEW GUINEA

by

Richard F. Salisbury-Rowswell



Submitted to the
Australian National University
in partial fulfillment of the
requirements for the degree
of
Doctor of Philosophy
in Anthropology.

1957

Except where specific acknowledgment is made in the text by means of references, all parts of this thesis are my own original work. The help of persons who contributed items of information on which the present analysis is based is acknowledged on pages i and ii. I cannot ascribe any particular parts of the thesis to the help of the many people acknowledged on pages i and ii who clarified my own ideas in discussions. Dr. W.E.H. Stanner's help was invaluable in pointing out stylistic errors in earlier drafts, and in showing where my earlier formulations were logically inconsistent.

R7 Palinsky-Lewis

Cambridge
Massachusetts, U.S.A.

May 2nd 1957

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Thesis Abstract

In 1933, when the New Guinea Highlands were first explored, the Siane peoples used only stone tools. During the succeeding 20 years steel tools have completely replaced stone ones. Until 1945 Europeans did not affect Siane life directly, although the stimulus for economic change came from the introduction of steel tools and European goods. For 12 years the direction and manner of economic change was determined by native society, its exchange relationships and values. Since 1945 the Siane have been visited and patrolled, and indentured labourers have gone to the coast. But related tribes to the south continue to use stone tools and were first visited by patrols in 1952. The area presents a unique opportunity for the study of economic change taking place autonomously (though under European stimuli), and involving technological innovation and the introduction of new consumer goods in a completely "native" society. The recency of events permits a simple historical reconstruction, while the nearby groups, which have changed less, confirm this reconstruction.

In the indigenous economy three nexuses of activity -- subsistence, luxury, and gima activities -- can be distinguished

by considering the native attitudes to each, the social relationships involved in each, the types of property concepts involved, and (to some extent) the commodities used in each activity.

In the subsistence nexus of activities each of the exogamous patrilineal, patrilocal clans obtains its food, houses and tools through an economy of shifting garden agriculture. Individuals, lineages, clans and tribes have overlapping rights over land, summed up in the native concept of "father of the land". These rights ensure that land is available to all members of any group, and that the fruits of an individual's work on his own land are retained by him. By virtue of clan obligations the labour of the clan group is also available whenever needed by any member, though the obligations are more often invoked to call together smaller groupings. Tools and manufactured articles are owned absolutely by their manufacturers as personalty, though such ownership may be transferred to other persons. Consumable subsistence goods are called "things of no account" and are distributed throughout each clan as part of each man's clan obligations, without any strict account being kept of them. The most distinctive feature of all subsistence activities is that they are carried out independently within each separate clan, and if outsiders are concerned with them, those outsiders are temporarily "adopted" within the clan.

Secondly there is the nexus of activities involving consumable luxury goods. Individuals (or sometimes groups of individuals)

visit friends, help them harvest a crop of a luxury commodity, are entertained and are given a gift of part of the crop at their departure. Later the hosts return the visit, and receive gifts of the commodity which the erstwhile guests produce. The commodities involved are termed "little somethings", and are not subject to detailed accounting although exchanges must be approximately equal or the friend-relationship may be disrupted. Goods are owned absolutely as personalty, and are used at the owner's whim for entertaining visitors, as gifts, or for self-indulgence. The social relationships through which the commodities are obtained and used are those of individuals with their maternal kin, or with fictional kin "friends".

Thirdly there is a nexus of activities involving the handing over of "valuables" in a public transfer called gimaiye at rites of passage, peacemakings and other ceremonies. Pigs (as pork) are the only useful valuables, while others are non-utilitarian objects such as shells. Valuables are termed "somethings" and a strict account is kept of each transfer and of the value returned for it. Although individuals own valuables as personalty, they use them to contribute to large payments which are made by clans, acting as corporate groups, to other clans also acting corporately. The giving and receiving of payments is a means of asserting the separateness of the clans involved. The flow of valuables in payments is matched by an equal and opposite flow of rights (especially rights over women) in the opposite direction, and, since the total

stock of valuables is relatively limited, the flow is in fact a steady circulation. The limited supply of rights available ensures a distribution of valuables throughout the area. Other commodities can be used in gimaiye activities provided that they are not of immediate use, and that the relationship involved is between corporate clans.

The three nexuses are linked into one economy through the need for allocating time, the only resource used in all activities. In stone-using times both men and women spent 80% of their time in subsistence activities, and about 5% each in luxury and gima activities. Now that steel tools are used the men spend only 50% of their time in subsistence, 18% in gima activities, 6% in luxury activities and 17% in newly introduced activities. Women's work has not changed, nor, presumably, has the amount of time lost through sickness (10%).

The economic changes took place in two phases. Before direct contact with Europeans new commodities and increased supplies of shells entered the Siane area as gima presentations. The frequency of the presentations also increased and inflation resulted. This had the effect of distributing the new goods more rapidly, and of concentrating power in the hands of important men. At the same time, some objects which were used at first as valuables came to be used as luxury gifts, thereby introducing some uncertainty into the classification of goods, and into the distinctness of the gima and luxury types of exchange relationship. This was a time of

changing values, but a new set of values seems to have become stabilised before direct contact with Europeans began.

Direct contact with Europeans increased the flow of new goods into Siame, and also brought in money. Pound notes became classified as valuables, and coins as luxuries. A limited exchange of food for valuables or luxuries became possible when patrols visited, and this has introduced more uncertainty into the native classification of goods. But the biggest change has come now that youths go for indentured labour to the coast. The goods they bring back are distributed on their return and fed into the gima exchange system, further strengthening the power of the important men. But the returned labourers have learned new consumption patterns and have learned to exchange "valuable" pound notes for "luxury" shillings. Not only does this mean that standards of value have become less clear, but the native means of accumulating capital are breaking down. The changes could result in either a fragmentation of the present social groupings and more individualism in the ownership of property and in work, or a development of small economic "empires" under the control of important men.

The economic changes can be interpreted in more orthodox economic terms if capital is so defined as to make it measurable in a non-monetary economy. The net result of the change from a stone technology to a steel technology with a more productive form of capital has been a small decrease in the total amount of capital owned, and in the amount of capital replacement needed each year.

Relative to the amount of labour used in subsistence production the amount of capital used has increased very slightly. Thus capital has not been substituted to any appreciable extent for labour, as a factor of production, but the use of both has declined since the demand for the products of enterprise has remained constant. In the gima activities, where there is an elastic demand for the "services" produced, the use of goods which resemble capital has increased even more than the use of labour has. The technological unemployment produced by the new technology is not so much a harmful effect of over-population and of a surplus of labour, but results from the stability of subsistence demand, and permits the diversion of labour to other activities which eventually stimulate the demand for subsistence goods. This increased demand is now beginning to show itself, and is being accompanied by some tendencies to individual capital accumulation (when the pressures inducing dispersal can be evaded), and other tendencies towards the accumulation of capital by large groups of people.

The nature and level of demand is thus an effective cause of economic development, although capital investment is a necessary precondition for it. Changes in the level and pattern of demand can be studied statistically from the records of what European goods were taken from the anthropologist in return for food and services during one year. This was the only source of supply in an area of over 200 square miles, inhabited by 15,000 people and the figures are almost complete. Prices and supply were constant throughout the period, so that all changes in

the number of transactions taking place were the result of demand, changing in response to "extra-economic" factors. Goods demanded fell into five categories, three corresponding with the native categories of subsistence, luxury, and valuable goods, and the others being "European hard-goods" and "cash". Both for individuals within one clan, and for different clans the total demand, and the percentage in each category of goods of the total amount demanded, varied with the amount of previous learning of European habits, with the number of goods previously obtained, and with nearness to the source of supply. The same variation appeared as the patterns of demand for any one group changed over time. At first, and among the least Europeanised groups, there was a demand for valuables. Later this demand fell off considerably and was replaced by a demand for luxuries. Eventually this demand dropped too, and a demand for European hard-goods grew up. The level of demand for subsistence goods stayed fairly constant for any one group, but was fixed by the degree of previous Europeanisation. Cash was often demanded as a valuable in the early stages, or as a means of obtaining hard-goods in the later stages.

To explain the differing elasticities of demand for goods of different categories we can study the standards in terms of which the categories of goods are valued. The goods categorised by the Siane as "subsistence goods" are valued according to their contribution

to maintaining, not merely life, but each individual in his accepted social status. Failure to use the appropriate goods would result in the individual's losing either his life, his membership in society, or his established position in society. In terms of a social function, the use of these goods maintains the existing standard of living, and satisfies what Marshall calls "wants adjusted to activities". Because of this styles of food, shelter and clothing commonly become symbols of a way of life.

What the Siane call "valuables" are used in gima activities, not merely to obtain rights over women, but more generally to obtain any kind of power which is not already implicit as "authority" in the social role of an individual. This free-floating power is most often obtained by derogating other sovereign groups, but can also be obtained by using valuables as a means of social mobility within one's own clan. Gima commodities are valued according to the amount of power their disposal or transfer will bestow. The whole system of gima activities has the function of distributing the stocks of free-floating power throughout the society in an equitable way.

Luxuries are used by the Siane mainly for the entertainment of visitors or for direct personal gratification, but can be used by individuals for other ends if they so desire. The goods appear to be valued according to how much they permit the individual to gratify

personally idiosyncratic desires, which are not directly gratified by the subsistence or gima activities. Self-indulgence and personal friendships (as contrasted with corporate clan relationships) are the most common desires not provided for by the formal role structure or the power hierarchy of society. The amount of luxury goods used constitutes what Marshall calls "the standard of comfort". The social function of activities using luxury goods is to provide an insurance against too much rigidity in the role structure of society and to permit the gradual introduction of new but possibly useful goods.

European hard-goods obtained from the anthropologist do not fit these categories, but are valued according to their services in maintaining in use some novel capital investment, producing goods or services not at present provided by subsistence activities. The demand for hard-goods may be considered, by extension, to provide an index of the demand for capital goods of novel types.

The first three standards of evaluation of goods are common in many non-monetary societies. As in Siane, the activities in which the various goods are concerned commonly form empirically separable nexuses. Even in a monetary economy the same disparate standards of value may be distinguished analytically.

The four standards of value prove useful in describing the process of economic change in Siane, both on the social level and on the level of demand changes after the arrival of the anthropologist.

Given an existing standard of living (supported by a stable level of capital investment) and an increase in the supply of goods, the new goods were not immediately used to increase the standard of living, but were used by individuals to increase their power. When, on the basis of the economic laws of supply and demand, a new distribution of power had become established, people turned to the use of goods to obtain personal gratification, and the standard of comfort rose. As the supply of goods increases and the erstwhile luxuries are becoming accepted as necessary to the performance of social roles, the standard of comfort is being converted into a new standard of living. This higher standard of living cannot be maintained unless there is a corresponding increase in capital investment. The question in Siane now is whether it can make these new capital investments, while other social pressures are tending to disperse new capital accumulations.

It is suggested that this cyclical process of raising the standard of living, not continuously but by step-wise jumps, is common in other non-monetary societies. The introduction of money, though "rationalising" the economy may serve to make the various stages less apparent, and lead to a concentration on luxuries before the problems of distributing power have been settled. The introduction of money may also serve to reduce the effectiveness of the automatic mechanisms controlling the supply of capital, which are present in a small-scale society.

ACKNOWLEDGMENTS

My intellectual debt to previous writers, notably Professor Raymond Firth and the late Professor S. F. Nadel, is acknowledged, albeit inadequately, in the text. Here I wish to thank the "killick" instructor who introduced me to the study of economics in 1947, and my anthropological teachers at Cambridge, Harvard and the A.N.U. who are not thanked in the body of this thesis. More specifically I wish to thank Dr. Cyril Belshaw for the stimulation to collect economic statistics; Drs. Peter Lawrence and Michael Read who initiated me into pidgin and fieldwork; The Australian National University who supported my fieldwork as a Research Scholar of the University; Professor Nadel, whose example and criticism made me more thorough than I otherwise would have been; all my innumerable friends in New Guinea who were unfailingly hospitable and helpful, from my first welcome to the Territory by Mr. Dick Tebb, to my send-off feast at Goroka provided by Mrs. Ellen Pitt; Harvard University, since this thesis was written during my tenure of an Arnold Fellowship and a Research Associateship there; and my wife, who had to bear with me while this thesis was being written.

In addition to all the New Guinea friends whose hospitality is comprehensively acknowledged above, I wish to thank Messrs. Slim Blakely, Bob Cottle, James Foldi, Cherry Lane, Joe Searson, Jim Taylor and the Rev. Robert Hueter, who will recognise where their statements

(ii)

have been used in the text. I wish also to thank Yawe, Kono, Famti, Yofantena and Noimfanu and all my other Siane helpers for their hospitality and for their information which, I regret, they are unlikely to recognise. Not I hope because it is too distorted, but because they will never read this thesis.

During the writing of this thesis I have benefitted from discussions with Drs. Talcott Parsons, John Pelzel, David Riesman, Howard Roseborough, and Neil Smelser, but my biggest debt during the writing has been to my supervisors Drs. Douglas L. Oliver, and W. E. H. Stanner who have read drafts and given invaluable criticism. I only regret that Professor Nadel's untimely death allowed him to comment on only one chapter.

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Chapter 1

Primitive Economics and the Present Problem

Marshall defines economics (1925:1) as the study of "that part of individual and social action, which is most concerned with the attainment and with the use of the material requisites for well-being". Other writers stress the aspect of "economising", or the allocation of scarce means "to competing wants, in such a way as to yield the maximum of satisfaction" (Knight and Hines 1952:6). For present purposes we shall treat activities as being "economic" when they have to do with the material requisites for well-being, when they deal with the scarce resources of the environment, of human strength, and of time, and when they are organised on the principle of choosing between alternative methods of use in order to obtain the maximum of satisfaction.¹ Primitive economics then becomes the study of economic activity among pre-literate people. As such it must be sharply differentiated from deductive reasoning about what a hypothetical creature, homo economicus, would have done if he had been confronted with economic choices at a time when society did not exist. Such theorising may be called, as by some orthodox economists, "Bongo-Bongo economics"; it is not primitive economics.

Early anthropologists generally tended to limit their treatment

 1. c.f. the definition Firth (1939:356) uses, quoted here on page 11.

of primitive economics to descriptions of technology. It is a tendency which has been deplored by Firth (1951:130), Herskovits (1952), and the Royal Anthropological Institute (1951:159). A description of technology is indeed essential if the economic choices made in a society are to be understood, but merely to describe technologies is to limit the task of the anthropologist to the tracing of man's progress from savagery to civilisation. On this basis early writers worked out a developmental series of types of technology. They then correlated the level of technology with other social facts. Morgan's (1877) correlation of the stages of economic development, of savagery, barbarism, and civilisation, with types of kinship system is a notable, if sterile example. Hobhouse, Wheeler and Ginsburg's (1915) correlation of economic development with the type of political organisation provides a high point in such studies, as does Durkheim's (1893) correlation of technology with social complexity, with the size of society which can be held together, and with the division of labour.

Such early authors were less concerned with general economic theory than with tracing the putative "evolution" of present-day economic institutions. Their school of thought survived even until 1936 in such works as the first two parts of Thurnwald's (1932) Economics in Primitive Communities, and in Viljoen's (1936) Economics of Primitive Peoples. The type of generalisation made, is, for example, that "the primary meaning of the objects we class with our money is religious or magical, while its more strictly economic use is a subsidiary function" (Viljoen 1936:227).

The second main trend in writings on primitive economics has been the demonstration that the concepts of western economics are applicable in the analysis of primitive economic activities. Firth sums up this trend by saying (1951:122) "the anthropologist's problem is one of applying or translating economic principles in novel contexts". The first two analyses of primitive economies, employing economic principles rather than descriptions of technologies both appeared in 1922 — Malinowski's study of Trobriand trading, Argonauts of the Western Pacific, and Barton's study of the Filipino Ifugao Economics. Armstrong's (1928) study of Rossel Island, and Firth's (1929) study of the New Zealand Maori are in the same tradition. In 1932 Thurnwald attempted the first major summary of how orthodox western economic concepts can be illustrated in primitive economies. His evolutionary bias has already been referred to, but the later parts of his book contain many theoretical generalisations, some of which are referred to below. Hershkovits (1952) gives a more recent summary on the lines of the later parts of Thurnwald's book.

Thurnwald's major conclusion is that the economic organisation of primitive society is inextricably bound up with the political, kinship, religious and other organisations of the society. This is the main theme of Richard's (1932) study of nutrition and the social values attached to food among the Southern Bantu, and of her (1939) study of the social factors involved in economic production among the Bemba. Numerous later writers take up the same theme, but the point can be considered made, once and for all, in Firth's 1939 study of the Tikopia.

During the 1930's attention shifted, in the realm of primitive economics as in other fields of anthropology, to the study of change. Firth sums up what has been done as follows,

"Little information has been accumulated as yet by anthropologists on the subject of autonomous change (or change which occurs within the society and not because of outside influences). I deal ... with changes produced through external influences.

From this point of view the societies which have been the primary concern of the anthropologist so far can be described as of the peasant type. It is in the study of the impact of Western culture, in particular the Western industrial system, on non-European peasant communities that social anthropology has made one of its most striking recent contributions." (1951:87)

Not only has the impact of the industrial system been described, but many studies have also shown how semi-literate peasant economies operate with a minimal use of money. Firth's own study of Malay fishermen (1946), Nadel's illustration of the calculations on profit and income involved in the purchase of sewing machines among the Nupe (1942), and Foster's study (1948) of the peasant production and marketing of pottery in Tzintzuntzan are some striking examples of this.

Firth (1951:91) gives a bibliography and summary of works dealing with the impact of large-scale world economies on peasant communities, and little remains for me to add, except to note the recent work that has been done on similar problems in the Pacific. Thus Belshaw (1954) outlines the social and economic changes which have taken place in the Solomon Islands, New Caledonia, and the New Hebrides. His later (1955) work discusses in detail how one peasant community initiated enterprises on a scale impossible in the indigenous social organisation. Stanner (1953) gives an analysis of the post-war social and economic problems

of New Guinea, Fiji, and Western Samoa, taking the anthropological material and considering, not so much the impact of western economics on the native societies, but rather the way in which western economic and political concepts must be modified when they are applied to native societies.

After this brief historical summary of the main trends in the field of primitive economics, we are now in a position to consider what general body of theory has emerged. Firth (1939:28) stated the goal of the primitive economist, as being that he

"may hope, ultimately, in a modest way to add something to the content of economic science, if not by an elaboration of deductive arguments, at least by the translation of the formal principles of analysis into a system of generalisations which will be capable of explaining and predicting economic behaviour in societies other than our own".

How far have primitive economists succeeded in this?

The early writers, as has been said, were little concerned with applying or extending formal economic theory. Durkheim was a notable exception when he tried to find a general cause for economic specialisation without taking the pursuit of maximum satisfaction as axiomatic. His explanation of increasing specialisation and increasing material wealth as the consequences of a desire to increase the "social density" of society remains a statement of dogma, however, since it talks of a single causal relationship. It does point to the functional relationship of the three phenomena, and the concepts involved still remain basic to all subsequent anthropological work on economic organisation.

What is of value in other evolutionary studies of primitive economics is best treated in Forde's (1934) Habitat, Economy and Society.

Here the technological differences noted by the evolutionists are considered, not as historical, developmental stages, but as adaptations to a physical and social environment.

Two trends are apparent in works attempting to relate primitive economies with the theoretical concepts of orthodox economics. The first trend is that of isolating concepts present in primitive societies and showing how these concepts relate to those used in western economic analysis. The second is the broadening and re-defining of orthodox concepts in such a way as to make them applicable to non-monetary or simple economies.

The first trend is illustrated almost exclusively by the work of Marcel Mauss. Malinowski in his description of Trobriand trade had pointed to the lack of obvious utilitarianism in the kula ceremonial exchanges, to the principle of reciprocity which underlay the gift-giving, and to the way in which prestige was obtained by giving away wealth, rather than by the possession of it. On the basis of these findings Mauss (1924) erected a theory of the obligations implicit in all gift-giving and exchange. His theory received some discredit because of the evolutionary framework in which it is stated, but the concepts of reciprocity and of the obligations involved in gift-giving have recently gained wider acceptance in fields other than primitive economics (c.f. Levi-Strauss 1951, Homans & Schneider 1955).

The second trend, that of broadening orthodox concepts is one in which sociologists, notably Max Weber, have also participated. His Wirtschaft und Gesellschaft appeared in 1925 (trans. as Weber 1947), three years after Malinowski's work, although the writing of both must have been contemporaneous.

Some of Weber's definitions are especially relevant to the present study. Thus, for him, the term exchange refers to (p. 170) "every case of a formally voluntary agreement involving the offer of any sort of present, continuing or future utility, in exchange for utilities of any sort in return". A "medium of exchange" is then re-defined as "objects offered in exchange and typically accepted (because) .. the recipients estimate they will .. be able to offer (them) in another exchange to procure goods .. regardless of whether (they) are exchangeable for all other goods". The purchasing power of a medium of exchange is the probability of its being accepted at a given rate. Means of payment are differentiated as being objects which are accepted in payment of obligations.

With these definitions, Weber then considers the effects in both primitive and ancient societies of the widespread use of money. He finds that it gives rise to "indirect exchange" and "a tremendous extension of the area of possible exchange relationships"; to hoarding against demands for future use; to what he calls "the quantitative individuation of consumption needs", or the possibility of the individual making balanced and varied choices of which particular needs he will satisfy; and hence to a rise in valuation of goods in terms of money, rather than in terms of immediate utility.

He deals with the regulation of markets. He defines capital (p. 192) as "the sum of money in terms of which the means of profit making .. are valued. Profit, and correspondingly loss, is the

difference between the valuations as revealed by the initial balance, and that drawn at the conclusion of the period". Other concepts which he defines more broadly include "costs", when he says (p. 162)

"consideration of costs .. always takes the form of asking what would be the effect on the satisfaction of other wants, if this particular means were not used for their satisfaction"

He distinguishes between budgetary and productive units, saying that the former are always oriented to the distribution of goods for consumption, and the second are oriented to profit-making.

Thurnwald (1932) also broadens the definition of capital. For him capital comprises

"commodities which, by their own inherent nature, can not only maintain themselves, but increase themselves .. (and not merely) the abstract money-values to which we are in the habit of restricting the term. (p. 109)

In primitive society capital "occurs in two main forms; capital in plants and capital in domestic animals." On this basis he then says (p. 285) that "saving is of minor importance in the less advanced economic systems, since the accumulation of symbols of value is of importance only for the chief".

Following the many early attempts to trace the origin of money, the definition of what constitutes money has been the subject of much anthropological controversy. Malinowski stated that Trobriand kula valuables were not money, while Mauss claimed they were, since they are sometimes used to purchase goods and services. Einzig, an economist, tried to specify the criteria which must be present before a medium of exchange becomes money (1949). Herskovits concludes that

"in order to achieve a synthesis of economic theory and ethnological fact, therefore, we shall accept as money any kind of least common denominator of value, whether it be of metal, shell, stone or other material or indeed even if it is itself a consumption good, so long as it is regarded as part of a system of graded equivalents, and is used in payment for goods and services" (1952:245)

As Belshaw points out, the controversy over the definition of money has become sterile.

"What is required is an analysis of the fulfillment of certain functions in society...What are the media of exchange, how is purchasing power determined, what are the standards of exchange value, what are the most liquid commodities, and what are the least?" (1954:13)

In short, the interest of primitive economists has moved away from the mere broadening of existing economic concepts, towards the study of the concepts implicit in primitive economies as these throw light on economic theory in general.

Firth (1939) added many definitions for the primitive economist.

Thus elasticity is (p. 35)

"The varying response of demand to a situation of actual or potential increase of supply, and not to a fall in price accompanying such an increase".

The term entrepreneur (p. 134)

"must be taken in its simplest sense of the person primarily responsible for an undertaking, and not intended to imply propositions about risk-taking or profit reception"

The economic value of a good (p. 336)

"is taken in the more general sense as the amount of that thing that can be got in exchange for another, having regard to circumstances of time and place. .. A concept which may help .. is that of equivalence. In a community where actual exchange of items .. against each other may never take place .. goods are related to one another by a process of tacit comparison, in which measurement is given by the possibility of substitution and not by actual transfer against one another".

He attempts to distinguish between producer's and consumer's goods,

but finds that most goods (p. 237) have "fluidity of function", and "the result is that the resources of an individual are not easily immobilized". In effect he finds that a functional classification of commodities must be in terms of the degree of immobilization -- or the degree of liquidity, as economists (c.f. Belshaw 1954:14) commonly call it -- rather than in terms of any arbitrary criteria. "Immobilization" occurs when resources are not used by the entrepreneur for immediate consumption "but are used to meet any changes in the productive situation" (p. 272). When this happens -- and Firth is mainly concerned with stocks of food kept to "pay" workers building canoes -- the resources can be classed as capital. More specifically, they form liquid capital, or "goods used to initiate production, and repay the participants in the process" (p. 305); fixed capital consists of canoes and other similar articles. Such capital is accumulated in Tikopia "by surplus production over immediate requirements, rather than by any abstinence per se" (p. 274).

On the basis of these definitions, and of his illustrative material Firth relates the differences between primitive and Western economies to the absence in the former of a price mechanism (p. 7), and to the associated presence of an imperfect market "in which there is an absence of any constant flow of all kinds of goods and services through, and a lack of impartial choice in the selection of producers and consumers" (p. 313) Primitive economies, or as he later calls them, peasant economies (Firth 1951:88) constitute small-scale productive organizations "built upon a use of, or close relation to, primary resources

(and they have) concomitant systems of capital accumulation and indebtedness, of marketing and distribution" (1951:88)

Firth sums up his views on primitive economics as follows:

"Three postulates are taken by an economist; .. that economic activity consists in the application of scarce means to alternative ends; that this application is governed by principles of rational choice; and that the aim of all individuals engaged in economic activity is to maximise their satisfactions" (1939:356)

In his study of primitive economies the anthropologist must be aware that different systems of values underlie the choices made. He must analyse those underlying values, and show, for example, that seemingly irrational activity

"may be considered as part of a rational economic (system of) choice, if a preference for other types of advantage or satisfaction than the increase of wealth, be regarded as legitimate, in view of the value of securing and maintaining social co-operation".

The values underlying economic activity in both western and primitive communities have been objects of study for economic sociologists as well as primitive economists. Herskovits remarks of primitive economies that

"the values involved in non-economic (sic) forms of exchange are prestige values, while trade is concerned with the transfer of goods whose principal value derives from their utility in meeting demands of everyday existence (1952:181).

Parsons (1937), a sociologist, following both Weber and Pareto analyses the value premises implicit in western economics, and shows that many propositions of orthodox economics are limited in their scope to western societies, since the propositions depend for their validity on the underlying value premises. Nadel (1942) provides a somewhat similar analysis of Nupe economics, and has been followed by Bohannan (1955) in his study of the Tiv. Nadel's analysis extends also to a concept of "economic balance" (p. 339) or the relationship between "costs" and the amount of

satisfactions provided by the economy, as these are judged in terms of the accompanying value system. Belshaw, in his analysis of economic change in Eastern Melanesia (1954), is concerned largely with value changes, which he terms "alterations in preferences". The study of economic value is a prime focus of primitive economic theory.

B

The present problem

Basically the present study is a description of another non-monetary economy -- that of the Siane tribes of the New Guinea Highlands, --, tracing the changes which have occurred in that economy during the 20 years since steel tools first began to be known.⁰ This period has covered 12 years when European goods were traded in but no direct contacts made, four years of limited contact with patrols, and four years during which money and indentured labour have become commonplace.

In describing this economy and its changes the work of previous primitive economists and the theoretical contributions summarised in this chapter have been taken for granted. The description has been aimed at the orthodox economist rather than at the general anthropologist, and an attempt has been made to quantify the material gained from the observation of economic activity in a non-monetary society. As a result, concepts which orthodox economists do not usually apply to non-monetary situations are shown to be appropriate to primitive societies.

Among the concepts treated in this way is that of capital. I try

 0. The fieldwork on which this study is based was done between November, 1952, and November, 1953. Except where the anthropological present tense is used in reconstructions of pre-contact life, the present tense must be taken as referring to this period.

to show that a definition of capital including the elements of 'profit-making' or 'increase' (c.f. Weber and Thurnwald), and immobilisation from consumption use (c.f. Firth) enables one to follow changes in capital investment and replacement, even when there is no monetary accounting in the society. It also becomes possible to consider rates of investment relative to national income, and relative to the total capitalisation of the society. The assumption by economists that an increase in the productivity of capital leads directly to an increase in standards of living is then challenged.

Turning to the economic values of the society, I show that there are at least four disparate values underlying the transactions occurring in Siame society. I try to show that these same values are empirically separable in many primitive economies, and are analytically distinguishable in Western society. In Siame the different values are associated with markedly different types of consumer behaviour; it is suggested that many anomalies in the orthodox economic theory of demand are explicable if the existence of disparate values is predicated.

Economic change in this society is then treated as a working out of the principles which underlie the pre-contact economy. Previously environmental factors -- the lack of steel, and the small supply of "valuables" -- had limited the development of the native economy. Change came when the limitations were removed and a process of autonomous development occurred, rather than as a result of "the impact of Western culture, in particular the Western industrial system" (Firth 1951:87).

For example, this approach to the description of change permits me to show how certain objects (termed "valuables") were only used in obtaining satisfaction in terms of one value -- power. Money had many of the same physical attributes as valuables had, and was quickly adopted as an additional commodity in the economy dealing with power.^{1a} Change came when money was found to have attributes possessed by goods giving satisfaction in terms of the values of luxury and subsistence. It is because of this that the economic subsystems dealing with power, luxury and subsistence have tended to fuse, and the whole economic system has tended to become more "economically rational", as Weber has observed that other monetary economies tend to do.

Finally I try to show that economic development in Siane on both the macrocosmic and microcosmic level, followed a consistent sequence in the development of its economic subsystems. The removal of the environmental restrictions on the economy resulted in little change in the subsistence system, but in a great increase in economic activity dealing with power. When the power subsystem reached a form of equilibrium, there came an expansion in the economic subsystem dealing with luxuries. As the society stabilised the consumption of luxuries as "normal", there came an increase in new capital investment. With the completion of this stabilisation, a change had been effected in the level of the subsistence system. Each level of the subsistence system is what is commonly called a "standard of living"; in Siane I show that the standard of living does not rise smoothly, but step-wise, as activity in the other economic subsystems does. It is suggested that

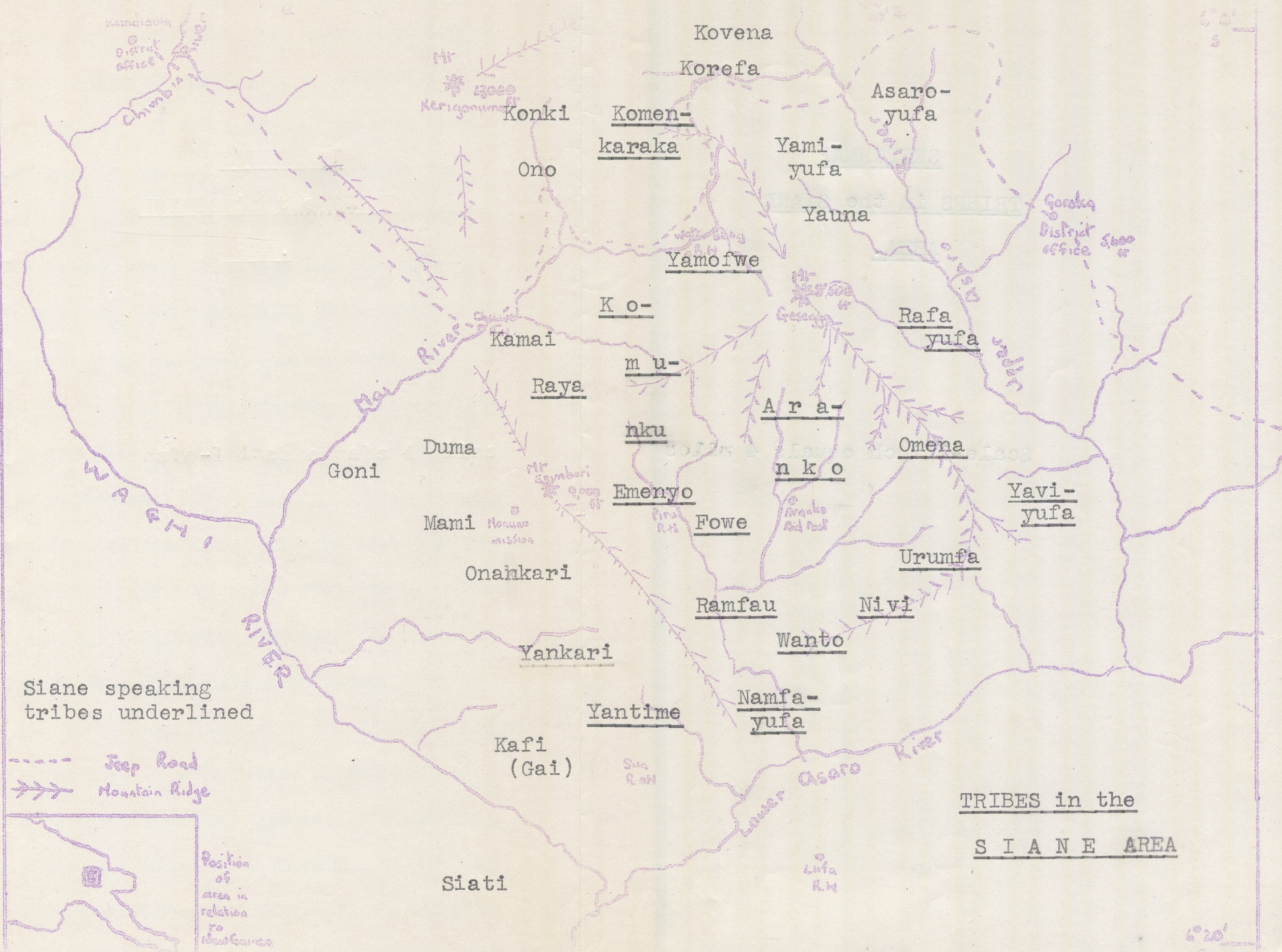
 1a. This imprecise characterisation will be made more precise later. For a definition of "power" as used here see pp. 289-290.

the Siane sequence of economic change is common to many societies, and that it could be most easily detected by following the shifts in type of goods consumed by a society.

In short, this description of a native economy and its changes is aimed primarily at economists. It is an attempt to show that concepts implicit in primitive economies, which are often explicitly recognised by natives, can be used to give a coherent explanation of phenomena which appear anomalous to orthodox economists. It is suggested that the concepts might be of use to economists in the explanation of phenomena in Western society. It is a small attempt to repay the debt which is owed to orthodox economics, whose concepts have for so long been borrowed, used, and misused by primitive economists.

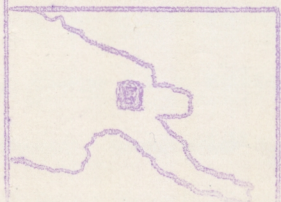
SKETCHMAP
TRIBES in the SIANE
AREA.

Scale-1 inch equals 4 miles



Siane speaking tribes underlined

--- Jeep Road
 >>> Mountain Ridge



Position of area in relation to surroundings

TRIBES in the
S I A N E AREA

Siati

620

Chapter 2

Siane Environment and Social Organisation

The Siane, whose economy I wish to analyse, are a group of tribes inhabiting the Western census division of the Goroka sub-district of the Eastern Highlands of the Territory of New Guinea. The area they inhabit lies between the meridians of 145.10' and 145.20' East, and between the parallels of 6.0' and 6.20' South (see map). In general these people have no name for themselves as a whole, but the term 'Siane' has been used for them by the Administration, since this is the characteristic form of greeting in the area. As a result, the natives are beginning to use the term to differentiate themselves from their neighbours -- Gahuku to the east, Bomai to the south, Chimbu to the west, and Sinesine to the northwest.¹

Geographically the area in which the Siane live is well-defined. To the west there is a clear boundary of a mountain scarp on the other side of which live the linguistically different Chimbuses. To the east and south there is a boundary of uninhabited mountain slopes covered with tall kunai-grass. To the north and northeast the mountains become higher and covered with dripping moss forest, making a geographical divide. Culturally there is no sharp boundary between the Siane and their neighbours. Instead there is a cultural continuum from the far northeast to the far southwest, over-riding the geographical and linguistic boundaries. The differences between neighbouring villages are imperceptible. Nor are there any large native political units to give unity to the area.

1. See Read 1954 for an outline of these other groups.

Out of this amorphous collection of villages, I have selected as a unit for study the linguistic group using the greeting "Siane", which lives in a geographically well-defined area, which has boundaries that are recognised in some way by the Administration, which has a culture which is common throughout the area, and which is now, albeit as a result of government measures, feeling some degree of group entity, in opposition to other groups of a similar order.

The main geological features of the area are the steeply tilted limestone slope to the west, whose scarp of several thousand feet of sheer cliff culminates in Mt. Erimbari and faces west; the extinct volcano of Mt. Kerigonuma to the north surrounded by its twisted valley system, its conglomerates, cliffs and gorges; and the fan of razor-backed eroded sandstone ridges which forms the bulk of the area. Round the southern edges of Mt. Kerigonuma runs the deep valley of the Mai River -- the only river draining westward. The fan of ridges to the south run mainly north-south and are steepest on their eastern side. East-west travel is thus difficult, but to the west near the tilted slope of Mt. Erimbari the steepness of the ridges decreases. The rivers draining between the ridges join, and flow south into the Asaro River, just above its confluence with the Waghi. The easternmost ridge forms a wall, on the other side of which are precipitous kunai-grass slopes, and then the 20 miles of the Goroka Plain.

The impression of the area one receives on first arrival is of a confusion of razor-backed ridges. Except to the south where the ridges come close together and are kunai-clad, everywhere is forested. Even the summit of Mt. Erimbari at 9,000 feet has its dense, dark-green moss

forest. But below about 7,000 feet this dark-green is replaced by the greyish-green of casuarinas interspersed with smaller bushes and cleared areas. On arrival too, one sees that what appeared to be gentle slopes from the air, are, in fact, precipitous. The journey to the next ridge, half a mile distant, proves to be a descent of 500 feet, and then a similar climb up on the other side, on a gradient that is rarely as easy as one in five. Travel can be only on foot, and the difficulties are enough to deter anyone.

But if travel is difficult, the climate is ideal. Throughout the year there is little change in temperature -- 80 degrees by day and 50 by night are limits that are rarely exceeded.² The prevailing wind is south, varying between southeast and southwest. It is mainly calm, but sudden violent, chilling squalls occur. Most remarkable is the consistency of the rainfall. Less rain falls from June to September than falls in the months from December to March, but there is rarely a day without rain in the evening, and over 100 inches fall during the year. Almost every day starts with mist rising from the valleys where it has settled at night, and with the sky overhead clear. By midafternoon the clouds have built up, and in the evening it rains. If it is still clear at night, it is cold; if it is cloudy and damp it is warm. From December to March the day may well be dull and drizzly, but for the rest of the year one can expect the weather to be perfect.

The people who inhabit this 180 square miles of ridges, forested slopes, and abrupt valley bottoms, number some 15,000. The overall

 2. The absolute extremes in my house at 6,200 feet were 100 and 40 degrees.

population density is thus about 80 persons per square mile; the birth-rate, genealogies, and the age-sex composition of the population would suggest that this density is stable.

The villages in which most people live are not immediately visible to the untrained observer. They are hidden by tell-tale clumps of bamboos, casuarinas and banana trees stretching along the minor ridges below the lower limit of the moss-forest. Each village consists of a 'street' of about 50 low-walled huts, with roughly conical thatched roofs, each separated from its neighbours by a small fence. In these houses, which flank both sides of the street, sleep the women and children. At intervals the street is barred by a strong fence, and a small, badly-kept path leads round a fenced enclosure in which stands a large oval-shaped house. These houses, which may be as much as 30 yards long and 20 feet high in the centre, are men's houses. Inside them sleep the men, and boys who have been initiated. In front of them are clearings which form the centres of village social life.

An average village stretches some 500 yards along the ridge, and contains three, or possibly four, men's houses. It houses a population of about 200 men, women and children. Two miles away along the same ridge is the nearest village, while two miles away on parallel ridges are other villages. This is the typical picture; in practice many villages are closer together; others are further apart.

The area between villages is not completely deserted, even at night, for most men build 'pig houses' there. These houses are the same size as women's houses in the villages, but are built close

to the gardens, so that the women who live in them can conveniently tend the crops and look after the pigs which forage freely in the uncultivated bush, or fallow land. But while everyone does not sleep in the village every night, every member of the village group does have a house in the village, and 70% of the village members sleep there on any average night. The settlement pattern changes as the tri-ennial Pig Feast approaches, for at that time all houses in the village are rebuilt and all members of the group congregate there. After the feast is over there is a steady drift out from the villages to the 'pig-houses' until a fluctuating balance of 70%-30%, town-versus-country residents is reached once more. The settlement pattern is thus one of nucleated villages, with a tendency to periodic dispersal into isolated homesteads, though this tendency never becomes dominant.

The obvious residential group of the village is also a significant social group, comprising, typically, one patrilineal patrilocal clan,^{2a} together with its wives and minus its adult daughters who marry out into other villages. But there are other larger, but less obvious, residential groups which also have definite social significance.

The whole assemblage of people, whom I have called Siane, and who live in a well-defined area, never act together as a social group. It is only a recent phenomenon that they have begun to differentiate themselves from other assemblages of people, equally large and amorphous, and to have some feeling of group entity.

 2a. Except where specifically noted, my use of terms follows that recommended in "Notes and Queries" (RAI 1951).

The largest unit normally recognised by the natives is the tribe. There are 16 tribes in the area, each of which is composed of from two to nine clans. They vary in size between 400 and 2,000 individuals. The tribe occupies a continuous stretch of territory since its constituent clans live in neighbouring villages. In fact, membership in a tribe is defined more by residence on the land of that tribe, than by kinship for there are many clans called by a particular tribal name although they can give no genealogical validation for membership in that tribe, and they cannot claim creation by the mythical tribal ancestor who emerged from a hole in the tribal land. These clans may, in fact, be recognised as kin by other tribes, from whose territory they migrated. The tribe is thus a group possessing a common name (though there is no native term for "tribe"), living on a particular territory and having certain rights over that territory. It is also a kinship unit, in that kinship terms can be used to describe all members of one's own tribe. But they are rarely so used, unless one wishes to emphasise one's nearness to a tribal 'brother' as opposed to one's distance from a member of another tribe. This extended use of kinship terms is usually validated by claiming descent from the mythical tribal ancestor, who created the original clans of the tribe, but the kinship may be purely fictitious as is the case with immigrant clans.

If the tribe is small -- and this is usually the case when there has been no immigration -- it coincides with the group within which marriage is prohibited. Two or three clans, living in neighbouring villages make up such a group, but they have no common name except the

tribal one. There is a native term -- nenta wenena³ or 'close people' -- to describe such a group, and in the larger tribes there may be two or three such groups of non-intermarrying clans. The group has other functions besides the regulation of marriage. Within it all warfare is forbidden, although fighting with non-lethal weapons such as clubs is common when disputes need settling. "Warfare" which can result in death and which is forbidden is called rowa by the natives, while "fighting" which is non-lethal and permitted is termed fine. But the group of 'close people' does not combine together to wage war. However, if one clan is involved in a war against outsiders, it can be sure of the neutrality of the 'close' clans. In the great religious ceremony every three years -- the Yafu Koiya or Pig Feast -- the clans of the nenta wenena group co-ordinate their ceremonies to honour the ancestors, and perform special dances which emphasise their 'brotherhood'. The occasion thus stresses the kin ties of the group, while also being the one occasion when groups larger than the clan combine for united action. As I have said, the nenta wenena group sometimes forms a while tribe, in which case it is a tribe which combines for the religious ceremony, and which prohibits in-group marriage and warfare. o ?

The clan is normally the largest effective unit in Siane society. As has been said, it is a residential group, occupying one village and comprising about 200 individuals. It is an exogamous group within which marriage is forbidden; it is a kinship group, where everyone uses either kinship terms or personal names for everyone else;⁴ it has a clan name.

-
3. The spelling of native terms is phonemic, and is described in Salisbury 1956c.
 4. As distinct from the use of clan names, as is possible within the tribe, where members of other clans may be called, for example, "man of Roanti clan".

There is, however, no native term for 'clan' as such. When one wishes to refer collectively to all the members of the clan, one uses its proper name -- one says "Waifo are killing pigs" to denote that the men of Waifo clan are preparing for a ceremony. When one refers to the area occupied by a particular clan, one uses the word numuna or "house"; thus one says "I am going to Waifo house". To express the idea of clanship, the phrase "we rako" or 'one man' can be used in certain contexts; thus "Fanti and I are one man", means we are clansmates.

All men belong by birth to the clan of their fathers, and this normally means they belong in the village where they live. The clan of the mother does have some claim to a child, but this claim is liquidated by a series of payments made by the father's clan. On the other hand, if a mother deserts to a different village, taking her children with her, there is a conflict of claims between the clan of the father and the village of residence. Again, if a man takes up residence with his wife's clan at marriage, there is a similar conflict. Such exceptions to the rule of descent and locality are few, and for one clan comprised 2% of all residents. There is a tendency for such people to be absorbed into membership of the clan with which they live, but this does not vitiate the general statement that clan membership is defined by birth.

The clan is the unit in the blood-feuding which follows a death. All members of the clan of a dead man combine to exact vengeance, while the death of any member of the killer's clan is felt to wipe out the debt. The clan is the normal unit for religious ceremonies; in the

Pig Feast it performs its own ceremonial, but co-ordinates the performance with other clans of the nenta wenena group; at other times it performs religious ceremonies independently, although representatives of "brother" clans may attend; in rites of passage, although the main body of participants is the immediate kin of the principals, representatives of all sections of the clan participate. For work the clan also combines and acts as a unit; in such tasks as working for the Government on road-building the whole clan assists, while representatives of all sections of the clan attend the rebuilding of any man's house, even though the major portion of the work is performed by residents of that house.

The clan-village is divided into smaller residential segments or "wards", each of which centres round a man's house, or hovanum. The men's houses, with their associated clearings, tanket bushes, bamboos, trees and thick fences, are situated some 100 yards apart along the ridge. About 12 or 15 women's houses or wena numuna belong to the wives of the men who live in the hovanum, and these houses line the street on either side of the men's house. There is, however, no marked boundary separating wards, and women's houses attached to one men's house may be attached surrounded by houses/ to the next men's house. Each of these wards or men's house groups is composed of about 30 males over ten years old, 23 married women, and 18 unmarried girls and young boys.

Boys normally go to live in the men's house of their fathers, when they are initiated between the ages of seven and ten. They may go to

a different house, to live with friends or to obviate overcrowding, but they normally live with their fathers. This means that the men's house is usually a kinship group. The residential basis of the grouping is, however, brought out by the native usage of calling the members of the group by the name of the plot of ground on which the house is built. Thus, to say "Maunori is building a new hovanum" means "The men who live on the plot of ground called Maunori are building themselves a new house". If they build on a different plot of ground they lose the name of Maunori. The term hovanum is not used to describe the membership of the group.

Another method of referring to the membership of the group indicates another organising focus of the men's house. This method is to call the group by the name of the most important man in it, and then to add on the collective suffix -kere. In this way Kaumfa-kere means "Kaumfa and his men" and refers to the men's house of which Kaumfa is the most important man. This usage also emphasises the fact that personal preference can affect an individual's place of residence. If a man decides that Kaumfa is a better leader than Yofantena, or that he has built a more waterproof house, he can always take up residence in Kaumfa's house, instead of in Yofantena's where his father lived.

Counteracting this potential division of the men's house is the tie between boys who are initiated at the same time. Four or five boys are initiated as a group every three years. They are of almost

the same age, they have grown up together, they remain living together throughout their lives, as bosom friends, and they refer to each other by a special term koinanefo -- "my age mate" -- which closely resembles the term for brother. In many ceremonies age-mates are considered socially identical (in the sense in which Evans-Pritchard 1940:7 uses the term "social identity"), and an age-mate is a first choice as the 'leviratic' inheritor of a widow.

The men's house group can be observed as a discrete social unit in disputes, where all members of one men's house stand on one side of a clearing, opposed to all members of another men's house on the other side; in rites of passage when all members of the group attend; in work situations, when the clearing of large gardens is carried out by men's house groups, each clearing a different area, although the work of different groups may be synchronised throughout the clan; in the consumption of food, when all men present in the men's house clearing give portions to all other members who are present. Within the men's house no disputes remain unsettled, although there are no organised sanctions for enforcing settlement. It is so uncomfortable to live under the same roof with someone with whom one has an unsettled dispute, that one either comes to a settlement or moves to a different men's house and continues the hostility from there. The men's house group also tends to have rights in common over certain areas of territory, as do the clan and the tribe. However, these common rights largely derive from the rights which individual members have over areas of land which adjoin one another. It is only when the plots are

contiguous that one can speak of rights vested in the men's house.

But this topic will be treated later at greater length.

There is a smaller size of grouping than that of the men's house, for which there is no native term,⁵ and which has no proper name. This group can be isolated by the observer as soon as he starts to collect material on kinship, land tenure and inheritance, and, although it has no traceable common ancestor, I propose to use the term "lineage"⁶ to describe it, since it bears many resemblances to the groups described in African Societies (c.f. the definition in Royal Anthropological Institute 1951:88). Within this group kinship terms are always used, and a form of genealogy relates all members; there is always one member of each generation who is referred to as "eldest brother", in whom are vested the lineage rights to property. The lineage is associated with one particular pair of the sacred flutes, which are played in the major religious ceremonies; it has one traditional design representing the souls of dead members of the lineage, and this design, painted on boards called gerua must be carried in the clan dance at the Pig Feast; it has the right to repeat certain traditional monitory speeches when everyone is assembled round the fire in the men's house during the evening. Since it is the "eldest brother" of the paternal generation who exercises these rights, it will be seen that his position is crucial to the organisation of the lineage, just as his existence defines the grouping.

5. Among the Gahuku-Gama to the East a similar grouping is called a dzuha. c.f. Read K.E. (1951:154)

6. For a fuller discussion of Siane lineages see Salisbury 1956a.

The rights and duties of his office will be discussed later, as will the mode of succession to it.

The lineage, although not explicitly recognised in native terminology, is an important economic unit. It is the work group for building women's houses, or for clearing lineage land; the wives of lineage members live near one another and co-operate in preparing food for their menfolk. It is not a residential group, since its male members sleep in various sections of the men's house, and its women's houses are not contiguous. Normally there will be about five such groups in a men's house, each with one old man, four married adults and two unmarried youths. They will support two old women, four wives and five children.

The elementary family hardly functions as a unit in Siane. Men and women live apart, and husbands only visit their wives at night. Wives cook food outside their houses and eat with the young children, while the men and adolescent boys eat what is brought to them in the men's house clearing, their wives waiting outside in the meanwhile. The division of labour is such that a man rarely works in the same garden in which his wife is working; men work with men, while women work with women. After a relatively short period when young children are looked after exclusively by their mother, and when they visit their father for fondling and affection, the training of children is entrusted to males and females generally, rather than to the elementary families. As soon as boys are old enough to talk and to understand, they are toilet-trained by being told what to do by their father and by older boys; when they are ceremonially weaned between the ages of three and six, they are also

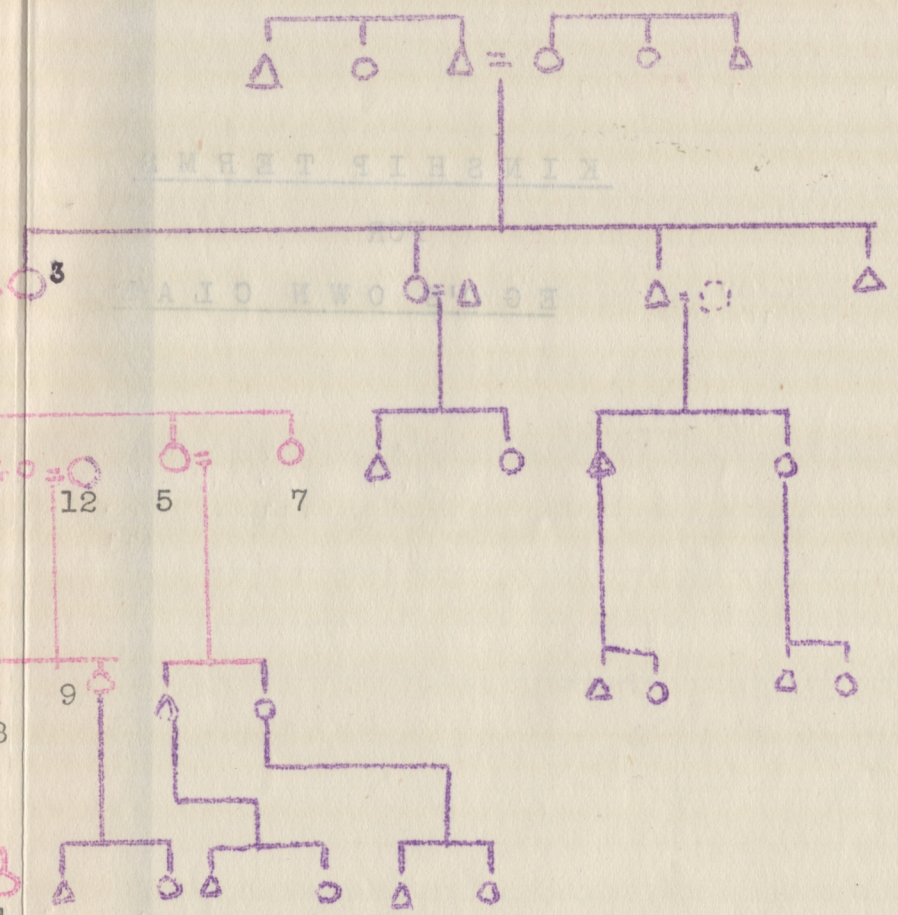
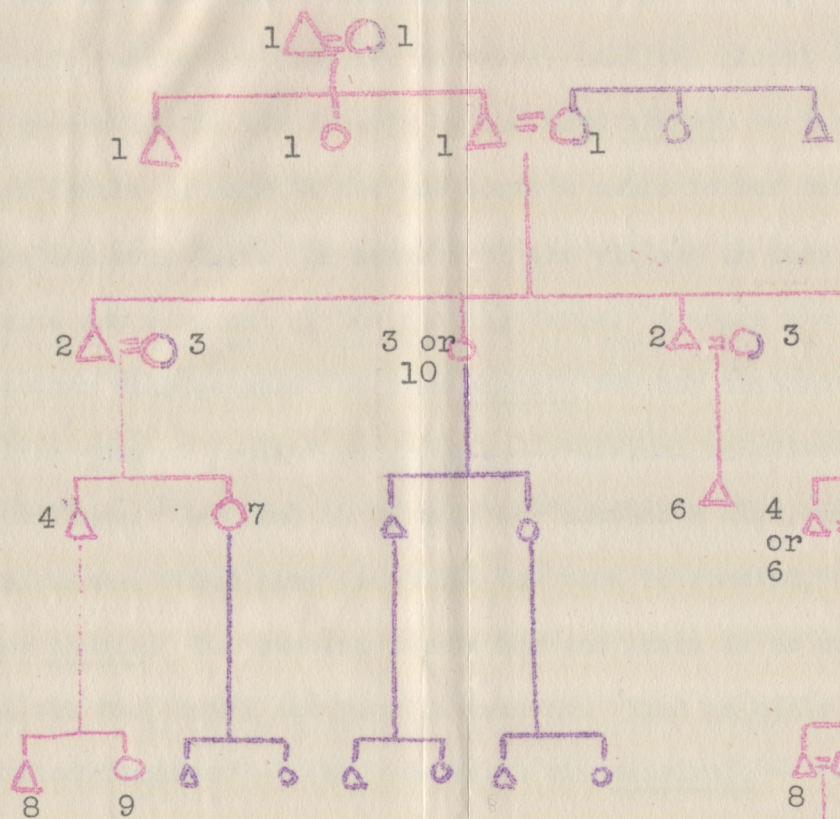
weaned emotionally from their mothers, and henceforward their principal companions are other boys. The general lack of importance of the elementary family does not mean there are no bonds of affection between spouses and their children. In individual cases husbands may work with wives, and out of 82 husbands in one village, 14 of the older ones were living with their wives in pig houses or yafo numuna, on one typical night when I made a census. As a structural grouping, however, the elementary family may be ignored.

Kinship has often been mentioned as one of the organising principles of the Siane groupings, and a brief summary of the kinship system must now be given. Within the clan-village the system is a simple one of division into generations, with some recognition being paid to seniority within the generations. All men two generations senior to Ego are called aunefo -- "my grandparent"; all men one generation senior are called menefo -- "my father"; within his own generation Ego calls the senior member of his own lineage yanefo -- "my eldest brother" -- and he calls all other males kunanefo -- "my sibling of the same sex"; all men of the first descending generation are nanefo -- "my child"; all children two generations junior are aunefo and the same term is used for grandchild as for grandparent. Relative to Ego male, all the women in the village are either the wives of an aunefo, and are also called aunefo; or the wives of menefo and are called onefo -- "my mother"; or sisters or wives of kunanefo and are called nemona -- "my sibling of opposite sex"; or are daughters or the wives of nanefo when they are called orunefo -- "my daughter". Ego female while she is

K I N S H I P T E R M S

FOR

E G O ' S O W N C L A N



- Members of Ego's clan
- Woman of other class living with Ego's clan
- Members of other clans, related to Ego by kin and not affinal ties

- Kinship terms for own clan
Ego male
- | | |
|--------------|-----------------|
| 1 - aunefo | 7 - nemona |
| 2 - menefo | 8 - nanefo |
| 3 - onefo | 9 - orunefo |
| 4 - yanefo | 10 - meranefo |
| 5 - atanefo | 11 - nitofa |
| 6 - kunanefo | 12 - oronairofo |

For Ego female the terms are the same with the exception of terms 6, 7 and 12. A woman uses term 6 for females (her own sex) and term 7 for her male siblings. She uses the term wanairofo for her spouse. Her children will be of a different clan.

unmarried and living in her own village uses the same terms as her brother does, except that to her kunanefo means her younger sister, and nemona her brother. She refers to her oldest brother by the identifying term yanefo, while she (and her brothers) call the oldest female member of her generation in the lineage by the term atanefo -- "my oldest sister". When Ego female is married and has borne a child to her husband's village, she uses the same terms for members of the village as does her husband, again with the reversal of the sibling terms. A woman who is newly married into another village uses the term ekanefo for her husband's parents, and terms like "man of X-clan", or nitofa -- "affinal relative" for other men in the village. Her name is tabu to her husband's clan, and they give her a nickname, which they use until the tabu is removed, or else they call her nitofa. Her husband avoids her and there is no communication between the two, until the tabu is removed. Then he calls her oronairofo -- "my married daughter" --, and she calls him wanairofo -- "my married man". In short, the division into generations within the village is universal, except that a newly married wife is not considered a member; her claims to membership begin when she commences cohabitation with her husband three years after marriage; she may claim full membership when she has born children.^{6a}

Seniority has already been shown to give a special kinship status to the oldest male and female of each generation of a lineage. Ego also makes a distinction between the males of his father's generation on the basis of seniority. His father's yarafo is his homu merafo -- "his first father"; the next oldest of his father's lineage brothers is his

6a. She may also claim membership in her brother's clan. Her brothers act to prevent her complete filiation with the clan of her husband (c.f. pp.32-148).

merafo ainke -- "his next, or second father"; all other lineage brothers of his father are merafo airo -- "his other fathers". Commonly he will refer to all these people as menefo -- "my fathers" -- but when pressed he will always distinguish between first, second and other fathers. When pressed he will also differentiate his biological father -- merafo hentenamo -- from his lineage fathers, but although the biological relationship is an affectionate one, it is the lineage relationship which is of importance in matters of succession or inheritance.

These distinctions of seniority within the lineage reflect the importance of the status of yarafu in each generation. He holds the title to all lineage property owned by his generation, and can decide when work is to be done on that property; he must pronounce the prescriptive speeches owned by the lineage; he makes the gerua representing the lineage's dead, and he carries it in the Pig Feast dance; he controls the valuables they need for a bride-price. On the other hand, he must protect his younger brothers and take their part in disputes; he must see that they are fed, especially when food cooked by a newly married wife is tabu to them; he is responsible for entertaining any visitors to the lineage, and he must make contributions to clan payments on behalf of the lineage; he must ensure that all members of the lineage receive adequate shares of cleared lineage land and of gifts made to the lineage. In other words he must act as a quasi-father towards his younger lineage brothers and sisters. This is shown symbolically when a sister of the lineage marries.

Her yarafo may still be only a youth, and the pigs and gifts during the ceremony will be provided by the girl's father. Nevertheless natives will always state that the gifts are given by the girl's brother, and it is indeed the youth who distributes the bride-price he receives from the groom's father; he it is who makes a small gerua representing his sister's soul, and who guards it in his house; he it is, to whom she will run if she is ill-treated by her husband.

When a yarafo dies the next oldest member of his generation becomes yarafo, and the succession passes down by age through all the lineage brothers. This continual expectation of eventually becoming yarafo, and the knowledge that the present 'oldest brother' is acting on one's own behalf are accompanied by a general lack of sibling rivalry. I found little evidence of rivalry in behaviour, and only one myth where brother killed brother, although I saw many examples of a warm, protective attitude by oldest brothers, and of a hero-worshipping dependence by younger brothers.

The head of the lineage at any one time is the yarafo of the parental generation, who is the homu merafo of the children. If this 'first father' dies, the previous 'second father' becomes head of the lineage -- a yarafo to his own generation and a homu merafo to the children. At the same time there is a rearrangement of the 'other fathers', the oldest of whom becomes 'second father' to the children. When all members of the parental generation have died or have "retired", the yarafo of the next generation becomes head of the lineage. This

does not imply much change from the quasi-parental role he has already been playing towards his younger siblings. In addition he is likely to be about the same age as the youngest member of the parental generation, so that there is no discontinuity in the lineage leadership; no case of a youth succeeding a mature old man. The yarafo's parental role also makes it easy for considerably older members of one's own generation to be accorded the status of merafo, or for members of different generations who are about the same age to refer to each other as yarafo and kunarafo. In terms of kinship 'positions' however, the lineage is always composed of a parental and a children's generation. In the parental generation there is always an 'oldest brother', who is head of the lineage and 'first father' to the children. His younger brothers are 'second father' and 'other fathers' to the children, and are potential successors to the lineage headship. In the children's generation the oldest member is distinguished as being in a quasi-parental role to the others, and is trained as the first successor to lineage headship in his generation.

In dealing with kinship terminology within the clan, I have spoken as though kin terms are used for everyone in the group without exception. It is more common to call only members of one's lineage by kinship terms, and to call other members of one's clan by their proper name, by teknonymy, or by referring to the clan of their mother. To use a kinship term in other circumstances means that one wants to put the person addressed into a particular relationship -- addressing a

clansmate as "brother" may be a prelude to a request for the use of his shirt, while to call a woman of the village "mother" prefaces a request for food. When talking to someone outside the clan, one refers to other members of one's own clan as "brothers" to signify they are closer to one than is the person spoken to, and to stress clan solidarity. This principle has already been referred to in connection with the use of kin terms within the tribe.

Every clan outside of one's exogamous group of 'close people' is composed of persons who are, in some way, in an affinal relationship. A sister of the other clan may have married into one's own clan, a father's father's sister of one's own clan may have married into the other clan, or there may simply be the possibility that marriages will occur in future -- all these are reasons why members of one clan can use the term nitofa -- "affinal relative" -- when talking to a member of another clan. The use of a kinship term means that a relationship of formal politeness exists, with obligations of hospitality on both sides, and a prohibition of active hostility. No affectionate undertones are implied, nor is there any claim to friendship; there are merely mutual obligations to refrain from hostility, and to repay later any service that is performed.

These are group relationships of affinity and they contrast with the personal ties which individuals have with other individuals, in the same way as the ties Fortes (1949) calls "clanship" contrast with the "web of kinship". Firstly the individual has ties with his mother's

relatives. Anyone who is either a 'father' or a 'mother' to Ego's mother, is his aunefo -- "grandparent". The mother's yarafo is called by a special term momonefo -- "my mother's-brother" -- and this term may be extended to refer to any clan brother of the same generation as the true momorafo, although it is not usually so used. It is more common to refer to all other members of the mother's natal clan as novonefo -- "my cross-cousin" -- regardless of their generation.

The second group of ties that an individual has are those through female members of his own clan. The sisters of Ego's father, who have married into other groups, are called meranefo -- "my father's-sister", -- but I have only heard this term used for sisters of a true father. The children of one's sister are called komonefo -- "my sister's-child" -- and this is the reciprocal of the term momonefo. It is much more widely used, however, to refer to the children of any sister of the clan who has married out. The term carries with it the implication that the person referred to is someone in whom the clan has a particular interest, someone whom the clan will protect and give gifts to, someone who could come and live with the clan and be warmly received as a member, someone towards whom one feels the warm affection that a momorafo feel for his sister's child. Where one does not wish to imply such a protective relationship, and generally when Ego is about the same age as the person referred to, the term novonefo -- "my cross-cousin" is used. This term is thus reciprocal, and the cross-cousin terminology is formally of the

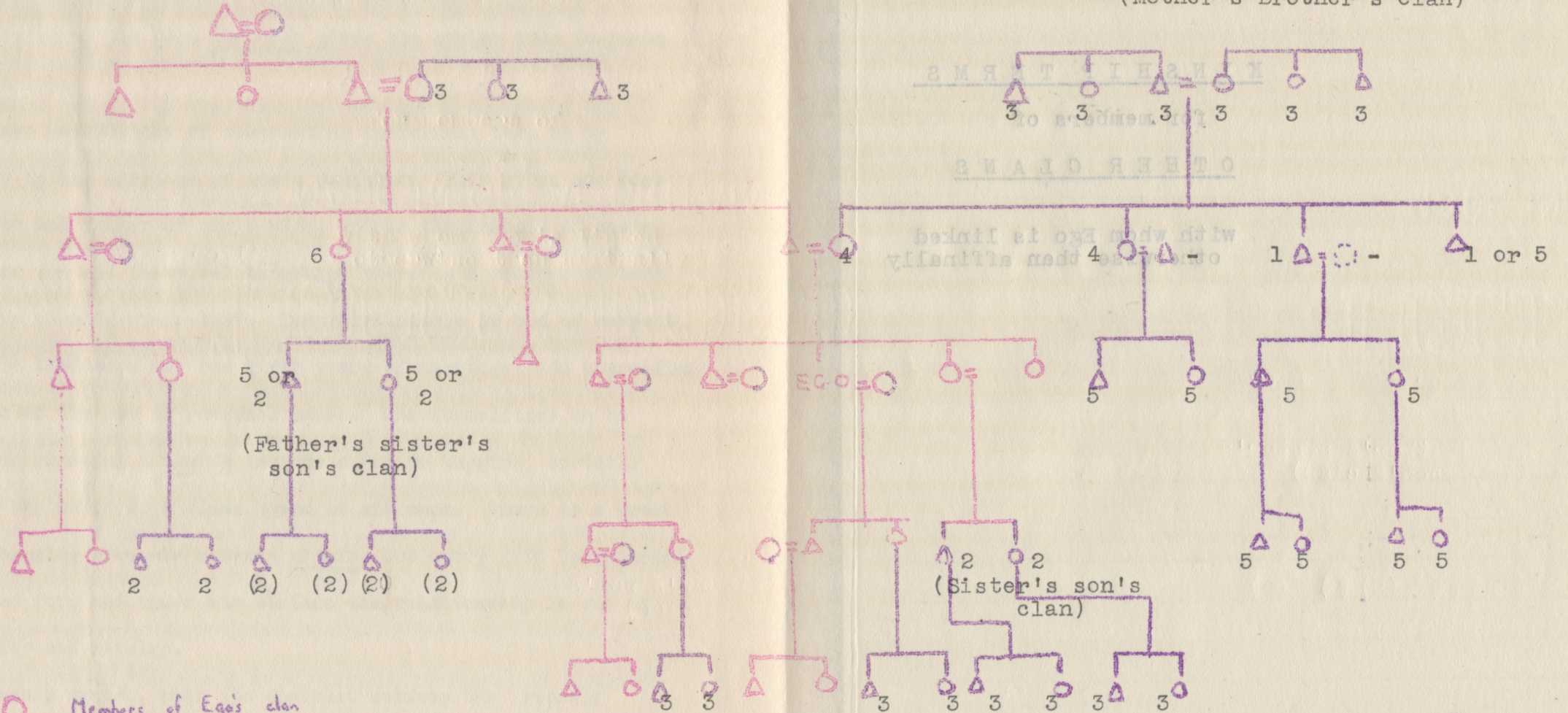
K I N S H I P T E R M S

for members of

O T H E R C L A N S

with whom Ego is linked
otherwise than affinally

(Mother's Brother's clan)



(Father's sister's son's clan)

(Sister's son's clan)

- Members of Ego's clan
- Woman of other clans living with Ego's clan
- Members of other clans, related to Ego by kin and not affinal ties

Kinship terms for members of other clans with whom Ego is linked other than affinally.

- | | |
|--------------|--------------|
| 1 - momonefo | 4 - onefo |
| 2 - komonefo | 5 - novonefo |
| 3 - aunefo | 6 - meranefo |

Iroquois type (Murdock 1949:223) although the possibility of placing all children of female members of one's clan in an inferior generation by using the term komonefo gives the system some features of the Omaha type.

The other possibility of contracting individual ties is by marriage, or by the marriage of one's daughter. This gives one ties to the mother and father of one's wife, and to the husband of one's daughter, and for all these relationships there is a reciprocal term niamfa -- "my parent/son-in-law". The relationship is one of respect, with complete avoidance for the first years of marriage, and thereafter an avoidance of the use of personal names. The formalities to be observed when greeting a niamfa include effusive hugging, ecstatic praise, and the award of a clean board to sit upon. There is a great deal of exchanging presents between niamfa, but every gift is returned and accounted for, and under the surface the relationship is one of deep hostility and rivalry.

The kinship system, with its contrast between the friendly relations with 'brothers' of one's own clan or 'close' clans, and the hostile relations with affinally related clans, mirrors the political structure of Siane society. From the point of view of any one clan, the world is divided into two parts; the one or two neighbouring clans of 'close people', and the vast number of hostile clans which surround this island of ostensible peace.⁷ All the hostile clans are possible

 7. The present tense is used throughout this section, although the coming of European control has stopped armed warfare. Otherwise little has changed except that the radius of travel is about 20 miles.

sources of brides and possible receivers of one's own sisters. At any one moment it may be expedient to be allied with some Clans and to exchange sisters with them, while one is actively fighting other clans. At any time the pattern of alliances may shift. The natives say "They are our affinal relatives; with them we fight". In this situation no person can travel far, and ten miles from one's village is the normal limit. Few people have more than a sketchy knowledge of groups further away. However, the same acephalous organisation of warring tribes and clans with no superordinate political authority continues on both sides of the Siane area. The few distant contacts which are made, confirm the Siane picture of the entire world as being composed of clan-villages, loosely linked into tribes, and each clan surrounded by enemy clans.

Any dispute between clans can result in the latent hostility becoming open warfare. Such disputes usually concern the theft or seduction of a wife, the theft of a pig (either known, or presumed because a pig is missing), the death of a man, which has been shown by divination to be due to sorcery by another clan (usually the clan of the widow, or of some other woman with whom he had sexual relations), or a homicide. The theft of a wife might be settled by discussion and by payments, as might, in some cases, the theft of a pig (especially if the guilty clan is the larger). But the only way in which other disputes can be settled is by self-help in the form of a blood feud.

Vengeance can be obtained either by the ambush and murder of a single victim belonging to the offending clan, or by a form of ceremonial warfare on cleared battle-grounds. The renowned fighters of each side come to do battle, armed with spears and huge wooden shields, while their clansmates line up at the ends of the cleared space, their bows and arrows at the ready. The 'champions' then 'joust' until one of them is caught off balance by his opponent, and is then at the mercy of the bowmen who kill him with arrows. It is rare for a war to kill more than one or two men, and after a champion has been killed, the defeated clan may flee and leave its village to be razed by the victors, while it seeks protection in exile. Wars are not usually fought for territorial gain, however.

When an offence occurs, it is counted as one 'debt' to be avenged, and a knot is tied in a length of rope -- nera wiyaiye -- as a record of it. For each new offence a knot is added, while each time one member of the offending clan is killed one offence is wiped out. I have seen the ropes of one clan, recording the offences of what was ostensibly a friendly clan. The relations between the clans had been 'frozen' by the coming of the Europeans, but the large number of knots suggested that it was common for grievances between allied clans to accumulate until, suddenly, violent warfare broke out. This was the signal for a complete re-alignment of the former pattern of alliances. To some extent these re-alignments can be traced in the changing patterns of

marriages. A large number of men aged about 40 from clan A may have taken wives from clan B, presumably while there was an alliance with that clan. But among the marriages of the clan A men aged about 30, there are hardly any with women from Clan B, but large numbers with women from clan C. Presumably the alliance had shifted to clan C, and there was fighting with clan B. The group aged about 20 may have reverted to the marriage pattern of the men aged about 40. This reversion is understandable when one considers that now there will be children aged 20, whose mothers are from clan B and are the wives of the men aged 40. Children of clan A will visit mother's-brothers in clan B, and there will be more friendship, more marriages,⁸ and more chance of an alliance. This is the background to the statement that the normal relationship between unrelated clans is hostile or openly warlike, while alliances and uneasy friendship provide an intermittent break to open warfare. Grievances against other clans can only be settled by resort to force, or the threat of it.

There is, however, a mechanism by which two clans can, without either one submitting to the other, and, without there being any externally applied force, come to a settlement when they wish to cease hostilities. This mechanism depends on the fact that, if one clan of a group of 'close people' is engaged in fighting, then the other 'close' clans remain neutral. In part this is an insurance against outright defeat, for it means that members of a defeated clan always have a

 8. These marriages do not result from a rule of matri-lateral cross-cousin marriage, but from the increased visiting. See Salisbury 1956 b.

friendly clan with whom they can take refuge. In part it means that whenever two clans are fighting, at least two other clans sit on the side-lines watching. These neutral clans do not intervene in the fighting, but they shout advice on possible ways in which the dispute might be settled. Gradually, as the desire to settle increases among the warring clans, the fighting degenerates into name-calling, and the name-calling into an impassioned but non-violent discussion. Both sides air their grievances, and eventually line up their wounded in two rows; assessors from the neutral clans walk along the rows, and estimate on which side the balance of damages lies. They then say how many pigs and valuables should be given to balance the damages that have been inflicted. I could not obtain an explicit statement of this, but figures I was given of peace-making payments suggest that the "rate" for settlement used to be one pig for one man killed. The exchange of pigs is followed by a feast, and the two sides (literally) shake hands. Discussion about a stolen wife rarely reaches the stage of bloodshed, but the same sequence of violent abuse, mediation by neutral parties, eventual discussion of payments, and a final settlement where both sides "give presents" to the other, is customary. Neither side admits having done wrong and neither side acknowledges the other is right.

In the discussion of inter-clan relations I have treated each clan as though it were a corporate unit whole, in which individuals did not matter. This is, in fact, largely true, and native idiom even treats tribes as corporate wholes, when they do notⁱⁿ/practice

operate as such. Thus, if a boy of Ramfau tribe, Nematene clan marries a girl of Emenyo tribe, Winyo clan, the marriage is described as between "Ramfau tribe and a sister of Emenyo tribe" -- a relationship between tribes. Questioning will soon elicit the names of the clans involved, but the affair is still described as between clans, rather than between individuals. Winyo clan enters the village of Nematene clan in procession as one unit, and is met in the principal men's house clearing by a body of men from all sections of Nematene clan. Admittedly, the bride heads the procession, but she is closely followed by one "big man"⁹ who represents the whole clan. The receiving clan is also headed by a "big man". When the two clans are assembled facing one another, their representatives make speeches, after which the one from the bride's clan gives her to his opposite number, together with the presents the bride's clan have brought. When the visitors have been feasted, the groom's clan gives return presents, handed over by the single representative "big man". In theory the bride's clan know nothing about the groom, except that he is a member of his clan, while the groom's clan are ignorant of the bride's parentage. Neither side is supposed to know about the negotiations conducted within the other clan to collect the pigs and valuables, which are given as presents or as bride-price. Neither side is concerned with the distribution of pigs and valuables, when once they have been presented.

9. What is meant by this term will be explained more fully below.

All the outsider learns is that "Emenyo tribe gave presents to Ramfau tribe; Ramfau returned the presents". It is a relationship between corporate groups, and the relationship is phrased as being between the largest units of grouping, whose segments are involved in the specific situation.

The external political structure is thus one of the opposition of corporate groups which appear internally undifferentiated. The internal political structure consists in the relationships between the various segments within the clan, which have already been outlined, and also in the way in which authority is exercised within the clan. To understand this structure, it is necessary to consider what is meant by the term "big man", or we namfa.

A "big man" is a good orator, an adult man with children, is moderately industrious and wealthy, and is often the 'oldest brother' of a lineage, while in pre-contact times he was also a good warrior. There are six or seven such men in any men's house, and they discuss the performance of ceremonials, the making of new gardens, the contributions to and the disposal of any payments which are made or received. They pronounce the prescriptive speeches. None of them has any right to command any other, or to force the acceptance of his suggestions when a discussion is in progress -- they are all equals. One of their number, however, acts as the figure-head of the men's house; if there is a dispute with another men's house he is the spokesman; if there is pork to be distributed in the men's house, he calls out the names of the recipients and holds up the

meat for them to collect. In whatever he does, he normally receives the enthusiastic support of all members of the men's house, for the performance he gives reflects to the credit of the group as a whole, and only when the group is behind him, can he perform at his best. And he is sure he is doing what the group wishes, because his actions are the result of long discussions in the men's house, during which he has heard the opinions of all the "big men".

The figurehead plays a large part in the discussions, but he does this by virtue of his ability and knowledge, rather than because he has any formal authority. The other "big men" would be jealous, and would ostentatiously disregard any attempt by the figurehead to set himself up as a chief. To become a figurehead he must establish his position by skill in debate, by knowing when to put forward his suggestions with the greatest effect, and by his suggestions proving to be the correct course to follow. If he does these things, and has the requisite sense of theatre -- if he can "sell" himself to the men's house, and the men's house to the world -- he gains prestige and may become the figurehead. Once established he can act on his own initiative in a crisis situation, and be certain that his prestige and the solidarity of the group will gain support for his actions. His office is not given formal recognition in a special native term, but the Pidgin term bosboi¹⁰ is frequently used following the example of missionaries and other Europeans. I propose to use that term here.

 10. For the spelling and general connotations of pidgin terms see Murphy 1949.

(44)

"Big men", and hence bosbois tend to be 'oldest brothers' since 'oldest brothers' inherit a knowledge of ritual, and the right to make prescriptive speeches. Such knowledge and oratory are essential for a "big man". In addition "big men" must discuss the payments which form the largest part of social life in Siane, and in order to participate in the discussions they must contribute to the payments themselves. Since it is the 'oldest brother' who has the title to all the lineage wealth, this is another reason why 'oldest brothers' have the greatest chance of becoming "big men". "Big-man"-ship is not hereditary, however, but is based on ability, so that there are lineages with several "big men" and a few with none.

The position of bosboi is not hereditary either, and it goes to the most able person, regardless of his descent. When the existing bosboi becomes unable to perform his duties adequately, be this because of old age, physical disability, poverty, or over-assertiveness, his tasks are performed by other "big men". One of these eventually proves himself the best, and is considered the bosboi; his name is used to designate the men's house; the group are his men.

The bosboi's privileges are few; to wit, he can call on the manpower of the men's house to perform a task like building his wife a new house. Such a task gives his men's house a chance to outshine the neighbouring men's house by building a better house for their bosboi's wife, and by giving a better food distribution afterwards.

His duties are that he must act as "father of the house", looking after its members by sharing food, and giving an example by his work, his hospitality and his energy. If there is a garden-clearing work bee, then the "big men" and particularly the bosboi work longer and more continuously than other men; if a visitor comes, then the bosboi gives him some of the food brought in by his wife; if there is a communal entertainment the "big men" and the bosboi provide the largest quantities of stored nuts, salt and oil; if work is flagging during the construction of a men's house, the bosboi leaves his seat, where he has been directing operations, and throws himself into the task, working feverishly until the others follow his example.

Although the bosboi has no disciplinary powers in the men's house, one man does have such powers, but only with respect to the young boys. This man is the guardian of the sacred paraphernalia used in the initiation and Pig Feast ceremonies, and he is in charge of the novices. If one of them shirks his duties, he may punish him physically, or he can organise the other novices, who do the disciplining. This guardian of the novices is never the same person as the bosboi, though he often succeeds to that office.

Authority within the clan as a whole is exercised in the same way as it is exercised in each individual men's house. Just as in each men's house there are several "big men", all equals and all jealous of the power of the others, and there is one bosboi, who is only primus inter pares yet represents the whole group, so it is with the clan. There are three or four bosbois who discuss matters affecting the whole

clan, and who are all present at ceremonies, representing their own men's houses, yet only one is spokesman for the whole clan. In the native system, when it is a matter involving the relations of an individual of one men's house and a member of another clan (as in a wedding), the bosboi of that particular men's house acts as the representative of the whole clan. The office of clan representative is often a rotating one. But in matters more directly affecting the whole clan -- peace-making after a war, for example -- there is one particular bosboi who most commonly represents the clan. He is the main spokesman for the whole clan, its representative, and its figurehead, but not its chief. In other situations he is merely the equal of every other adult male in the clan.

In pre-contact times rites of passage were rarely the concern of the whole clan, since only immediate kin contributed to the payments involved. The bosboi of the men's house concerned was the clan representative. Nowadays the range of individuals involved in any payment is wider and the whole village is concerned; the village figurehead often officiates, and has thus widened his sphere of activity. Since he was usually the first man to be encountered by the Administration, he has often been given Government recognition as luluai or "village headman". He wears a badge -- in pidgin called a namba -- and gains increased prestige thereby. He has also gained certain powers of coercion and the right to force the settlement of disputes by threatening appeal to the Administration. But his position is anomalous,

since in the native system he is merely the equal of his clansmates and their spokesman in relations with the Government.

In this situation where, outside of the disciplining of adolescents, no individual has any coercive powers, disputes are settled only after long public discussion. The principal parties to a dispute, backed by other members of their own group, be it lineage or men's house, start by violently abusing one another, as happens in inter-clan fights; the verbal intervention of neutrals eventually causes them to calm down, and suggestions about means of settling are made; when the principals finally decide that they no longer wish to continue their mutual hostility, one of them makes a conciliatory gesture by offering large 'presents' to the other; a return 'present' is then offered "to make the bowels smooth". The net result of the exchange is that one side pays an amount of compensation as suggested by the neutral intervenors, but by giving it as a present the party preserves the fiction of its autonomy in coming to a decision and gains a reputation for generosity.

The authority pattern within a lineage is centralised with the lineage head making decisions, representing the lineage to outside groups, and rebuking young members of the lineage. I saw no disputes occurring within a lineage.

In Siane religion the basic concept is that of the soul. The soul of a living person is termed oinya. The oinya is believed to leave the body during sleep and to wander about, causing the sleeper to dream. It is the oinya which is acted on by the sorcery of others, and much native medicine has as its rationale the protection of the soul,

even though the therapeutic techniques are carried out as matters of habit. Thus to cure a headache the forehead is bound tightly and the soul is kept in; bloodletting gets rid of bad blood which is inimical to the soul. The oinya is not explicitly said to be localised in one part of the body, but the manipulative techniques used suggest that it is conceived of as associated with the hair, the head, and possibly the sexual organs.

The term korova (or tamberan in pidgin) is used for the souls of dead persons, and to describe all objects which symbolise the ancestors. These objects include sacred flutes, the masks used in the fertility ceremony of First Fruits, the pantomime acts performed during this ceremony, a certain species of black flying fox, certain cold winds, and certain of the gerua boards. The korova of one's own clan are essentially benevolent, working for the clan's welfare by giving fertility to the crops and the land, by causing pigs to grow large and thus make the clan wealthy, and by causing children to grow to adult size. But if the korova are not treated correctly they can cause harm, either by withdrawing their support and giving poor crops, thin pigs and weakly children, or by attacking people physically. Thus, when a person dies, his soul is angry at the treatment it has received and hovers near his home, capriciously attacking people in the bush and 'possessing' them, so that they behave insanely. Only at the time of the next Pig Feast, when the dead person is specially honoured by a piece of his clothing being hung on the lineage gerua, does the korova become part of the benevolent corpus of ancestral spirits. This is also the end of mourning for widows.

Korova like quiet, whiteness, cold and damp -- the burial places are in low lying ground away from the village --; they dislike noise, blackness, heat, smells and women. The means of exorcising spirits causing possession and the means of driving newly dead spirits away from the village are thus by smearing one's face with soot, by lighting fires, by making loud bangs as green bamboos "pop" on a fire, by waving sweet-smelling wintergreen and citronella grass, and by carrying objects which symbolise women -- net-bags, sweet-potato leaves and rats.

The chief ceremony in honour of the korova is the triennial Pig Feast. Some time before the feast young boys are initiated by being shown the sacred flutes, and then being secluded in the men's house. Later, large gerua are made, hundreds of pigs are killed, other clans come from far and near to dance in return for gifts of pork, and all the married sisters of the clan are given pork by virtue of being descendants of the clan ancestors. Some of the pork is "fed to the ancestors" when the mouth-holes of the sacred flutes are smeared with pig grease. After all these honours paid to them, the ancestors give their continued support for the growth of the new initiates and of the pigs. About a week later the novices undergo an ordeal of having reeds forced up their noses and down into the backs of their throats. From their noses flows the blood which the mother provided in the conception of the child. Henceforth the boys are composed of male substance only, and their further growth depends on the ancestors. Voluntarily they continue letting blood from their noses throughout their adolescence.

One other large religious feast takes place in the intervals between Pig Feasts -- the ka mafo (Yam-Taro) ceremony of first fruits. In it the sacred flutes are carried all round the clan land to show the korova the gardens^m, while the women hide fearfully in their houses. When the crops are fully grown there is a massive distribution of garden produce -- I estimated 5 tons at one ceremony -- to the girls of another clan who visit the host village for several days as "temporary wives". They are entertained by numerous pantomime acts depicting in comic fashion the growth of the crops, and by a 'dance' at nights, when boys and girls pair off and rub noses.¹¹ The ceremony invokes ancestral support for the fertility of the clan itself and of its land.

A ceremony which takes place intermittently is the killing of flying foxes. Each clan owns a cave, in which live the flying foxes representing the clan korova. At the first menses ceremony of an 'eldest sister' of a lineage a slaughter of the flying foxes is organised, and some are fed to the girl to conclude the ceremony, while others are distributed to all married sisters of the clan. By eating the korova the sisters of the clan have their membership in it reaffirmed, while the menstruating girl is protected during the dangerous time when blood belonging to the clan itself (unlike the blood of wives of the clan) might be lost. Some protection is given

11. This dance resembles somewhat the kangu ceremony of many Chimbu groups (Read 1954:31). Among the Siane sexual intercourse never takes place, however, since it is anathema to boys who are under a tabu on contact with women during adolescence. The dance must also be distinguished from the awoiro activities which are for courting, and are individual matters (p. 54).

by the small first menses ceremony of all girls, since the onset of menses must take place on clan land.

Sociologically a funeral is a settlement of claims upon the dead person by means of payments and presents on the part of two interested groups -- the clan with whom the dead person lived, and the clan of a dead man's mother, or of a dead woman's brothers. Religiously a funeral appeases the soul of the dead person, when mourners cover themselves with white clay to emulate the whiteness of the dead soul and show violent grief by wailing and cutting off finger joints. Then the soul is exorcised by ceremonies involving popping bamboos, heat, women and smells. The appeasement continues for a month for the next of kin who remain secluded, and until the next Pig Feast for the widow who keeps her hair covered with clay until then.

Thus, in the ceremonies and beliefs concerning them, the korova can be seen as symbols of lineage continuity, of the association of the clan with the land and with pigs, and of maleness. Their arch-enemies are women and the enemies of the clan. Thus Siane religion provides a symbolic expression of the social organisation, and of the basic themes of the culture.

For the Siane child, life is a progressive expansion of the range of his social relationships. He is born in his mother's woman's-house, and one other woman attends. If the child dies during the confinement no attention is paid, there is no mourning and the mother may have sexual relations again immediately. After three days the child emerges from seclusion and the father acknowledges his paternity by giving a

feast to the mother, and presentations to her brother. If the child dies now, the immediate family mourns, though the whole clan does not. For the first two or three months the child's only contacts are with its mother. It sleeps in a mat inside her net bag, is carried everywhere by her, and is fed by her whenever it cries. After that time the child occasionally emerges from the mat and becomes acquainted with the other women of the village -- the women whom it will later call 'mother' too. As the child begins to move about its older siblings, particularly the 'oldest sister' and the 'oldest brother', watch over it. The father, when he is visited by the mother and the baby, fondles it with as much affection as does the mother. By the age of about six months the baby is given pieces of soft or pre-masticated food when adults eat -- mainly by the mother, but also by its siblings and father. Toilet training precedes weaning and is easy -- young children are never punished. When a child is old enough to speak the mother tells a little girl where to go to excrete, and the father does the same for a boy. Siblings of the same sex assist the parent. This marks the child's first relationship purely with members of its own sex. Weaning occurs between the ages of three and six, and coincides with the end of the tabu on sexual intercourse between parents following the birth of a child. After the ceremony marking the end of weaning the boy sits with his peers on formal occasions, and spends most of his time with them informally. Weaning also marks a change in the reaction when he cries -- now he is ignored. He also begins to follow his father to

the gardens and to learn work skills. Now too he is a full member of the clan, and if he dies the whole clan mourns. After being initiated between the ages of seven and ten years, a boy goes to live with his 'brothers' and 'fathers' in the men's house, and is withdrawn completely from his mother's influence.

A girl's life story is similar, up to the age of seven -- weaning marks her admission into the clan proper and her association with her peers. But thereafter she remains with her mother, learning female skills until the time of her first menses. Then she becomes a potential bride, sleeping with other girls in one woman's house which becomes a girls' club house, doing no work, meeting boys from other clans, and preparing for the time when she will leave her mother and live with another clan in a different village.

From birth both girls and boys have relationships with the clan of their mother. The mother's brother comes to the feast at the end of confinement and receives a payment for the child. Thereafter he is a continual visitor to his sister, and she continually visits her native village. The mother's brother gives the child gifts and affection. Other men of the mother's brother's clan either treat the child as an equal and a quasi-sibling -- as hovorafo, or affectionately fondle him as their own child -- as momorafo. Through this visiting a boy learns that marriage with a girl of that clan is like marriage with a sibling or brother's child, and is unthinkable. But a girl, visiting her mother's native village, does not visit the men's house and treats only those who live in her mother's brother's house as quasi-siblings. The boys of other lineages remain distant and

marriageable. In fact, since the girl is a "child of the clan", she is coming home if she marries a classificatory matrilineal cross-cousin. Then her mother's brother is present in the same village to defend her in marital quarrels, and his claims over her are no longer a matter of conflict between his village and her natal village. Such marriages are preferred, and occur in a significant number of cases.

A boy makes contact with unrelated clans as an adolescent when he, in company with other youths, visits girls in other villages -- a custom called awoiro. This is a dangerous, yet potentially enjoyable exploit where care has to be exercised. The first danger is of sorcery by the clan being visited, and before any party sets out for awoiro the group will perform anti-sorcery magic. When the group arrives in a village and tries to attract the girls' attention, they may be snubbed or they may meet rival suitors. They must use all their social skills, and if they are successful in impressing the girls they are invited into the girls' club house for a night of singing, talk, petting and breast-fondling. But they must be careful not to eat any food or sit where they could be bewitched by the evil eye. More important they must avoid putting themselves in the power of the girls by having menstrual blood spilt on themselves, or by being seduced into having sexual intercourse. In such an insecure situation it is common for one of the party to have a mother's brother in the village, and for the party to go to his house. Then they are safe from the evil eye and may eat. The rewards of awoiro, the singing

of songs, the display of ornaments, being picked as a sleeping partner by one of the girls, and the triumphant march home at first light are a source of endless talk among boys.

Boys on awoiro are not liable to be killed, they are not subject to in-law avoidances, and their activities do not involve any ceremonial payments. In other words their actions do not involve corporate clan obligations, and the boys have some six years to learn how to relate with other clans, during which time they do not suffer too much from their mistakes. Visiting as individuals they learn the dangers, but also the rewards of relating to other hostile groups.

Responsibility starts when a girl whom the boy has met in awoiro becomes 'possessed' and elopes to his village to precipitate marriage. If the boy's father and clan approve, payments are made and a wedding takes place, usually when the boy is about 17 and the girl 16. Now the youth must avoid his wife's clan and his wife until "hair grows on his chest", or until he is about 20. Then his father kills a pig at the nearest Pig Feast, and the youth becomes fully adult. He builds a house for his wife, who has previously lived with her mother-in-law, they commence co-habitation, and he must give presents to his wife's father.

The first child opens the way to his becoming a 'big man', just as it involves him in making payments to his wife's clan. If he is competent¹² he becomes a 'big man' at about age 30, and perhaps a bosboi six years later. When he is about 50 he relinquishes lineage headship and becomes "an old man who sits in the sun". His sons aged about 30

12. See pp. 42-43 for a discussion of the pre-requisites for becoming a 'big man'.

take over lineage affairs and provide him with food. His responsibilities are at an end, and though he offers advice on all questions, he does no more work. When he dies, the chain of relationships that he had with his mother's clan are terminated by the funeral payments; the chain of obligations he started with his marriage continue until the death of his sons.

Summary

Social relationships and their symbolic expressions fall into three categories in Siane. Firstly there are the close relationships within the clan and analogous, but less close, relationships with the extensions of the clan -- the 'close people' and the tribe. These close relationships imply common residence, common group activities, corporateness in marriage obligations and in relations with other groups. These are groups symbolised by the korova in the religion, and groups within which the child grows up and learns its responsibilities.

Secondly there is a web of individual kinship ties -- mainly those that an individual has with his mother's brothers. These ties are close and affectionate, and are mainly strengthened in early childhood by visiting and by gift giving. The ties are symbolised by the mother's blood, and, as in the initiation ordeal, the paternal clan makes every effort to minimise them. But for the individual the ties only cease at death.

Thirdly there are the relationships with other clans. These are formal at best, and have hostility as their permanent base. Warfare, suspicion of sorcery, the need to make payments, the obtaining of wives -- these are the elements of the relationship which combines danger with

potential advantage. Its nature is symbolised religiously in the hostility of male to female, since all wives are ipso facto from a different clan from their husbands.

Within the clan and its extensions relationships are based on an assumed equality between all individuals. These autonomous individuals combine into groups, which I call lineages, men's houses and clans, for work, for the honouring of their ancestors, for ceremonies, for the maintenance of order. Each group of any one size is the equal of each other group of the same size, and the groupings are ordered hierarchically on the segmentary principle. Within the lineage one individual has a degree of authority, as well as a representative role vis-a-vis other lineages. In larger groupings one individual performs the representative role, but he has no powers of compulsion. The groups live together because they were born together, and, come what may, their relationships with one another stay harmonious.

Chapter 3

The Indigenous Economy

Before it is possible to describe the process of economic change in Siane a description is needed of the status quo ante from which change took place. Observation of Siane economic life before the advent of Europeans -- what I term the indigenous economy -- was clearly not possible, although there are some early travellers' reports which will be discussed in the next chapter. The indigenous economy existed at least until 20 years ago, however, and the descriptions given by natives over the age of 20 show that, in most respects, what is observable today was also the pattern of activity in the indigenous economy. This chapter is thus a reconstruction based on observations made personally by myself. Where informants' descriptions indicate that matters were different 20 years ago I note the fact and give their descriptions as well. Where my reconstruction is based on deduction and informants' vague impressions, I indicate this. The validity of my reconstruction is further confirmed by my limited observations of nearby groups who had first seen white men only three years previously. Where I have such confirmatory material I present it.

Even superficial observers of Highland societies (c.f. Gitlow 1947) have been struck by the radical differences between the subsistence activities of these societies and their complex arrangements for

trade and ceremonial exchange. On my arrival in the field I too was immediately impressed with the fact that there were several nexuses of economic activity, each associated with distinct attitudes, conducted in different locations and by distinct groupings of people.

One nexus of activity took place, in the main, outside the villages. It seemed principally to involve individuals acting by themselves. There seemed to be no urgency, excitement or enthusiasm about it, only a simple matter-of-factness. This was something one did steadily and quietly, if no more exciting activities presented themselves, and about which one did not talk. My inquiries about these activities were met by blank incomprehension that I could be interested in such mundane matters. If I went out to observe what people did, they would cease their activities, cut sugar cane, and sit beside me to talk, eat, and smoke my tobacco. If I asked people what they did, they would answer in pidgin "Mi go long wok tasol", or in Siane "Ronoma wonke" -- "I am just going to work". In short, this was the nexus of routine daily tasks performed to keep alive - the nexus of subsistence activities.

Contrasting with this there was a nexus of activities performed inside the villages, involving large groups of people (some resident and some visitors), and associated with an urgent excitement and concern. I did not have to inquire about such activities but would be told in advance when they were to occur. My presence at them was accepted, and my questions about the quantities of commodities involved were met by eager recitations of exactly who had provided or received every article. To describe the economic activities involved, such pidgin terms

as peim (to buy), bekim (to reciprocate) or sikelim (to distribute) were used. In the Siane language only one term -- gimaiye -- was used to denote the focal economic activity, that of the ceremonial handing over of goods. To call this nexus of activity one of ceremonial exchange is to prejudge the question of the meaning of the activities. I shall leave that question open and refer to them as "gima activities".

For a long time I did not differentiate these gima activities from certain activities also occurring within the villages and in an atmosphere of excitement and pleasure, but which involved few individuals only. I was not told about these activities in advance but would often learn about them when a man from the village would come to my house in the evening bringing two or three strangers, and say "I have brought my cross-cousins to see you", and I would realise that the excitement and preparation of special food was for the entertainment of guests. Or I would be told about a friend I had not seen for several days "Em i-go long niniburi" (He has gone visiting, or on holiday), and several days later I would receive a basket of nuts when he returned carrying several. Or yet again a man would proudly ask me to come and see his marita fruit garden, which I had not discovered in my tour of the village gardens, and he would be most excited over my reactions. But although the same attitudes were involved in these disparate activities and it was clear that they were distinct from the subsistence and gima activities, the common focus for them all was not apparent. Since they all seemed to concern the production or consumption of certain

pleasant but inessential commodities, however, I tentatively took these as a focus for the economic activities and designated them "luxury activities", and the nexus as a luxury nexus.

I have distinguished these three nexuses using impressionistic criteria for the most part. I shall organise my description of the total economy by describing each of these "impressionistic" nexuses in turn. In the course of the description it will become clear that the three nexuses, as defined at present, are not mutually exclusive although they are exhaustive, as a means of describing economic activity, in the indigenous economy at least. More exactly, the criteria of distinction I have used do not always permit of a rigid separation of luxury from gima or subsistence activities. Subsistence commodities are occasionally handed over ceremonially (gimaiye). This leads me to a closer examination of the native concepts used in describing the transactions in each nexus, of the commodities transferred or consumed, of the circumstances under which transactions take place, and under which apparently anomalous transactions occur. I try to isolate more objective criteria to distinguish the types of economic activity in Siane. Till those principles have been isolated empirically, it is hoped that the reader will bear with the approximation to them that is provided by the division of Siane economic activities into subsistence, luxury, and gima nexuses.

I. Subsistence Activities

Utilisation of resources

The staple crop in Siane is the sweet-potato. If it is missing from any meal, natives will say "Our throats are empty" as though they had not eaten. It is grown everywhere, even on 45-degree slopes, but is said to grow best on well-drained land, having rocky outcrops of limestone and black soil. Some taro is cultivated as an alternative crop, to vary the diet, on the wettest land available, usually in the saucer-shaped depressions common in limestone country. A few yams are grown as another alternative delicacy.

Many green vegetables are used as a relish to accompany the sweet potatoes. Some appear to be varieties of coleus called namfa in Siane (pidgin kumu), while others resemble Wandering Jew (*Tradescantio variegata*) and are called ankuramfo (pidgin seiyul). They are grown from seed, scattered haphazardly among other garden crops, and single leaves are snipped off as required. The leaves of larger bushes and shrubs, such as the Greater Breadfruit, are used to wrap food during cooking. They impart some flavour to the food and are nibbled as savouries before a meal starts. A variety of wild sugar called kumfa (pidgin pitpit) is also grown in every garden, and provides soft shoots, reminiscent of asparagus.

Maize and cucumbers are found in all gardens, and although they must presumably be recent introductions, they are so well integrated into the ritual complex and have native names, and must be considered part of the "indigenous economy". No native could remember a time when they were not present. They are both eaten as light refreshment between

meals -- cucumbers as a "drink", and maize roasted on the fire -- although cobs of corn are cooked for the evening meal by steaming.

Since early Government patrols distributed seeds of European vegetables, these are all grown to please the white man and to have something to offer for sale to European visitors. Only cabbages (steamed whole when pork is cooked), Irish potatoes (to supplement sweet potatoes if supplies are short) and tomatoes ("drunk" like cucumbers, between meals) are eaten by natives.

Other cultivated plants include tobacco, celosia and marigolds (used as red and yellow dyes), many decorative flowers and exotic plants from distant areas (orchids or coconuts brought back from the coast by labourers, for example). These are grown in the tiny plots of land surrounding each woman's house in the village.

More permanent plants which are grown and used include sugar cane and bananas. These yield over a period of 18 months and remain standing in garden plots long after other crops have finished. Tangets (as *Taetsia fruticosa* is called in pidgin) are grown as boundary marks, and to provide the leaves with which males cover their buttocks. In the moss forest above 7,000 feet nut-bearing pandanus palms are tended and owned by natives, who also plant palms bearing red oily roi (pidgin marita) fruit in the swampy valley bottoms. Passion fruit has been recently introduced by the Agricultural Department,¹ but the fruit is

 1. Where the present tense is used, or such statements as "has recently happened" are found, I am referring to 1953.

not eaten. Coffee-growing is in its infancy.

Casuarina trees provide wood for fencing, fuel and house building, and their growth is encouraged by the weeding of garden sites. This prevents the growth of kunai grass, the roots of which crowd out the casuarina roots. If the trees are permitted to establish themselves their shade then prevents the spread of the sun-loving kunai. Sometimes plots of ground are deliberately cleared as gardens and kept weeded, so that timber will be available 15-20 years later. This happens in the case of boys who have a crop of timber grown for them at birth, so that at their marriage they will be able to use the timber for building a house and for fencing a garden for their wife. Occasionally too, casuarina seedlings are planted in areas which no windblown seeds could reach. This happened, for example, in 1941 when Antomona clan of Emenyo tribe returned to their devastated village site, where all trees had been ring-barked, following their rout and expulsion in a war. Casuarina trees may then be considered "cultivated".

Many hardwoods grow wild in the moss forest. The properties of their timbers are well-known and for specific purposes and artifacts, specific timbers are used. Montu wood is always used for house rafters, ramfi for making clubs, otova for carved arrow heads. The hardest wood, used for straight arrow heads, bows and spears is ofia (pidgin limbom) or black palm-wood. The kafo, or wild-fig tree provides bark-cloth when the bark is beaten out by men. When it is shredded and spun by the women, its fibres make the thread, from which belts, bags and

clothing are made. Pandanus trees which grow wild provide leaves for many purposes. Some are sewn together to form mats on which women sleep, or in which they carry young babies; other varieties are used as insulating material inside the walls of houses; yet others form a water and fire-proof layer under the roof thatch.

Bamboo, both wild and tended, is the most useful plant growing on the lower slopes. Thick varieties provide long water containers holding about a gallon, when the internodes are pierced, and, when green, form useful cooking pots for vegetables and chopped meat. When dry they provide tapers by night, and produce fire by friction by day. Turned into a tool the bamboo makes razor-sharp knives for carving meat, pipes for smoking, flutes for playing, flexible bow-strings, and passable bows. Cane is woven to make decorative belts and arm-bands, often with yellow or brown orchid fibres as decoration. Wild reeds are beaten out flat and woven to produce a fabric suitable for a rough house-wall, or a bed.

The lower hillsides also provide much decoration for the individual or for religious ceremonies. Small hibiscus blooms are worn in the hair, kafo nuts are strung into necklaces, earth is burnt to provide brick-red pigments, wintergreen bushes and citronella grass give scents to exorcise evil spirits. Some varieties of grass can also be burnt to give salt, a commodity which is notably scarce in Siane.

Against this picture of diverse vegetable resources one must set the scarcity of animal resources. Hunting is of little importance, though both birds and opossums are shot for sport, and incidentally for

food. Opossum skins are worn for decoration, and their fur is spun with bark-thread to make softer belts. Smaller game, rats, grubs and insects are often caught by youths, but they are eaten only by women and children. The most important form of hunting, although it is as rare as the birds themselves, is the shooting of birds-of-paradise for their plumes.

Figs are all domesticated, but they roam the bush all day rooting for food. They return at night to the women's houses in the village, or the pig houses in the bush. Occasionally one does not return home, but runs wild, devastating gardens and attacking humans. This is then the occasion for a festive hunt by beaters, spearmen and bowmen who rush wildly through the head-high grass, shouting wildly. It is an occasion for sport, not for adding to the food supply. The activities concerned with raising pigs will be further discussed in Section III of this chapter; here only their existence as a source of food need be mentioned.

Chickens and dogs are also domesticated, but both species were extremely small before the arrival of Europeans. Little care is needed by either, except that a man will often carry a brood of young chicks in a basket for a week after they have hatched. Thereafter they roost at night in the trees near the women's houses. Both dogs and chickens are occasionally eaten, though eggs are not. A few domesticated cassowaries exist, kept in stout stockades for their plumes and for the shell of their eggs. Sulphur-crested cockatoos are fed like pets, and occasionally plucked of their crests. The list of animals kept or

used has not been increased by European contact, except that occasionally a cat is found (and eaten). Horses, cows, sheep and goats are known by sight but form no part of the native's way of life.

In short, the environment provides extensive resources to meet the needs for food, shelter and clothing. Many resources that I have called "wild" are plentiful, are not systematically exploited, and their use is surrounded by a minimum of regulation. Others such as meat and salt, nuts and roi fruit, are scarce, and their use is the subject of social arrangements which will be discussed more fully in later sections. Vegetable resources though plentiful require systematic exploitation to ensure a sufficiency. The nature of that exploitation is the subject of the remainder of this section.

The agricultural cycle.

The even temperature and the constant rainfall mean that most crops can be grown continuously with little seasonal variation. True, the drier period from May to August may cause taro to wither, and may be a better time to burn the brush on newly cleared gardens, but some gardens are made at all times of the year, and most crops are grown in every garden. Only the tree crops show marked seasonal influences, the season for pandanus nuts being from November to May, with a peak in February, while roi produces its largest fruits in May. Of the newly introduced crops passion fruit bears in January and February and again in August, while coffee must be replanted and thinned out during the wetter months.

Tuberous plants, on the other hand, when once they have reached maturity, sprout continuously in the earth and may be harvested at will. Seed-propagated plants resow themselves and bear in a similar fashion. Thus a garden, when cleared and planted, bears crops for the first time in four months. It continues to bear crops until the fertility of the soil is exhausted -- until the sweet-potatoes are small and stringy and are "food for pigs" -- or until the upkeep of fences and weeding prove prohibitive. The soil is not outstandingly rich, but the climate makes plant growth so rapid that the natural reserves of fertility are soon exhausted. After at most three full croppings, but commonly after only one crop, the ground must be left fallow. Eighteen months after ground has been cleared and planted, the only crops still yielding are the bananas and sugar-cane.

The ^c_Aycle of gardening activities starts when a new area of ground is cleared of its trees and undergrowth. An area is chosen where the trees are said to be "ripe" or "dry", and have a diameter of about 10 inches. This is men's work. They chop down bushes, clear thickets of pitpit-reed by a judicious mixture of chopping and burning, fell some trees and pollard others till they stand bare except for a few leaves on top. The felled timber is split and chopped to form sharp, five-foot long fence posts, which are stacked nearby. Since the natives work only intermittently at clearing and chopping, it may be a month before the ground is cleared and sufficient fence-posts cut.

The next task is to build the strong fence to stop the inroads of the pigs which roam the bush. It is an occasion for intensive,

continuous work by the men. Two rows of posts are driven obliquely into the earth, so that the posts cross, and their sharpened tops project fearsomely in both directions. The bases of the posts are separated by logs, while other logs are placed in the cradle formed on top. No gaps are left between posts, and the result is a formidable barricade.²

Before the gardens are ready for planting the men must chop down any standing undergrowth, and the women must grub out the roots of the kunai-grass with their digging sticks, pile up the refuse and burn it in bonfires. While they do this, the men bring in long poles, called mea, and lay these across the cleared earth to divide the land into small plots. Each plot is about 30 feet wide by 70 feet long, and is "given" to one woman to cultivate. Thenceforward she regards that plot of land as "hers".³

On the days when a woman intends to plant a newly cleared garden, she goes first to a garden that is about to be abandoned, to collect cuttings of sweet-potato vine or taro tops. Arrived at the new garden she scrapes the earth into little mounds about three feet apart and six inches high, and thrusts some sweet-potato vine into each. She uses her digging-stick as a dibble to make holes in the low lying ground, into which she thrusts the taro tops. On areas where a bonfire has been located she scatters maize, cucumber and "spinach" seeds she has brought from the village. Close to the mea, where they will be accessible, she plants shoots of wild sugar-cane, gathered from the derelict garden.

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2. An inferior fence of single posts, bound top and bottom with creepers is used for unimportant gardens.
 3. The rights implicit in such property concepts will be discussed later.

Some so-called "male" crops are planted by men in the gardens of their wives. The men dig out the stumps of banana trees from old gardens and plant these in the centre of their wives' plots. The shoots from the top of harvested sugar-cane, and old yam tubers are planted near to the mea poles. The latter crops require attention as they are growing -- tying to long stakes, for example -- and the mea poles provide access to them.

When the garden is newly planted it presents a neat pattern. The irregular fenced area is divided by the mea poles into irregular rectangles. Within the rectangles the sweet-potato mounds, each crowned with a sprig of green, form an intricate pattern like the overlapping scales of a fish.⁴ Scattered irregularly over the dark-brown earth are the yellowish-green leaves of young taro and banana plants. But the intersecting circles of the mounds are not merely decorative; they prevent erosion. On a steep slope the rainwater collects behind one mound before flowing across the slope to the depression of a nearby mound, and only gradually percolates downhill.

Erosion is not explicitly recognised by natives as a problem. This is probably because newly cleared gardens remain bare earth for only a few weeks. Sweet-potato vines spread rapidly over the whole area, and within a month or two the yams, sugar-cane, bananas, maize and "spinach" provide a forest of vegetation some six feet high. Weeding now becomes an activity taking a large portion of the women's time, while men must set about clearing the next garden site.

 4. The "chess-board" effect produced by dividing gardens with deep drainage ditches, as is found on the Goroka and Waghi plains (Leahy & Grain 1937:49,150) does not occur except among a few eastern Siane groups which have copied the Plains-dwelling Gahuku. Drainage ditches in Siane are dug only in re-entrants and hollows.

About three or four months after a garden is first planted, the maize is ripe. Other crops begin bearing during the succeeding months until a full range of vegetables is available. There is no sudden glut, however, for many different varieties of the major crops are known, some of which have slightly longer periods of maturation. Another method of spreading the time of first cropping is the practice of leaving the edges of a garden plot unplanted for some time while the rest of the plot is planted. These edges, termed onawaruma in Siane, are planted at intervals during the succeeding months and bear correspondingly later.

There is no systematic replanting after the first harvest, and few plants of maize, yams or taro are found in the gardens thereafter. At the end of nine months only sweet-potatoes, "spinach" and half-grown bananas and sugar cane are left, together with 18" high casuarina seedlings fostered by the weeding. Activities in the garden are limited to fence repairing by the men, and crop-gathering and weeding by the women.

At the end of 18 months the sugar and bananas are finished, and the casuarinas are four to six feet high. The men tear down the fence posts, and cut the remaining pollarded trees. Pigs root out the remaining crops and the area returns to bush. In about 15 years the timber is "ripe" or "dry", the pine needles, the tree roots' action, and the pigs' droppings have regenerated the soil, and the agricultural cycle can start again.

Native statements about when newly cultivated gardens were

cultivated previously indicate that in pre-contact times the cycle was adhered to fairly closely. The main interruption of the cycle occurred during wars, when all the casuarinas near a defeated village would be ringbarked. If villages were situated on the lower slopes or on central ridges within the main valleys -- both advantageous sites -- they were particularly vulnerable to ringbarking. With no cultivated timber nearby, they were forced to live and make their gardens high on the slopes near the moss forest. Except where villages inhabited by renowned fighters led a precarious existence, envied by less fortunate villagers, the lower slopes were covered with uninhabited kunai, treeless and hot.

Following European contact more gardens are being made on the convenient lower slopes, and villages are moving down too. Rocky and inconvenient gardens near the moss forest are being vacated. At the same time, the advent of steel axes is now making it possible to clear moss forest and some gardens are being made where before were none. On balance I would say, after hearing native descriptions of pre-contact times, that the overall tree-cover of the area is increasing, though there is an increasing proportion of casuarina to eucalypts.⁵

Since, with native techniques, there is no storing of their subsistence crops, new gardens must continuously be planted if the food supply is to be continuous. In practice new gardens are cleared at intervals of about 3 months. Since every garden is under cultivation for $1\frac{1}{2}$ years and under timber for 15 years, it can be seen that the

5. C.f. Read's (1954:3) comments on reafforestation in the Goroka plain.

maintenance of soil fertility demands that ten times as much land must be lying fallow at any one moment, as is under cultivation. We shall return to this topic later.

The Sexual Division of Labour

In describing the agricultural cycle I have indicated which activities are performed by men and which by women. The distinctive feature of men's work is that it requires the use of an axe. Without an axe a man is "like a woman", the natives say, and youths signify their approaching manhood by carrying an axe at their belts and trying to help with axe work during the gardening. Using an axe is a mark of skill, and men and boys gladly display their skill in splitting logs. They spend hours polishing their axes to razor sharpness.⁶ Thus men clear garden sites and build fences, and male crops are those like yams and sugar-cane, for which supporting poles must be cut, or bananas which require chopping down for re-planting.

Women's work is despised by men, who will perform it only under extreme pressure of hunger or of European ~~hunger~~ authority. Women are felt to be rather stupid creatures, only able to carry out a routine under the supervision of the brilliant males, and their gardening tasks are the routine ones of planting, weeding and harvesting. They are irresponsible creatures (say the Siane men) and their short-comings -- and any sexual aberration in Siane is phrased as the being the fault of the female partner -- are shrugged off with the remark, "Yaroma wena neta ne" -- "That's what women do."

 6. My coarse carborundum stone was despised, except as a means of removing deep chips from axe blades.

Repetition and routine are the keynotes of all female tasks; of their daily cooking of food, of their constant readiness to suckle infants and feed older children, of their craft activities of knitting net-bags, and of their tending the pigs. Skills are needed but they are skills despised by men.

The woman's main task is to provide food for her husband and children. Since sweet-potatoes are not storable, she must repair to the gardens every day to bring home supplies. Typically women wake early, feed their children with sweet potatoes baked on the fire in their houses, and leave for the gardens at about 8 a.m. After an hour's walk to the gardens they work steadily, if unhurriedly and with frequent pauses, until about 2 p.m. when they must return home to prepare the evening meal. Half of their time at the gardens is taken up with harvesting food and collecting loose firewood; half is taken up with grubbing out roots, planting new areas, or weeding old areas, as the state of the gardens determines. Between 2 and 3 p.m. women converge on the village, each carrying a bag of vegetables and a bundle of sticks -- a load of some 60 pounds. They pause at the village spring to wash the vegetables and talk. Outside their houses in the village the individual women build large fires to heat stones which are piled on top. Using split sticks as tongs, the women lay these hot stones in the bottom of their ovens -- hollowed tree-stumps --, cover them with leaves and with the vegetables to be cooked, pour on quantities of water, and seal the oven with a thick cover of grass and leaves. As

the water percolates through to the hot stones, steam is formed and the foods cook slowly.

During the hour and a half when the food is cooking young children are fed, women sit in groups and talk, while doing their craft activities. These include tearing apart bark to produce fibres, spinning those fibres by rolling them on the thigh with the flat of the hand,⁷ knitting the fibre into net-bags for carrying purposes or for men's front coverings, tying it to make sporran-like women's front coverings, or sewing together pandanus leaves to make mats. Net-bags are the commonest article made, and require curved bone needles and "spacers" of palm-leaf strips as tools. A row of loops is tied round one spacer, and another spacer is placed next to it. The needle and thread are passed round the second spacer, through a loop in the previous row of stitches, are twisted back on themselves to make a knot, and all the loose thread is gathered up on the thumb and forefinger before the next stitch is made. The women do this work with a steady rhythm, rarely looking at their work, and keeping up their conversations. They make their skill seem a routine.

After the meal is cooked, children nibble at tidbits while the women prepare to carry the food to their husbands in the men's house, using wooden dishes or large leaves. Each woman walks up to the men's house fence, calls her husband's name, and he either tells her to bring it to him, or sends a small boy to collect it. Later the wife returns to collect any surplus food and the container. After she has eaten

7. My own experiments at spinning thread in this way showed me how male hirsuteness makes this a painful, if not impossible task for men to perform.

her own meal she often has to walk for an hour to her 'pig house' in the bush. But even if she remains in the village she must call the pigs home to sleep. The "p-r-r-r" sound, used to call pigs, and produced by flapping the lips is the familiar sound of the end of the working day in Siane.

Even on occasions when there is a village festivity, the women must go early to the gardens to fetch food, though they then return by midday. The main events varying the women's routine are the days when they remain at home sick, and friends provide their food, and the visits they make to and receive from their brothers.

By contrast the men's work varies. When they are working on a new garden or building houses, they work strenuously and for long hours. At other times they are more leisurely. When they work hard they wake with the dawn and sit huddled round the men's house fires baking their breakfasts of sweet-potatoes. They leave for the gardens about half an hour after the women, and with the delays for sharpening axes and discussion of the day's work, they are not at work till about 10 a.m. Half of the men work at any one time, relieving each other at intervals. At about 2 o'clock a short rest is often taken, with a 'drink' of sugar-cane or cucumber, but otherwise work continues until 5 p.m. when the long trek home begins. By six o'clock the men are sitting in the men's house clearing eating their evening meal. After dark the older men sit in the men's house talking, while the youths may depart on awoiro. Their work is over.

When men are building houses they have a similar daily timetable,

some departing early to collect materials, and others working at clearing and levelling the site. The morning is occupied by the strenuous work of driving in two rings of wall-stakes, inserting the insulation between the rings of stakes, and binding their tops to secure the structure. A break comes in the work, as the house posts are driven in and measured, and the main rafters tied in position. Then all men return to strenuous work, fastening the remaining rafters, until the house/^{frame} is complete. If it is a woman's house that is being built, the future occupant then provides a welcome meal for those men who have built, and for her female friends who have meanwhile collected grass for use as thatch. If the house is a men's house, all the wives will have brought thatch, and some of the men will have spent the afternoon preparing a meal of nuts, yams, and other "male" foods, to feed the workers.

When mere maintenance work is being done -- fence repairing for example -- the men work at a more leisurely pace, and return home by 4 p.m. carrying logs for firewood. On Sundays and Mondays, the days which Missionaries and Government have pre-empted for church or for work on Government Rest Houses or patrol roads, the day's tasks are over by noon. The leisure hours are used for chopping firewood, for sharpening axes, for craft activities and for the playing of football by the younger men.

The craft activities include the smoothing of new axe-handles; removing the brown outer covering of gold-lip sheels by rubbing with sandstone, and then cutting a circular piece out of them to leave a

crescent of mother-of-pearl; sewing small cowrie-shells on to bark to make headdresses; weaving cane armbands and belts, plaiting ropes of grass for tethering pigs out of grass; carving jews-harps out of bamboo and decorating them with poker-work designs burnt with glowing sticks; and beating out kafo (or wild-fig) bark to make bark cloth.

Commonly the making of bark-cloth is an excuse for men to remain even more leisurely at home, and not depart for the gardens. They beat out the bark by laying it over a log as over an anvil, and tapping it with thick round stones, which have a grille-pattern cut into the end. The steady tapping of stone on wood, with occasional pauses as the worker spits on his "hammer" is the hallmark of a quiet, lazy day in Siane. Even this noise stops in the afternoon as the workman smears ochre, soot and dye on to the cloth, using blades of grass as stencils.

The men vary their activities even more, not only by remaining home sick and by visiting, but by their ceremonials, legal discussions and warfare, and by occasional hunting trips. Frequently the youths remain at home all day, sleeping off the effects of their previous night's awoiro.

The organisation of work groups.

Although work can be categorised as "men's work" or "women's work", this does not mean that all men of a village combine to do their tasks, and all women combine to do theirs. The whole male population of the village works at the same time when a large garden is being cleared to provide food for a first-fruits ceremony, or when the

men's houses are being rebuilt before a Pig Feast, but the groups which work together at the same spot are usually men's house groups.⁸ At the clan/village level there is merely close co-ordination of work.

Such tasks are initiated by informal evening discussions in the men's houses. Since men's houses are rebuilt at three-yearly intervals there is little debate over whether they should be built or not, and discussion centres round details of size and location within the compound. Similarly, since the sequence in which gardens were last cultivated is generally known, discussion of garden-making centres round the question of which clan to invite for the eventual first-fruits ceremony. Only if the trees are "unripe", or the area is too small to provide food for a large ceremonial is there discussion of which area to clear. After each men's house has made a tentative decision, there is further informal consultation between 'big men' of the various men's houses. Final decisions are then announced within each men's house by the speaking of the appropriate set speech by the head of the lineage which owns the privilege.⁹

The decisions are not further publicised, although long before any clearing starts even young boys know which are the next two or three areas to be cleared and the names of the clans to be invited to the first-fruits ceremonies. An advantage of this lack of publicity

8. The similar organisation of ceremonial and religious activities has been outlined on page 24.

9. The relationship between these speeches and the authority structure of the clan is dealt with more fully in Salisbury (ND), where fuller information will be found concerning methods of decision making and techniques of man-management in Siane.

was demonstrated when I was told informally that a certain clan would be entertained at the first-fruits ceremony of one garden. A dry spell intervened, and despite the efforts of rain magicians, the all-important taro withered. There was no ceremony, but my inquiries about it met with blankness. There would be one next year for a different garden, they said, at the moment it was too soon after the last Pig Feast. Privately I learned the real reason for cancelling the plans, but since no other clan even knew of the plans, no face was lost.

When work is due to start the 'big men' take the lead and commence clearing land owned by their particular men's house.¹⁰ They do not force other members of the men's house to accompany them, but within a few days all members are helping. Youths are often intractable, but if they fail to work they may be disciplined by the 'guardian of the novices'. Once work is proceeding in earnest all members of the men's house are expected to assist as part of their obligations. If for some reason they cannot attend, they obtain substitutes, such as wife's brothers, or mother's-brother's-sons, to come from other clans and work in their places. I never saw more than five such substitutes at any one time, and their contribution to the work is not large. They do little hard work, are well entertained, and their presence is symbolic of friendship and respect rather than being economically

 10. Discussion of land tenure is made later in this chapter. The land 'big men' clear is usually land which their own lineages 'own', but in the present context what is important is that they act as members of a men's house group on land over which that group has rights.

productive. From their point of view they are visiting and assisting the clan of their affines; from the point of view of the workers they are ensuring that the whole complement of the men's house (or substitutes) is present at a task defined as being performed "by the men's house".

While clearing is in progress individuals (or lineages) tend to work separately on areas within the garden which are owned by that individual (or lineage). No land within the garden may remain uncleared, and the smaller groupings work in time with each other. If a plot of land belonging to a member of a different men's house is included within the garden, he will have to join the work group of another men's house, but such cases of joint work groups are rare. Only if an area remains uncleared because of its owner's sickness do men work on land belonging to other lineages. Youths, however, tend to work with their age-mates, and may even assist other men's houses than their own.

When fences are being built, all men of the men's house combine to erect the fence. If the garden areas of the several men's houses are contiguous, rather than merely near to one another, one fence may be a joint construction by all men's houses. Even so, each men's house works as a discrete unit on its own section of the fence.

In the building of men's houses the same pattern of organisation appears. Each men's house makes its own decision

to rebuild, but the plans are co-ordinated on a clan basis. The 'big men' take the lead in collecting timbers and insulating material, and each men's house, in a rough synchronisation, tears down its own house before levelling the site for the new one. When the site is level and the walls are to be erected, some members of all men's houses of the clan come to assist the nuclear work group of the men's house group. When the next men's house site is ready, assistance is then given by the occupants of the first house in their turn. On such occasions affines and mother's-brothers come "to help", but, as with their help in gardening, their presence is symbolic rather than productive. They are visitors only.

Thus in these work groups, the largest in Siame, about 100 men and youths may be seen working at any one time. Rarely though do as many as 60 combine in one group within which there is any delegation of tasks; normally the largest organised group is one of 30 workers from one men's house. Only about a quarter of this number are working under any form of coercion -- the youths under the 'guardian of the novices'. Whenever the need for a division of labour is less obvious the work group splits up into numbers of individuals or lineages working independently on similar tasks. It must be noticed, however, that the fastest and most concentrated work is performed when the largest group combines. During the loosely co-ordinated garden-clearing, work is performed, on the average, about every other day and at a fairly leisurely pace.

Ceremonials or other activities can cause interruptions which spread the ten to fifteen work-days over a period of a month. When fences or men's house walls are built the tempo of work increases, no day is lost, and work continues as long as the light lasts. The organised work is enjoyed and parties come back from the gardens singing. The women cook extra amounts of food, and, with the entertainment of "helpful" visitors, food consumption is about doubled. The larger the work-group the greater the festivity.¹¹

The women also tend to work in larger groups at these times, collecting thatch for the new houses, or planting and weeding the new gardens. All women of the clan go out at the same time, and work near one another, although each woman plants her own garden plot, or collects her own bundle of kunai grass. When the thatch-bearers return, all the clan wives are entertained by the men of the house for which the thatch is destined; when garden-planters return each men's house gives "male" food to its own womenfolk. The women sit in rows in the men's house clearing to receive their food, and to the visitors present this appears as a clan festivity. More careful observation shows that the men's house group is the organising group; the women's work has been performed as individuals acting independently.

More common work groups than either the clan or men's house group, as those of about one lineage size. Such groups build

 11. It is interesting that among some southern Siane groups the division between male and female spheres becomes blurred on such occasions. Women then dig earth-ovens in the men's house clearing to cook sufficient food, instead of using their tree-trunk ovens near the women's houses.

women's houses and pig houses, and clear gardens which individuals wish to make for their wives and lineage dependents, to supplement the plots they receive in the partition of communal gardens. Any individual, though it is more often lineage heads who do so, merely states that he intends to do such work and he is sure of the co-operation of other members of the lineage. His close friends, and especially his age-mates will probably accompany him to the work site, while any member of the clan who passes the area where work is in progress will stop for a time to talk and help.

Thus this form of work group usually has a nucleus of about four adult members of the lineage together with two youths. Commonly, as it is working, about seven adults and five youths will be present, half of them being non-lineage members. They work at the instance of a work-initiator who is often the lineage head, but who may equally be a married youth who has just attained adulthood and is building a house in which to start cohabiting with his wife.

When the day's work is over, the wife of the initiator brings food for the workers, while the work-initiator himself provides them with sugar-cane to drink. Larger amounts of food are provided, than is usual for evening meals, but these are not felt to be a "payment", except by some of the youths who are given food personally on such occasions, while normally they receive only food passed on to them by older men. Thus I once saw a youth of 16 refuse to share a sweet-potato with a younger boy, although normally sharing is the rule. In reply to the request for a share he said that he had had to work for the sweet-potato and did not wish to give any away to

someone who had not worked. The older men enjoy eating earlier than is usual, and having a long evening for talk and laughter.

Tasks such as repairing garden fences, planting banana trees, cutting yam poles, and clearing undergrowth round roi and pandanus trees are performed by adult men acting alone. When they leave the village on such tasks their sons have a choice between following them, and remaining with their age mates. My observation is that boys below the age of ten tend to go with their fathers more often than not. Between the ages of 10 and 16 boys tend to remain with their peers. Boys of 17 and 18 work with their fathers as willing helpers. In general, though, these are individual tasks and the sons are present as learners rather than as co-workers.

The initiation of work groups has been spoken of as a task for 'big men' who participate in discussions, and for individuals, be they lineage heads or younger brothers, who stand to profit by the work. There is also an organisation of the tasks of production in terms of the social status of the workers. When any work commences it is the 'big men' who set an example which others follow. Thereafter the 'big men' usually sit near the work-site, observing and criticising the work that is being done. If the tempo of work flags, they snatch their tools and feverishly attack the work until others follow their example. As long as the work is progressing satisfactorily and only routine tasks are being done they do not intervene. But at crucial points, where a decision must be made, such as marking out the line of a fence, or placing house-posts in the right position,

the 'big men' direct work by actively doing what they think is correct. When others follow their lead they retire into the background. If their lead is not followed there is no argument, but another 'big man' comes forward and does what he thinks is right.

'Big men' perform the same tasks requiring skill and immediate judgments during the work of a lineage work-group. The initiator is unlikely to be a 'big man', even if he is a lineage head, and is most likely to be an unimportant man with dependents who will benefit from the work-group's activity. His task differs from that of the 'big man' in that, although he may work hard previously amassing materials, he does little labour when the group is present. He provides the workers with light refreshments as they work, indicates the general site of the house or line of the fence, and directs any youths present to fetch materials as they are needed. He leaves the performance of the work to the 'big men' and the other helpers.

The body of 'helpers' who perform the routine tasks of levelling the ground, of dragging in undergrowth for burning, of driving in fence posts, are generally the men aged about 20 who are adults but who have no children and are not lineage heads. At all these jobs the youths perform the unskilled labour. They fetch and carry materials and bring lights for the older men's cigarettes. Only rarely, while an older man rests, are they allowed to borrow an axe and practice their skills.

Yet another way in which there is an allocation of tasks

among men is on the basis of skill in craft activities. All men can perform these tasks after a fashion, but certain individuals are more proficient, and are called "men who hear, or understand". When an unskilled man wishes to make a cowrie-shell headband, for example, he collects the material and may even begin sewing a few shells to a strip of bark before he takes the work to a "man who understands". Usually he goes to a skilled man of his own lineage, but if there is no such person he may call on any classificatory clan brother for help. The skilled man does the more intricate parts of the work, such as designing the diamond motif in the centre of the headband, but then calls upon other less-skilled men to do the routine tasks (in this case the sewing of a thousand shells to fill out the design). These unskilled men include the age-mates and lineage-mates of the man who commissioned the work, but may be from any part of the clan. In such cases, when I asked whether a gift would be given in return for the work of the skilled man, or his assistants, I always received the answer "No, we are his brothers; we are helping him".

There are some skills whose practice does bring some reward.

Men who can treat sickness in both humans and pigs and which is caused by sorcery, or men who can work rain magic in times of drought, receive payments for their services in the form of pigs. If magic is to be worked for a member of a different clan the pig must be killed and handed over before the magic is worked. If it is to be performed for a member of the magician's men's house or clan, the pig is

killed as part of the ceremony, and is then distributed by the magician to all members of the clan. If the magic is ineffective there is no question of repayment if the pig has gone to the sick man's own clan, but ineffectual appeals will be made if the pig has gone elsewhere.

Although the work of women is carried out by individuals working independently, there is some organisation and grouping evident. The way in which women collect thatch for the men's houses of the village has been mentioned. The way in which such co-ordination is achieved is through each man of the village telling his wife what to do and when to do it. The distribution of plots of garden land after the mea poles have been laid down is done by the lineage head who owns the land, and this causes groups of women to work in close proximity, since he allocates the land to all the female dependents of his lineage. Thus the wives of lineage mates travel to the gardens together, talk to each other as they work, but each one works her own plot and jealously guards the produce of her plot.

When the women return to the village the same group co-operates in cooking the food on some occasions, while on others women who were born in the same village before coming to live with their husbands, will co-operate. One fire and one oven may be used by three or four women, who all assist with the work, but use different ovens in turn. They may pool their supply of vegetables, but when the food is cooked each wife carries a portion to her own husband. When ceremonials occur and one hundred wives

bring food to the men's house simultaneously, only some twenty ovens will have been used. In theory each woman cooks food as an individual for her own husband, and brings it to him in the men's house; in practice there is organisation among groups of three or four wives to lessen the work.

It may, at this point, be asked "What are the incentives to work, or the punishments for failure to work, which the society provides to maintain the labour organisation?" I have mentioned the extra food after communal work bees, a lack of "payment" within the clan, obligations to find substitutes if a man cannot attend a work bee, entertainment of visitors, and gifts of pork to foreign magicians. The most obvious answer is that within a clan all men are "brothers" and on all brothers there is an obligation to assist one another. If the need for assistance is made obvious, by announcing the fact in the men's house, by a 'big man' taking the lead in laying down the line of a new fence, or by work being in progress in the building of a new pig house, it cannot be ignored unless the ignorer wishes to gain a reputation for laziness, or has good reason for doing so. In this way we can interpret the following of 'big men' to the gardens, and the casual assistance provided by passers-by during the building of pig houses. No strict account is kept of who helps whom, but if an individual persists in not helping others, other men will eventually decline to help him. There are some such men who live with their wives and children in pig houses outside the village, and who are looked upon as strange

and spirit-possessed. They were excluded from social life, though most of them seemed to me to be quiet, hard-working individualists who preferred isolation to village life.

But if such work is an obligation, why is food given at the end of a day's work? The gift of food does not absolve the giver from his obligation to return the assistance he has received, whenever the occasion arises. In fact, to give food is one of the obligations of clan membership. The special gift of food after assistance has been received could well be interpreted, therefore, as a special recognition of the existence of clan obligations. For the recipient of the food, what is received is not merely food but an assurance of friendship, of obligations to him, and of common membership in the group of 'brothers'. This, rather than a more general "pleasure obtained from festivity" adduced by other authors, may be the incentive to work in a group which is feasted when the work is finished. Such an incentive explains the gaiety surrounding the feasting of women who bring thatch to the building of a men's house. At marriage the women are incompletely filiated with the clan of their husbands, and retain links with their clans of birth. By their work they show their wish to fulfill the obligations of full members of their husbands' clan; the men, by giving them food and allowing them inside the men's house compound, assert that they are members and assure them of protection and help.

The same incentive, that of the desire to fulfill clan obligations, can be adduced to explain the different types of work done by 'big men', by unimportant men with dependents, and by young men without dependents. Thus the concern of the 'big men' with their duties to the clan, and with the welfare of the clan as a whole, is reflected in their readiness to perform tasks which give them little direct return in material goods -- work on communal gardens, and often, since they are usually skilled men, craft work for others. Unimportant men with dependents have less incentive to participate in clan activities, and more incentive to obtain direct returns of material goods, and they most frequently initiate lineage work-groups. Young men are still dependent on the clan for support in making bride-price and other payments, and are found working assiduously on all occasions as a means of asserting their responsibility as members of the clan.

The frequency with which help is given obviously varies as does the closeness of the relation of 'brotherhood'. Help for lineage brothers is given most frequently, although help to age-mates is about as frequent; help to members of one's men's house is common, help to men whose only relationship is that of clan brothers is least frequent.

The help that is given by wife's-brothers and by matrilineal cross-cousins has elements of being due to kinship obligations. The same word umaiye is used for "to help" and for "to substitute for" (as is the pidgin word alivim) and describes the behaviour of clan

brothers and of outsiders. But there are differences. I have stressed the small amount of productive work done by visitors; it would be as true to say that the visitors are not allowed to work since they are held in conversation, offered cigarettes, and fed with delicacies. If the presence of the visitors is their attempt to stress their obligations and relationship with the individual to whom they are related, the effusive entertainment by unrelated hosts is an attempt to prevent them from claiming such a tie with them. It is an attempt to put the relationship on a formal, distant basis.

The most formal basis on which work is done for another person is that underlying the payment of magicians. A tangible object, such as a pig is presented; in return there is an obligation to perform work; after the work is done, try as the pig-givers may, the relationship is at an end. Between unrelated clans, therefore, labour is a commodity to be exchanged for pigs. Within the clan labour constitutes one aspect of mutual social obligations, and the incentive to work (besides the prospect of an eventual material result from the labour) is the desire to strengthen those ties and obligations. Between cross-cousins the same incentive is operating, but the actions of other members of the clan minimise the extent to which those ties can be stressed.

Property ownership and land tenure.

In the foregoing discussion I have often talked about "owners", "clan land", "women's garden plots" and such terms. What I refer to,

in the first instance, by these property concepts is that, when I asked "Whose is that?", I received such replies as "It is mine", "It is Waifo clan's", or "It is Tene's wife's". Fully to understand such statements, we must ask at least two further questions -- "What rights or privileges with respect to that object did the respondent imply by associating a person or group with it?", and "What in the conversation made the respondent associate that particular person or group with the object, out of the many other groups and individuals who are associated with it?"

In Siane terms there are two types of right which a person can mean when he says an object is "mine". He can mean either that he is a merafo of the object, or that he is its amfonka. Merafo is the ordinary word for "father", and the merafo of property looks after it (hentaiye) just as a father looks after his son, acting in his best interests, and being responsible for his well-being to the community, to the ancestors, and to posterity. The property over which an individual merafo is the guardian, is thus comparable with an entailed estate. The term amfonka was derived for me by Siane informants from the word amene or "shadow". Like a shadow to the person who casts it, so objects are attached to their amfonka, and, just as the shadow is vaguely identified with the soul, so objects may be said to be vaguely "identified" with their amfonka. Objects over which individuals are amfonka, constitute their personalty.^{lla}

lla. I introduce this legal term to describe personal property as a translation of the native concept, because of its accepted opposition to "estate". Its associations with "personality" are, I think, present in the native term.

A man's personalty consists of his pigs, his ornaments of all kinds, his axe and other tools, his clothing, his wife's house, trees which he has planted on land of which he is merafo, and numbers of tanket shrubs scattered over the clan land. A woman's personalty consists of the necklace of pigs' teeth which her husband's father gave her at marriage, other trinkets, her bone needle for making net-bags, her supplies of bark-cloth, fibres, opossums' wool and clothing, her mats, her cooking utensils, her house and the crops she has planted in her garden.

An amfonka relationship with these objects is most often established by virtue of work done in creating the object. A man plants trees and builds his wife's house; a woman sews her mats and plants her crops. But the relationship can also be established by transfer from an individual who was previously in an amfonka relationship. Thus a man commonly receives an axe in exchange for a shell, and he makes bark-cloth and gives it to his wife, who gives him net-bag aprons; a woman is given her house by her husband. The transfer need not involve any "consideration" being given in return, for men commonly transfer their tankets to younger brothers, or to their sons, and receive nothing in return.

Even if work in connection with an object does not set up an amfonka relationship, it renders it possible to claim such a relationship. Thus a man is amfonka of his pigs by virtue of his work in bringing litters of newly farrowed piglets from the bush where they

are born, back to his wife's house (a task which involves courage in braving the anger of the mother sow). He indicates his ownership by cutting the pigs' ears or by other markings. But it is his wife who calls the pigs home at evening-time to sleep in the front section of her house, who fondles them, scratches their bellies and cleans their skins. Thus when a man wishes to kill his pigs, his wife will commonly wail and weep, until her husband gives her a small gift to prevent further argument. Similarly, when I was trying to obtain ornamental items of men's clothing, husbands were willing to sell, but invariably they returned later to say that their wives had worked so hard on the aprons they did not like to see them sold. In some cases a small gift to the wife was all that was needed, in others I had to return the articles.

If there is any dispute as to who is the amfonka of an article, the most important issue is to decide who actually made the object. Thus in the case of tankets or trees, whose ownership is most often in dispute, no case can be decided without a discussion of which ancestor, in the distant past, planted the trees. Thereafter the discussion traces the transfers of the property into the hands of the rival amfonka.

On the other hand, if the work is performed on objects over which the worker is not merafo, there is no claim to amfonka ownership. Thus one clan of Komunku tribe drove another Komunku clan into exile after a war, and planted pandanus palms on the estate of the exiled clan. In 1953 the returned merafos of the land

collected the nuts. The tree-planters fought them and tried to take the matter to a Government court. In the peace-making discussions they admitted they had no real claim to the trees, but thought that Europeans might have supported them. The final exchange of peace-making presents involved no great imbalance which could be construed as an indemnity for the work they had put in.

It is only where there is already a merafo relationship, that work performed sets up a claim to an amfonka relationship. If a man makes a garden on land, of which another lineage is merafo, he may cause trees to grow. He has a weak claim to those trees if he is a member of the same clan as the lineage merafo, since he is then a classificatory merafo also. The claim may be recognised by the lineage head transferring to the cultivator the amfonka rights over the tankets on that piece of land. It is my impression that such transfers only occur when the original amfonka has a surplus of tankets and land above his needs.

The rights involved in an amfonka relationship are those of considering the object as part of one's person. Any assault against such property is an assault on the person. Within the exogamous groups where fighting is prohibited, theft is abhorred, though when it is done to members of hostile clans, it is praiseworthy. The outraged amfonka can resort to self-help and public opinion supports his actions.

Thus if a man goes to a garden on which crops are growing, he

must first obtain the permission of the amfonka of the growing crops, (the minkuri in Siane). Even if it is his wife's garden, he otherwise is/assumed to be stealing crops,¹² and if she finds out, the amfonka punishes him by beating him and scratching him with her nails. Other men do not intervene as they normally do in male-female quarrels, but laugh at his discomfiture.

When a person is not at home he puts a plank across the doorway. To enter the house without permission, even though it be pouring with rain outside, is to risk a personal assault in return.

The fact that assault upon a person's tankets may be freely punished by means of self-help by the amfonka leads to their use as a more general mark of property. If a person discovers a useful, but wild, tree which he wishes to claim he ties a leaf of one of his tankets to that tree. If he wishes to prevent others, who, other things being equal, have a right to walk across a certain piece of ground, from so doing, he thrusts a branch of his tanket into the pathway. This implies that he has buried a magic arrow in the ground to protect his personalty, and that anyone who passes the tanket will be 'shot' in the foot by the arrow. Unless the trespasser confesses and makes amends he is likely to die. In other words, tankets are used as "Keep off" signs to turn estate objects into personalty, and as a warning that supernatural means of obtaining redress will be used.

 12. This rule is ceremonially broken in the Yam-Taro ceremony, when the men 'steal' the new corn from the women's minkuri. As they do so they play the sacred flutes, and indicate that it is the ancestors who are taking the crops. The women cannot assault the ancestors, who have a prior claim in any case.

The close association between a person and his personalty is shown in many other ways. Thus sorcery which is supposed to cause a person's property to enter into the possession of the sorcerer is described as "stealing the soul". For this reason the box in which returned labourers keep their ornaments is kept firmly padlocked and is only opened when no strangers are present.

The presence of a woman's personalty in a village is taken as a sure sign that she will later return in person. A wife may visit her brothers for several months without this disturbing her husband, provided that she has left her trinkets and supplies of bark-cloth behind. On the other hand, if a wife tries to take these goods with her on what is ostensibly only a short visit, her husband will immediately act as though she has deserted him.

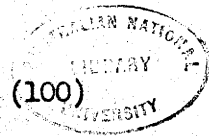
When a man dies, his personalty is said to "die" also. This means that his clothing and some of his ornaments go with the corpse to burial. His clothing is hung upon a tree near the grave and some ornaments are buried, though others are divided among those who perform the interment. Natives speak as though all his ornaments are buried, but in fact most of them are presented to mourners at the funeral, as are all the dead man's pigs, after they have been killed. His house is left derelict, or occupied only by the widow until the next Pig Feast. His tankets go to the person to whom he has previously "shown" them -- usually his son -- during

his walks round the clan land.

Pigs cannot be eaten by their amfonka, and such an act is treated with the same distaste and horror which is expressed at the idea of cannibalism. A distinction must be made, however, between the meat of a pig and its soul. Though the amfonka of a pig may kill it at will, he is responsible to the clan for transferring the soul of the dead pig into its progeny. The souls of the pigs must be placated before the Pig Feast in ceremonies involving gerua boards. In short, the amfonka of a pig's body is merely the merafo of its soul. If he transfers the pig's body to another person, he must either kill the pig first so that the soul is not lost, or he must ensure that the pig is eventually returned. This aspect of a man's relationship to his pigs will be dealt with more fully in later sections.

Certain duties are also implied. Thus if a man's pig breaks through a garden fence and eats the crops, he himself is liable for the damage. If his pig is killed by the fence-builder, he must accept this without complaining. In such a case, however, the killer of the pig has no rights to the body of the pig; he has revenged the assault on his fence and his wife's garden, and the pig's owner may come and collect the dead animal.

I have talked about the transfer of personalty as though this could be done at the whim of the amfonka. If the amfonka wishes, he may (subject to argument with his wife, perhaps) transfer ornaments, tools, pork or tankets to whoever he wishes, as has



been described. But there are many occasions on which individuals transfer personalty, when they do not particularly desire to.

The commonest of such transfers are temporary ones -- mere borrowing. If the amfonka of an object is not himself using an object, any other member of his clan may indicate his desire to use it, and the owner does not usually refuse him. New articles of clothing are worn by the owner for a few days, but within a day of his ceasing to wear them, several other members of the clan may be seen wearing them in turn. A new tool, owned by one member of the clan, will be used by all clansmen and quickly worn out. To some extent the owner is recompensed if breakages occur, for he is given a gift "to prevent bad feelings", but such gifts rarely equal the value of the damage. They do not prevent the private grumbles of individuals whose property is worn out by borrowers.

More permanent transfers occur when the clan must make a ceremonial payment, or kill a pig. There is often only one pig in a village which is of a suitable size for a ceremonial killing, and that pig is being kept by its amfonka for a forthcoming rite-de-passage. Nevertheless, if a suggestion is made during the discussion of the payment, that he should kill his pig, he will not usually refuse. So it is with ornaments provided for ceremonial payments; many of them are provided unwillingly by their amfonkas, as a result of suggestions by fellow clansmen.

Can these instances be said to modify the absoluteness of the amfonka relationship between a man and his personality? I would interpret the position and say that they do not. I see the person and his personality as being treated as one indivisible whole. Those clan obligations which are incumbent on the person, apply equally to his goods, and no additional rights to the goods are vested in the clan, over and above the rights which the clan has upon the individual. Amfonka rights are absolute rights over property and are vested in individuals.

The rights of a merafo are rights over land or over incorporeal things such as pigs' souls, the monitory speeches which are made in the men's house, the tunes which are played on the sacred flutes, or the designs which are painted on gerua boards. All of these objects were given by the ancestors, when they emerged from holes in the land. The merafo's responsibility as he looks after these objects, is to the ancestors. His association with the objects is validated by his connection with the ancestors and by his performance of rituals in their honour. The connection need not be directly agnatic, though it is usually so. Individuals can be adoptive descendants of the ancestors,¹³ and as long as they perform the ceremonies in honour of the ancestors no distinction is made between them and agnatic descendants.

I have already described (p. 31) the rights over incorporeal

 13. C.f. page 23. For a fuller discussion of how adoption results in individuals becoming absorbed into the kinship system see Salisbury 1956A.

property which are vested in a lineage head. Here I shall only deal with rights over land, and to show the varied nature of those rights I will start by describing what a lineage member may do.

Firstly it must be recalled that all members of lineage are the absolute owners of numbers of tankets, scattered over the area in which the clan lives. These tankets were not present when the original ancestors emerged to occupy the land, but were planted by specific individuals, many of whose names have now been forgotten but who are remembered as "Grandfather of Famti", for example. They constitute personalty which can be transferred or alienated by the individual. However, when these tankets were planted, they marked the boundaries of land which had been brought under cultivation from the virgin forest by the planters. This is the native theory, adduced to explain the fact that the tankets now form the boundaries of plots of land which lineage members may cultivate as they wish without consulting other members of the clan. They may enclose the land with fences and prevent other people from walking over it. They may build pig houses on the land without consulting outsiders. They may allocate a section of the land when it has been fenced and cleared of undergrowth, to any female they wish, be she resident in the clan village or not. The female then has the right to usufruct on that land, as an amfonka.

Each of these plots of land measures 30 yards by 60 yards on the average, and a lineage has these "exclusive" rights over between 100 and 200 such plots of land. The strips are variously located in all the cultivated areas of land within the three square miles within which the clan lives. Five or six of the plots are covered by pandanus or roi palms; at any one time six or seven plots are being cultivated as part of the large communal gardens, and another three or four form small gardens cultivated by individual members of the lineage. This is the average picture, but varies little; as one garden plot is retired from cultivation a fallow area is cleared for cultivation.

The amfonka rights to the tankets (kini in Siane), or boundaries (firinka in Siane) of a particular plot of land may thus be vested in individual "A", a younger brother of a lineage, since he was given them by his father; the plot may be cultivated by a different lineage members, "B"; there may be several other lineage members who possess the rights described above, among whom is "C", the lineage head. To the question "Who is the 'father of the ground' (mika merafo), all may with equal correctness say "I am", although an outsider is most likely to say "C" is. The question "Who is the firinka amfonka (owner of the boundaries)?" must receive the answer that "A" is; to the question "Whose is the rono (the word rono means "work", but, like the pidgin term wok can most often be translated as "garden")?" the reply is that "B" is.

The reason that "C" is most often cited as mika merafo is that he is the representative of the lineage to non-members of that lineage. In addition, he is usually the person who decides whether land will be cultivated or not, and who organises the work group if a garden is being made on any of the lineage land. He must, however, ensure that enough gardens are made for each lineage member to have a rono which he can give his wife to cultivate. He himself possesses the largest number of firinka, but when a small, individual garden is made for a junior lineage member, it is common for the lineage head to transfer his amfonka rights over the boundary tankets of that garden. If an individual makes his own small garden, without calling on the assistance of the lineage head, he may use any of the lineage land but he most commonly uses land whose boundaries he owns personally. The example which I quoted occurs only rarely.

There is no contradiction in the rights of firinka amfonka and mika merafo in most cases. They are both members of the same lineage, both work together in any garden clearing, and on the death of either their rights will remain within the lineage. The next lineage head will become the most important mika merafo, the next firinka amfonka may be a son of the dead one, or may be any other member of the lineage. Only if rights to the boundaries are given (as they may freely be) to a non-member of the lineage can there be conflict. In this case the lineage head may, with the consent of the other members, alienate the title of mika merafo from the lineage and give

it to the firinka amfonka. This had happened to two plots of land whose history I traced, but it was my impression (though I could naturally not get explicit confirmation of this) that the individuals who had received the title to the land were in the process of becoming absorbed into the lineages of the previous mika merafo.¹⁴

Over the rest of the three square miles on which the clan lives, the members of a lineage have other rights, also described under the global concept of their being "merafo of that land". If no tankets are planted there, they may clear the land, cultivate it, and plant tankets, which will thenceforth be the planter's personalty. Also, if there are no tankets planted, the lineage member may gather any wild produce, cut down any timber, or hunt any wild game. Without asking permission from anyone he may build a house on such land, and his pigs may forage on it.

If there are tankets planted, he may do the same things, subject to his having asked permission of the mika merafo if he wishes to cultivate the land, build a house or cut timber. The mika merafo must then show sufficient reason why he should not so use the land, if permission is to be withheld. If the trees were "unripe", or if the owning lineage were soon going to make a garden there themselves, permission would be refused. The commonest use of land whose most immediate merafo is of another lineage, is to build pig houses. If a man from one lineage has cleared a small garden he will probably have

 14. They were individuals for whom I could obtain only fragmentary genealogies, linking them with nobody. In the village census books their names appeared with the names of the lineage, however.

all his lineage's land in that area. If he wishes to build a pig house nearby he is forced to ask for rights to usufruct from the estate of another lineage. When an individual is exercising his rights to usufruct in this way, he cannot then be forced to vacate that land until his use of that land is completed. Thus a man, who has a rono on land to which another lineage has rights of exclusion, is secure in his tenure of that land until his last crop has been harvested. Then the land reverts to the lineage of the mika merafo.

If the lineage owning amfonka rights to certain tankets dies out, or if no one can remember who planted the tankets (as sometimes happens with infrequently cultivated land) than that land is treated as though there were no tankets upon it. Anyone who wishes, and who is a member of the clan, may clear it, cultivate it, and become firinka amfonka. Such land may be called "common clan land" and comprises almost one-half of the area occupied by the clan. It is composed mainly of moss-forest, but includes some of the lower kunai-covered slopes and marshy areas.

We may thus say that the area over which all clan members have rights to usufruct, subject to the rights to exclusion vested in lineages which may be exercised only if there is good cause, is "clan land". Its boundaries are partly natural boundaries such as streams or mountain ridges, and partly the tankets marking the boundaries of lineage plots of land. Such boundaries are not

straight lines, and islands of land belonging to one clan may be found within the territory of another clan. Exaggerated claims are commonly made by natives of any clan, about the extent of their own territory, but inquiry about specific boundary marks and the original planters of tankets obtains generally agreed answers. Some obvious natural boundaries have been present "since the ancestors emerged from the ground", when these divide non-immigrant clans of different tribes. The boundaries between Feramana clan of Emenyo tribe and the immigrant Rofafogu clan of Komunku tribe were demarcated when a legendary hero from Komunku tribe came to the assistance of the Emenyo clan, who were fighting their southern neighbours, and was allowed to settle nearby. He planted tankets which form the present clan boundaries.

The boundaries are spoken of as being immutable. During my stay, however, under Government pressure a few small exchanges of land were made to straighten out clan boundaries. These followed discussion with both assembled clans, and show that, even if boundaries were not, in fact, immutable in pre-contact times, alienation of clan land could only take place with the consent of the whole clan. The areas of land which the Government has taken over for Rest Houses are not considered as alienated by the natives. Tankets are still maintained as individual personalty, and, if my own experience is considered, Europeans living there are considered as visitors to the clan (if the visit is short) or as adopted members of the clan on whose land their house is built. In other words, the land is not alienated from the clan; the new occupant is absorbed

into the clan.¹⁵

In 1953 the Government made a payment to the luluai of one clan of Namfayufa tribe, to take over some land for use as an emergency landing ground for aircraft. This is the only case of outright alienation known to me. The payment received was partially distributed to the lineages who were mika merafo of the area, and about half was retained by the luluai (at least during the time of my stay, which was over before the completion of the work of levelling). This excited no comment and I take it as showing the native idea of how the various rights to the land compare. The rights to exclude other members of the clan, which are vested in each lineage, constitute one-half of the rights to the land; the merafo rights vested in all members of the clan, form the other half, and the representative of the clan, the luluai, is trusted to use the equivalent of those rights for the benefit of all clan members.¹⁶

The balance between the two kinds of rights is illustrated also when a clan decision is made to move the village to a new site. In such a case no lineage can refuse to permit its land to be used for house building by members of other lineages. The tankets indicating the amfonka rights of members of the lineage are not removed, but no

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15. Early in my stay I was once given "compensation" because, as a visitor, I had cut myself while on clan land. Later I became called Emenyo we rafo (Emenyo red man) -- a member of the clan -- or Fira merafo (father of the land called Fira).
 16. A separate sum was given to pay for trees on the land. This was included with the other money in the distribution, indicating, perhaps, that amfonka rights to trees are only valid if the individual is also mika merafo.

special privileges accrue to the owners, while their land is being used for other people's house-sites. A similar situation occurs when a men's house group decides to make a garden in a particular area. All lineages with exclusive rights to land there must help, or else suffer their land to be taken over by others. In general then, although a lineage's rights to exclude may, given sufficient cause, be invoked to over-ride the general rights to usufruct of another individual member of the clan, they may not be invoked if a larger group wishes to exercise those rights.

Over the land occupied by other clans of the same tribe the individual lineage member has some rights, subsumed under the general title of merafo. He may ask for permission to hunt, to gather wild produce, or to settle on such land, and expect to receive such permission unless sufficient cause be shown why he should not get it. The right to hunt is the one most commonly exercised. On one occasion a pig had broken into some gardens of Emenyo tribe, and was hunted on to land belonging to Waifo clan of Komunku. When the pig entered Komunku land, some Komunku men who had been watching, joined the hunt and the Emenyo men retired. When the pig was killed it was divided among the Komunku men of Waifo clan, and a man from a distant Komunku clan who had been visiting with Emenyo affines. The Emenyo men were excluded as not belonging to the same tribe.

The right to settle on tribal land is infrequently exercised since clans have their own territories. Once, apparently about 50

years ago, two southern clans of Komunku tribe wished to move to land nearer the ancestral Komunku home in the north. They moved to common land of a third Komunku clan, who permitted this and gave help in building new villages.

The importance of these "tribal" rights is only seen when one considers the reaction to attempts to hunt or gather produce on tribal land, on the part of members of other tribes. When some Emenyo men passing through Yankariti tribe picked up some brushwood to make a fire they were attacked and forced to pay compensation. When men of the Chimbu tribe of Mami cut timber and shot two birds-of-paradise in the Komunku moss forest, an ambush was laid to kill the offenders if they returned.

Outside the tribal area a man has no property rights. A man may ask his mother's brother for permission to build a pig house on his land, if his own tribal land is worm-infested or infected with anthrax. Such permission is commonly granted as a favour. When a second member of a sister's son's clan asked for permission to build, in one case I witnessed, this was refused as the owning clan said "Our land is better than theirs: soon they will all be coming and taking our land". Similar favours are commonly given to clans driven out of their own territory in warfare. When the visitors return to their own land after the peace-making they give pigs to their hosts, in thanks.

From this description it can be seen that many individuals can call themselves merafo of any particular plot of land, and mean

different things thereby. To understand which rights are implied by the term merafo, one must understand the context of the conversation in which the statement is made. Thus if one is talking to a member of a different tribe, to say "The land is mine", need imply no more than that the speaker has the tribal rights to hunting and gathering wild produce. If the statement is made to a member of another clan of the same tribe, it need only imply the ownership of clan rights to usufruct. If it is made to a member of a different men's house of the same clan, it need mean only that a lineage of the speakers men's house has the rights of exclusion from that plot of land. If one is speaking to a member of a different lineage of the same men's house one implies that the rights of exclusion are vested in one's own lineage. If one wishes to designate further rights one must say "It is my rono", "They are my firinka", or "This is my wife's minkuri".

In a situation where one is asking a third party whose land a certain area is, the answer will be determined in a similar way. If the relationship between questioner and respondent is such that the respondent would have referred to his own tribal rights, had he had any, he will give the name of the tribe whose land it is. All an Emenyo man would tell me about Komunku land was that it belonged to Komunku. Where a direct answer would have referred to clan rights, the answer of a third party will specify a clan as merafo, or possibly give the name of the lului. Where the direct answer would have depended on common men's house membership with the lineage

having rights of exclusion, the answer would give the name of the men's house, or of its bosboi. When asked by a member of a lineage of the same men's house, about land over which a third lineage has rights of exclusion, the answer would consist of the name of the lineage yarafo.

In short, the land tenure is of the kind common in segmentary societies. An individual has rights over land by virtue of his membership in hierarchically arranged groupings of increasing size. The totality of rights is of the kind called "overlapping stewardship". The answer an individual gives to questions about land ownership depends on the level of grouping in which both he and the questioner have membership. If then the respondent has rights by virtue of his membership of a more exclusive group ^{in?} he will assert them. If neither the respondent nor the questioner have any prior claims, then the respondent will give the name of the next smallest grouping which does.

In this system inheritance has already been described incidentally. Amfonka rights either lapse with the destruction of property at the death of the owner, or are transferred absolutely to another individual, usually the eldest son. They may be transferred before death by an old man who retires from public life and "sits idly in the sun". They may be transferred tacitly as a father "shows the marks" to his son, as the youth assists the father in cultivating the land, and then publicly assumed when the son makes presents to the mourners at the father's funeral. The merafo rights to an estate are not inherited, they are succeeded to, by whoever takes over the

"social personality" (c.f. Nadel 1951:97) of the dead person.

If a bosboi dies, the name of the new bosboi will be given as mika merafo in circumstances where the name of the old bosboi would previously have been given. A dead lineage head's next oldest brother takes over his role of guardian of the lineage land.

One deliberate omission in the catalogue of objects which are owned, should be noted. Except for crops growing in the fields, no mention has been made of ^{the} ownership of food. Women are the amfonka of the crops while they are growing, and men own the "male" crops as individuals. But when those crops are harvested the concept of ownership no longer seems to apply. When I asked about amfonkas or merafos I met with puzzlement, and was told "They are things of no account" (Faivya neta ne). The only answer connecting individual women with harvested vegetables came when I asked about small piles of vegetables which individual women brought to a small first-fruits distribution, and proudly displayed. "Yes. She looked after the sweet-potatoes" was the answer. The term for "looked after" -- hentaiye -- is the same term as that used for what a merafo does to land. I interpret this as meaning that food, when once it is harvested, is an estate over which all members of the clan or tribe have rights, subject only to exclusion on good grounds by individuals with more immediate rights. It is in this light that one can understand the obligation on a woman to give food to anyone who calls her "Mother", and the distributive

mechanisms described in the next section.

The term faivya neta also needs closer consideration. Faivya (pidgin nating) means "nothing; of no importance; useless"; neta (pidgin samting) means "thing; something". Faivya neta is commonly used as a deprecatory remark "It's nothing", but here it must be contrasted with the use of the word neta which is used to describe shell ornaments, axes, or pigs. Other objects such as baskets of nuts, gourds of oil, cakes of salt, tobacco, and small articles of clothing are called kevora neta (small things). These categories of "things" will be discussed more fully later; here it must be noted that neta and kevora neta are objects over which individuals have amfonka rights. Crops other than nuts and oil are not owned as personalty, and are categorised as "nothing things". Like land, they are not "useless". Quite the contrary, they are essential, but as with land, good reason must be shown why any person should deprive any other clan member of them. When they are given to others, the same term is used -- umaiye -- as for "to help" or "to substitute for". When they are given they are given as part of a pre-existing obligation, and the giving of them does not set up any new obligation to return an equivalent. No strict account is kept of them, and no ritual is attached to the giving. Only persistent refusal to share food, to help with work and to fulfill clan obligations can cut an individual off from the help and support of other members of the clan.

Thus the merafo relationship to land and the categorisation

of food as "something of no account", can be seen as the ways in which Siane property concepts ensure universal access to the factors of production, and a fair share in the results of production.

The scattering of lineage land over the whole clan area ensures that there is a distribution of all types of land, good and bad. If a man has no suitable land for making gardens he may exercise his clan rights to usufruct. The lineage holding exclusive rights can only exclude him if their own access to productive land would be harmed by his presence and cultivation. Use of the land is guaranteed until the crop is harvested. Every woman receives smaller plots of land to cultivate, either from her husband, or, if he is dead, from the lineage or from the larger communal gardens. Her rights are over what she has worked upon, and revert to the men when her work is completed.

The distribution of food

As has been described, women harvest the crops, cook the food, and take it to the fence of the men's house in the evening. The food is passed to their husbands, who share it with their sons, and return any surplus to the women. Such indeed is the simple picture, but I have already indicated that there is sharing of the work of cooking between women, and also division of what is cooked by one woman, so that several women may carry food to their husbands. Such a system ensures that food reaches the men in the men's house when wives have gone visiting, or have been incapacitated from cooking by their menstrual flow.

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When husbands receive food from their wives, they place the food in a heap in front of them, and are soon surrounded by their sons and lineage mates. Before they eat, however, they give some food to all men who are present in the men's house clearing. If others come in while eating is in progress food will be given to them too. Only then do the husband's lineage/receive their portions, or take sweet-potatoes from the heap. This distribution of food is primarily to other members of the same men's house, since they may be expected to be present, but no distinction is made and members of other men's houses or different clans are given food if they are present, or only passing through. "If they saw us eating, and they did not eat, they would feel badly" say Siane men. The invitation to eat is "Umutoko no" -- "Eat what is given by umaiye (and do not think of making a return gift)" -- and to be a person who says this, is to be known as generous.

The distribution ensures that no man of the clan need be without food even if he has no wife to bring him any, either temporarily or permanently.¹⁷ The distribution to outsiders is of little material significance for the quantities involved are small, and, on balance, the random pattern of visiting¹⁸ means that a clan receives as much food in hospitality as it gives to visitors. More important is the entertainment of guests at ceremonials, who number up to 200 individuals and who always come from other villages. In the long run, clans

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17. Permanent widowers resent their dependence on "handouts", however, and commonly cook their own food and eat it outside the men's house. They are few in total number.
18. Some effects of a non-random pattern of visiting will be discussed in Chapter 6, in connection with work for Europeans.

are hosts as often as they are guests, and such entertainment does not result in any net gains in the amounts of food accruing to particular clans. But on such occasions individuals, both hosts and guests, eat about twice as much as they do on ordinary days. All that is necessary to meet this demand for food is that each wife of the host village harvest four times as much as she does on a normal day. She does no other garden work, returns home from the gardens about noon, and brings the food to the men, who distribute it to the guests, in the early afternoon. Ceremonials are occasions for increased food consumption, but the system of collection and distribution which is geared to providing a steady sufficiency of food, can cope with the fourfold increase in demand without undue strain and without affecting the mechanisms used.

Pig Feasts are a special case of this form of distribution,¹⁹ for while a ceremony is in progress the village population approximately doubles for a week or more. Vegetable food is distributed even more indiscriminately and can be taken by anyone who is hungry. The work of preparation, collection and distribution is eased by the fact that communal seven-acre gardens are planted close to the village during the preceding six months. Enough food is available, the women do not have to walk far to gather it, and there are intervals of a day between the dances that all people participate in. No one pays much attention to the vegetable food, yet everyone eats his fill.

19. The distribution of pork will be discussed later.

A different form of distribution occurs in First-Fruits ceremonies, ceremonies when large gardens revert to bush, and the presentation of food to the clan of the groom a week after a bride has gone in marriage. On such occasions the vegetables are given away uncooked, the bulk of them are the relatively storable crops of yams, taro, bananas and sugar cane. The quantities involved amount to about 3,000 pounds for each men's house in the first two ceremonies, (or about 5 tons for each village), and about 1500 pounds for the presentation "to the bride".

The food is collected for several days before the final distribution of it, and is stored near the women's houses. Women are appreciative of any comments about the crops they have raised, but men appear to ignore their preparations. On the day of the ceremonies the women carry the food into the men's house clearing where it is all piled together, or, in the case of a ceremony at the abandonment of a garden, piled by the men on to a 30-foot structure of poles. The mass of food is then handed over by the bosboi of the host men's house to the bosboi of the guest men's house amidst speeches. The presentation is greeted with cheers of "Mika mika e-e-e-e" (Land, land).

While the rest of the system of food production and distribution is geared to providing a sufficiency, plus a margin for entertainment, for all members of the clan, these are occasions on which there is a planned surplus. The surplus is disposed of, as far as the producers are concerned, by giving it away, uncooked and not as unaccountable

cooked food, to another clan. All that clan can do, at the time, is to compliment the land, the fertility of which can produce such a superabundance.

Even in the gift of food "to a bride", though the quantities are less, the same formal presentation, and excess over possible consumption needs can be seen. These distributions do not compare with the normal pattern of activities in the subsistence nexus. The anomalies will be discussed more fully later.

After the producers have disposed of their surplus, the recipients must then distribute it further. The food brought to a bride is given by the bosboi who received it, to the wives of men who "helped" the groom in making his bride-price payment. It can be seen as an acknowledgment of the groom's clan-obligations to those men (although in no sense does it fully discharge them,) in the same way as the gifts of food to a work-group do. The vegetables are then included with the food the women harvest, and are consumed in a few days.

The food received at a first-fruits ceremony is not so easily disposed of, but for days after the recipients have returned home, parties of men go out, accompanied by their wives who carry huge bags of food, to visit and give gifts to married sisters of the clan. The source of the food is known, and the renown of the producers may spread, with their crops, to as many as ten villages. 10,000 pounds of food is soon eaten by 2,000 people, and there is no waste.

Consumption

Food seems to be consumed in Siane at all times, from early morning, while walking to the gardens, as snacks or "drinks" during work, as food brought by a wife to the men's house, and as gifts until the last man has received his food there. Observation of individuals to determine how much they eat is clearly impracticable. Observation of the amounts of food taken from gardens is as difficult in the absence of any one cropping period or any storage of food.

The only time when food is collected into sizable units is while it is being cooked, and thus the easiest way to estimate the amount of food consumed would be to observe the contents of the tree-trunk ovens of a village. After I had had much experience in estimating (and checking by a spring balance) the weights of vegetables brought to me to buy, I checked the amount of food in ovens of one village on five evenings of one month. Although my figures may be underestimates, since they are based only on what I saw, the average amount of food cooked in the village each evening was as follows: -

270 lbs. sweet potatoes
 30 lbs. maize
 20 lbs. taro and yams
 90 lbs. green vegetables²⁰
 10 lbs. cucumbers
 small amounts of pandanus nuts.

These figures represent only what is consumed by people resident in the village during the evening, or (c.f. p. 20) about 85 adults and 56 children. If one calculates that a child consumes one-half of

 20. In this sample the amounts of pitpit, native spinach, and beans averaged 45, 35 and 10 pounds respectively. The relative amounts would probably change at different stages in the garden cycle. I do not think the other figures would.

what an adult does, this represents a consumption by each adult of:

- 2.5 lbs. sweet-potatoes
- .26 lbs. maize
- .17 lbs. taro or yams
- .8 lbs. green vegetables
- .09 lbs. cucumbers and a few nuts.

I would estimate further that an adult eats about another pound and a half of sweet-potatoes for breakfast, one-half pound of cucumbers and two pounds of sugar-cane as "drinks" during the day. To these figures must be added the extra consumption at feasts, and the amounts given away at glut distributions, plus the amounts of pork and other meat eaten occasionally. An individual is either guest or host at a rite-de-passage feast and eats an additional evening's food about once in three weeks. He spends about 21 days every three years at Pig Feasts and thus eats an average of an extra day's food every 50 days. A clan gives away about 10,000 pounds of both sugar-cane and yams or taro in first-fruits and garden abandonment ceremonies which are held about annually. Per adult this amounts to about .16 pounds of each per day.

The amount of meat provided by the hunting of game, or the killing of chickens is an insignificant contribution to the diet. Pork reaches the consumer by a complicated distribution system which will be described later, suffice here to say that clan members share pork which is received by the clan at ceremonies. In a year I counted that one village received 15 pigs from three weddings, 10 pigs from five funerals, 5 pigs from other rites-de-passage, 3 pigs at peace-makings, and 4 in sickness-curing ceremonies, or a total of 37 pigs.

Other clans killed between 150 and 200 pigs at their Pig Feasts, so that presumably every clan receives about the same number during the course of three years. The pigs tend to be received in large numbers at some periods, and not at all at others; even the weddings and funerals do not ensure a steady supply of meat, but over a three-year period a clan receives a total of about 300 pigs. Siane pigs average about a hundredweight of meat, so that, on the average, adults eat about .17 pounds of meat per day.

Totalling these figures, my best estimate of food consumption per adult per day, over a three-year period would be: -

4.2 lbs. of sweet-potatoes
 $\frac{1}{4}$ lb. of maize
 $\frac{1}{3}$ lb. of yams or taro
 $\frac{7}{8}$ lb. of green vegetables
 $\frac{2}{3}$ lb. of cucumbers
 2.2 lbs. of sugar-cane
 $\frac{1}{6}$ lb. of pork and a few nuts.

If these figures are correct, they represent a diet of over 3,000 calories,²¹ or more than sufficient to maintain health in men weighing ten stones, as do the Siane men. Siane women weigh less. In terms of protein and fats, the diet is probably somewhat deficient. Since periods of great activity are also times of high food consumption, the problem of food getting must be considered solved in Siane.

In general the distribution of food is loosely organised, and food is given freely to all and sundry, with individual strangers

 21. Sweet-potatoes 2266, maize 90, taro/yams 70, "greens" 70, cucumbers 20, sugar-cane 400, pork 200. Figures based on Bonomo (1952) assuming the calorific value of taro to equal that of sweet-potatoes, and that of "native spinach" to equal that of European spinach; sugar content of cane as 3 ounces.

treated like members of the host's clan. The exceptions to this general rule occur when large planned surpluses are produced, and given to another clan, present as a corporate group, in an uncooked form, and with ritual.

Productivity.

At any one time a clan has under cultivation 4 large gardens, each of about 7 acres, and about 50 small lineage gardens of about 1/4 acre each, a total of over 40 acres. This area produces food for a period of about 18 months. In 18 months the amount of food needed to support an average village of 200 men, women, and children on the diet I have outlined would be as follows:

166 tons of sweet-potatoes	(4 tons)
12 tons of maize	(.3 tons)
14 tons of taro or yams	(.4 tons)
35 tons of green vegetables	(.9 tons)
25 tons of cucumbers	(.6 tons)
90 tons of sugar-cane	(2 1/4 tons)

I have indicated in brackets at the right what this means in terms of production per acre. I have no figures with which to compare these estimates, but if a comparison were made with the productivity of European farms in the New Guinea Highlands,^{21a} it must be borne in mind that all of these crops are produced by one acre under Siane cultivation, and not just one crop alone. Given the difficulty of the terrain, I feel it is a creditable yield.

Summary of the subsistence activities.

The subsistence activities consist of the exploitation of a difficult terrain in an agricultural cycle involving 18 months of

21a. Schindler (1952:306) obtained 8 tons of sweet-potatoes per acre and one ton of maize per acre at the Agricultural Experimental Station, Aiyura.

cultivation of cleared plots of land, followed by 15 years of fallow under casuarina trees. There is a sexual division of labour, on the basis of men doing work requiring the use of axes, while women do other routine tasks. The clan is the largest unit working together for subsistence tasks, but smaller groups of 30 or 10 men are the most common groups within which there is a division of labour. Except for some small token help from outside the clan, which is made light of, the clan is a self-sufficient productive unit.

Labour is made available to all clan members by the existence of clan obligations to help. The system of land tenure ensures that all clan members have free access to that factor of production, and are guaranteed the right to reap the product of their labour on the land. The food which is produced is then distributed freely throughout the clan as part of the same system of clan obligations, and is categorised as faivya neta, or "a thing of which no account is kept". The only other factors of production, tools and houses, are owned absolutely by individuals as neta or "things". The part they play in the total economic system will be dealt with separately.

In short, the subsistence activities in Siane could generally be described as those of number of a self-sufficient clans, each one working independently, and each one organised to provide its members with equal access to both the factors and the products of production.

The exceptions to this general picture must be noted. They

include the absolute individual ownership, not only of tools, but of ornaments and some articles of food such as nuts, roi, salt and tobacco, of neta and kevora neta. They also include the occasional presentation of large quantities of uncooked food to persons who are not members of the clan. Figs, which we should regard as subsistence commodities, have not been discussed except to indicate the activities performed in their raising, the concepts of ownership which apply to them, and the way in which their meat, when it is received from other clans, forms part of the diet. The reason why these exceptions constitute anomalies will appear later.

In using the term "self-sufficient", I have begged a question, by assuming certain "material requisites to well-being". In the mere discussion of subsistence activities I have assumed they are "economic". Both of these assumptions need some consideration.

The material wants of clothing and shelter are few. During the day clothing is not necessary (except for reasons of modesty) except when it is raining. Men choose not to venture out in the rain; women put their palm-leaf mats over their heads. It is cold at night and few go out. The form of the houses with their low roofs and thickly-insulated walls creates excellent heat traps which stay warm at night. The indoor fires keep down the nuisance of flies and the non-malarial mosquitos, while there is adequate ventilation for sleepers with their heads close to the ground. Sanitation is minimal, but the bush is large and requires fertilising.

The resources of the environment are clearly used in specific ways denoting a choice as to which one will be used, and if one compares other alternative ways of meeting the same "needs" the choice is an economic one.

A more lasting or healthier method of house construction, such as Europeans use would have required warmer clothing or vast supplies of firewood; more storable vegetables which would have obviated frequent walks to the gardens would have necessitated, for example, cutting large numbers of yam poles, and might well have caused erosion; the use of warmer clothing would have presented drying problems in the frequent rains; larger social groupings would have necessitated their greater separation, and have made the journey to the most distant gardens impracticable.

An economic choice is also evident in the way in which production is planned, over time, to provide a fixed quantity of food, plus a margin for entertainment and, at times, a huge surplus for distribution. It would be foolhardy to say that the very size of the population represents an economic choice, given the gardening cycle, but in the course of time a balance between available resources and population has been reached. Thus I have shown how 40 acres under cultivation supports a population of 200. Another 400 acres must lie fallow, while perhaps 20 acres are under fruit trees. A clan area of three square miles, half of which is unworkable moss-forest, rocks or precipices can thus support the existing population

and leave room for expansion. The tribe of Aranko has only some 16 square miles to support 7 clans, and their territory is exceptionally precipitous and forested. This is about the maximum density possible, and there were signs that this was being noticed by natives during my stay; men were migrating to other tribes where lineage plots of land were larger and more numerous.

In other areas the existing system of economic choices in the subsistence activities could continue indefinitely without impoverishing the soil.

II. Luxury Activities

These activities have been tentatively defined as being the production, distribution and consumption of certain luxury commodities. They involve excitement and pleasure, but are not public events involving whole clans, for the most part. The commodities have also been described as being owned absolutely by individual amfonka, and as being referred to as kevora neta or "little things".

The most common luxury commodities are tobacco, roi palm-oil, pandanus nuts and salt. Other articles such as snake-skins for drums, fine stone for axe blades, palm wood for spears, and nowadays some European articles are treated in the same fashion. Tobacco grows best in western Siane, and in Chimbu beyond the Erimbari ridge, but some is grown everywhere. Roi is grown principally in the marshy valleys to the south of Siane; pandanus nuts grow best in the higher northern mountains, but small amounts of both are grown in most villages. Native salt is extracted from salt springs outside the Siane area, to the south and west,²² although small quantities can be produced everywhere by a little-known process of burning grasses and leaching out salt from the ash. Axe stone comes from the north-east near Korefa tribe; snake skins from the far south, as does black palm-wood. All these commodities are thus not uniformly distributed over the Siane area, and to some extent their distributions are complementary.

 22. There were no salt springs in Siane. From the descriptions of informants the method of purification would seem to be that described by Vial (1938:16).

Tobacco is grown inside villages, in the areas around each woman's house. Men snip out side shoots as they pass each day, and when the plant is fully grown, cut it and hang it up whole inside the men's house beside their own beds. As soon as the leaves turn brown they are used for cigarettes, except sometimes to the west, where the leaves are stripped off singly and packaged in bundles. Here men will commonly give a bundle of tobacco to a sister's son when he departs after a visit to them.

When roi fruits are ripe they are composed of hundreds of small red fruitlets, adhering to a central core. The fruits are cut from the trees, wrapped and carried to the village, and the fruitlets are scraped off on to banana leaves. Carefully folded in the leaves, the bundles are steamed until they form a pulpy mess. This mess is squeezed in barkcloth to extract a bright red oil, which is stored in gourds or bamboo containers. The residual pulp is eaten as a delicacy.

The small pandanus nuts, each about three inches long and a half inch in diameter, grow bunched in large spheres which resemble coconuts in appearance. They are harvested in two forms; as large fruits cut from the trees when almost ripe, and as individual nuts gathered when they have dropped ripe to the ground. The large fruits are delicacies which do not keep. They must be split in half with an axe, have the inside core roasted over an open fire, and the outside cover singed off to expose the nuts. Natives carry

split fruits with them, cracking off individual nuts and drawing out the kernels, like Europeans eating sweets from a bag. Fully-ripe nuts are dried in the sun for several days (and they need to be watched against the rapacity of birds), wrapped in quantities of kunai-straw, and tied into bundles with strips of bark and cane. The resulting basket-like storage containers vary in size and shape. The largest are shaped like cheeses, 2'6" in radius and 18" high, and hold about 40 pounds of nuts. Together with oil gourds, such baskets are hung from the rafters of the men's houses, over the owners' beds, out of reach of the mice which can make short work of 40 pounds of nuts.

For the seasonal harvests of roi and nuts the owners of the trees are assisted by their mothers' brothers or sisters' sons, who come for prolonged visits at such times. Such help is reciprocated when the other crop is due. Helpers at the roi harvest take with them quantities of bark-cloth and gourds; helpers at the nut harvest need no tools. They are freely entertained by their kinsmen during their stay. When each harvest is completed the owner of the trees gives his helpers presents of large quantities of the crops -- two or three gourds of oil, or the same number of bundles of nuts. Since owners of roi trees tend to visit kinsmen who own nut trees, and from whom they receive nuts, and since the nut-owners later visit the roi owners and receive oil, a system resembling trade or barter can be seen to arise. When natives talk about such harvests, however, they stress the "help" that is

given (umaiye), and minimise the presents.

Although mothers' brothers and sisters' sons form the bulk of the harvest help, many men go to help their emona we. Literally this term means "his male sister", and it is often translated into pidgin as pren ("friend"). It can be applied to a sister's husband, a wife's brother, or to more distantly related persons whom one wishes to acknowledge as kin. Such a relationship can be set up by a betrothal of children, when the fathers may call each other emona we. In short it is a nebulous relationship whose importance consists chiefly in the exchange of goods and services which it facilitates. A man often has an emona we in an area where such out-of-the-way commodities as python skins are obtainable.

One other form of luxury-harvest help must be noted. Some clans maintain tenuous kin relationships with other clans, based on legends of the migration of those clans to distant areas. Once a year when the luxury-crop of one clan is ready, the other clan comes to help "their brothers". Parties of about 30 men, 15 women and 15 children walk for about two days to the village of their "kinsmen", where each individual is entertained by a "friend" in the host village. After a week's work harvesting, the helpers are given presents of the crop before their return home. Each individual host makes a present to his particular guest, but all the presents are pooled. One of the host bosbois takes up each present from the pile, and calls the name of its recipient, who comes to collect the present in the presence of the assembled hosts and guests. This form

of "presentation" is termed gimaiye; the difference between it and "giving" (umaiye) will be discussed later. When the presentations are over, the helpers depart. Their help is reciprocated when their own luxury crops are ripe, and when they can reciprocate with presents of a different crop.

Such clan "trade-partnerships" connected one southern Komunku clan, and an Asaro clan from which the Komunku clan was reputedly a migrant offshoot. In 1953 the Komunku clan gave nuts and roi oil, and received European trade goods, but in earlier times they had received stone for axes. An Emenyo clan had relatives who, legend said, had split off and migrated south of the Waghi, in what was in 1953 uncontrolled territory. Emenyo received roi oil and black palm-wood, and gave nuts and, in 1953, steel axes and coloured handkerchiefs to the uncontacted southerners.

Salt is not produced in Siane and I saw no expeditions to obtain any. Informants describe how a few "big men" of a clan wishing to obtain salt have "friend" relationships with "big men" in distant salt-producing villages. They collect parties of about ten men, and, carrying several pigs strapped to poles, walk to the producers' village. There the pigs are killed, there is great festivity and much entertaining, the guests do not do any work (the site of the spring is a closely guarded secret), but presents of cakes of salt are given at their departure. Each producing village makes cakes of a distinctive shape, but generally these are circular, about ten inches in diameter and three inches thick with a depression in the

middle. They are wrapped in pandanus leaves, and loose basket-like containers 18 inches in diameter and 6 inches thick for carrying and storing. Return visits by salt producers did occur occasionally, but were not as frequent as the visits of salt consumers.

Since the number of cakes of salt presented on departure of the visitors matched the number of pigs brought and killed by the visitors, it might be thought that a simple buying and selling relationship existed.²³ But the exchange aspect of the relationship is played down by informants, who stress the visiting, the number of pigs killed in the entertainment (omitting to mention until challenged that the guests provide the pigs), and the generosity of the hosts in presenting salt to their friends. Only close questioning forces an admission of the approximate equality of the presents which are given.

Distribution of tobacco, nuts, oil and salt is thus normally conducted by individuals making presentations of them to other individuals, who have come to visit as mother's brothers, close affinal relatives, or as friends. Even when such persons come to visit without assisting with work, they are given small presents -- a woven cane armband, a small shell trinket, or some tobacco for example -- on their departure. Such presents indicate the donor's sorrow at the departure of his friend, and are given freely by umaiye. This implies that no strict account is kept of what is presented, since

 23. European salt has not entirely displaced native salt, and the "trade" still continues. Native salt is said to "bite" more, and, when it is chewed with ginger roots and spat over meat, it is needed to make the meat "hot" in certain ceremonies.

the presentation is only one item in a set of obligations of a more diffuse kind, summed up by the term "friendship". This relationship is more formal than that between members of the same clan, and so is the mechanism of umaiye, for the present will usually be given after a speech by the donor. When more than two individuals are involved the emphasis on "presentation" is more, and that on friendship less. Speeches are made, names are called out, and the presentations made by the bosboi in a village "trade" expedition. Here the umaiye giving is so formalised it has become gimaiye presentation.

In a relationship where free-giving is the rule, reciprocity is maintained by diffuse social sanctions and by the ultimate sanction of ostracism. In the distribution of luxuries these pressures are reinforced by direct self-interest. Only if visitors return home satisfied will they be generous with their gifts at the host's next visit. Once, after an Emenyo clan had made presentations to a visiting group from the uncontacted south before their departure for home, silence followed the presentation instead of a speech of thanks. The awkward silence was broken when one of the hosts gave a length of red cloth to the visiting bosboi, who then made his speech. Without speaking the guests made it evident they were dissatisfied with what they had received. The hosts then added to what had been given, rather than risk the loss of their supplies of roi oil.

Luxury commodities are mainly consumed in the entertainment

of visitors. When a visitor arrives he is offered foods, such as sugar-cane or cucumbers, but also luxuries like tobacco. He is seated on a clean log and given nuts, and for his evening meal his sweet-potatoes will be salted, although his host's lineage eats them unsalted. On arrival and again before departure, he is washed with roi oil. On special occasions -- when parents-in-law visit their daughter's husband, or when mourners arrive coated in clay for a funeral -- luxuries are provided in excess of normal. Salt is applied "till their throats bite", and oil is poured over heads till it drips to the ground.

When a clan is entertaining as a corporate group -- at a funeral for example -- there is no previous discussion to bring social pressure on individuals to contribute. No disapproval attaches to the person who has nuts, but does not use them for entertaining visitors. Even so, "big men" provide large quantities, although they may belong to a different men's house from the man who has died. They receive no direct return for their contribution to the entertainment, only the satisfaction of increasing the clan's reputation for generosity, and of demonstrating their public spirit and concern with the clan's welfare.²⁴ Every man has some stocks of these commodities, but while some use them to entertain private guests, to gain a reputation for generosity, and to increase the size and frequency of the gifts they receive when they visit, others use them for the gain of the clan.

 24. I found that the most effective way to obtain a participant role in any ceremony was to make a contribution of the luxury, salt. I became a "host", participated in discussions, but received no direct return for my contribution.

Not all luxuries are used in entertaining guests, however, for small amounts are regularly consumed in the course of everyday life. Everyone smokes, whenever there is a break in work. When nuts are in season, the roads are littered with shells, thrown away as people nibble nuts on their journeys. On special occasions -- when youths return from a therapeutic blood-letting, when women complete a menstrual flow, or men successfully settle a legal case -- people wash themselves in roi oil. Children are frequently washed in oil "to make their hair grow black", and are often given lumps of salt to eat as tidbits. In short, just as one indulges visitors, so can one indulge one's children, or, if the occasion warrants, oneself. It is a matter of personal choice in the manner of employment of tangible "small things", which are absolutely owned by the individual.

In short, luxury activities primarily concern the production, distribution and consumption of commodities by individuals, and not by groups of people. These commodities are not evenly distributed throughout the area, and no individual is self-sufficient in them. Instead, individuals use kinship, or fictitious kinship ties to obtain what they want from other individuals. The system of distribution works, not by an accounting system, but because self-interest leads individuals to wish to keep their partners satisfied, and thus preserve the diffuse relationship.

When large groups of men combine to obtain luxuries we find an anomaly in that objects are given, not by informal umaiye, but in

formal gimaiye. When the luxury is as scarce as salt, we find another anomaly in that pigs are given in exchange for a luxury, when they themselves are not luxuries, and in that a stricter accounting system is in evidence. Why these anomalies should occur will be discussed later.

III "Gima" Activities

The tentative definition of gima activities was that they were public events, involving the handing over in a ritual way of commodities termed "neta" or "things", which are owned absolutely by individuals. I shall describe these objects as "valuables".

Before Europeans discovered the Highlands, valuables consisted in pieces of various types of shell (mainly gold-lip but also some small cowrie, nassa, and other shells), chips of cassowary egg-shell sewn on to bark, or threaded like beads, ornamental stone axes,²⁵ necklaces of dog's teeth, bird-of-paradise plumes, and headdresses of cassowary feathers.

Natives pointed to the north-east as the source of shell, but, until labourers went to the coast, knew nothing of the sea or sea animals. Cassowaries were few in number, being difficult and dangerous to keep, and in 1953 there were 3 cassowaries in an area whose human population was 3,000. Egg-shells and plumes were similarly

 25. These resembled the so-called Mt. Hagen axes (c.f. Gitlow 1947), but were extremely rare in Siane and I was never shown one. When I obtained one outside the area I was told that it was just like "the good old days" (pesin bilong bipo), and it was much admired.

limited in quantity. Ornamental stone axes came from the far west (leahy & Crain 1937:148). Villages, even in 1953, had only three or four dogs, and since only canine teeth were used for necklaces, each one of which required about 200 teeth, it can be seen that the quantity of necklaces produced was minute. They were, in fact, worth more than other valuables. Every year three or four birds-of-paradise might be shot locally, but the plumes, unlike shell or stone, decay from mould and mice, while once they have dried out, the rain harms them. In short, the production of valuables of these kinds was extremely small, and probably did little more than replace the amounts destroyed through decay, loss or burial with their dead owners.

Pigs constituted the one valuable which could be produced in any quantities. The work connected with pig raising has already been described (p. 94-5) as involving the male amfonka's first securing the piglets and claiming ownership, and then his dependence on his wife for tending the animals. A man starts raising pigs by borrowing a young sow either from his father, or from another clansman. The young pig is tended by the man's wife (or mother if he has no wife), mates with some boar in the bush, and eventually produces a litter. One piglet is given to the original lender of the pig, as a full return for the loan, and any increment is the property of the man who fetched the litter of piglets from the bush. One sow loaned is repaid by a sow of any size returned, although the borrower may return more if he chooses. This is normal for loans of pigs both to fellow clansmen

and to outsiders.

Thus one unmarried youth, who had obtained a pig when his father died, left the pig with his classificatory father when he went away as an indentured labourer. During his absence the sow had three litters, each of six piglets. When the youth returned he was told that two of the piglets were his, although they remained in the care of the "father's" wife. When the classificatory father later killed the large sow for the wedding feast of his own daughter, the youth could do nothing about it, though he did grumble.

Loans are often made by a man to his wife's brother or to his mother's brother, although these might be better regarded as a "farming out". Thus anthrax may break out in the pig-owner's village. If he does not choose to move his entire household to another village until the epidemic is over, he may send some pigs to be looked after by each of several other villages. This obligates his affines or maternal kin to return that number of pigs later on, so that even if all the pigs in the afflicted village are wiped out, he is assured of a certain number of animals from which to breed.

Another reason for "farming out" is to disguise the number of pigs which one owns. If a man keeps many pigs in his own village, he will frequently be called upon to contribute pigs to ceremonial payments. Although to do so is prestigious, many unimportant men in a village prefer to have pigs of their own, available if some urgent need arises. This they can only do by maintaining secrecy about the numbers they own.

Some pigs are farmed out as an almost permanent loan, where both lender and recipient acknowledge the debt, but neither takes any steps towards effecting repayment. Such loans are common between a man and his wife's brother. Then the wife's brother has a pledge that the husband will make the appropriate payments at the birth of children, and will not harm his wife. The husband has an acknowledged claim over the brother's pigs, and, if the wife deserts her husband, her brother may prefer to make her return rather than surrender his pigs. In this way the loaning of pigs, and the indebtedness involved serve to maintain the existing relationship between the husband, his wife, and her brothers.²⁶

It might be guessed from this description that large numbers of pigs are kept by everyone, some owned personally and others being looked after for others. In actual fact few individuals, except those with new litters of piglets, have more than three pigs in their possession at any one time. A survey of the village in which I lived gave the following numbers of pigs owned by each household head: -

5 households had no pigs
 14 households had 1 pig
 14 households had 2 pigs
 10 households had 3 pigs
 5 households had 4 pigs
 2 had 10 pigs, and one had 11 pigs from recent litters.

Although this number would probably double in the two years before the next Pig Feast, the figures are small. Discreet inquiry among men with one or two pigs elicited the fact that they had ten or more pigs loaned to other groups. I could not find out how many pigs they

 26. C.f. the relationship between farmer and town store in western Ireland, described by Arensberg (1937:170) where debt must not disappear or it might disrupt the relationship.

owed, but it is reasonable to assume that men of other villages had loaned as many as they had, and that they owed as many as they had borrowed. In short, the number of real pigs in circulation is nowhere near as large as the number of claims to pigs that are made. The system of lending pigs has thus some similarities with the Western banking system, in creating more credit than there is currency in existence; the credit can then be used to "finance" undertakings like ceremonials on a larger scale than would be possible if an individual or group was dependent on its own real resources alone.

The largest ceremonial, and the ultimate aim of all "financial" manipulation of pigs, is the Pig Feast which each group holds every three years. Piglets which are too small to kill at one feast are in their prime for the next feast. The three pigs which are kept are jealously hoarded by using piglets from later litters to repay debts, to provide for unexpected rites-de-passage, or to create new indebtedness. About ten months before its feast, a clan performs an announcement ceremony, which, in effect, creates a moratorium on pig dealing. If another group asks for the repayment of a pig, the claim can be refused by saying "The pig belongs to the ancestors", and is earmarked for killing. The feast giver may try to obtain more pigs by claiming repayments from another clan, but may be frustrated when the other clan announces its feast. Thus there is much competition about announcing future Pig Feasts. Sometimes it is advantageous to be the first to celebrate in an area and forestall other

clans; it may be best to be last, for then no other clan can refuse to repay debts; sometimes a year's delay may put a clan in the position of being the only celebrants.²⁷ The aim of pig-production and accumulation is to have as many pigs as possible at one certain moment in time, -- but then to give them all away, except for a nucleus for future production and accumulation.

The distribution is by means of the gimaiye ritual already described (p. 131). The same method is used for all ceremonial payments at marriages, ceremonies for the birth of children, at initiations and other rites of passage, at deaths, at peace-makings and when deaths or thefts are compounded by payments, or at ritual distributions such as those of the Yam-Taro ceremonies or Pig Feast. One difference from the presentation at a "luxury" visit by a village must be noted. At a ceremonial presentation the bosboi calls out the name, not of the individual to whom he is presenting the valuable, but of a clan. The bosboi of the receiving clan then comes forward to accept the presentation. In other words, the presentation is from one corporate clan, represented by its bosboi, to another corporate group, similarly represented. (C.f. p. 42) Members of the receiving clan claim they know nothing of the individual who provided the presentation (the groom's father at a wedding, the next-of-kin at a funeral); members

 27. In the deliberations preceding a Pig Feast, the need to initiate a group of boys and to obtain ancestral blessing seemed to outweigh the question of an opportune timing in importance. The economic considerations involved may be compared with those of the Mae and Mt. Hagen people, however (Goodenough 1953 & Vicedom 1945). In Siane the ceremony is primarily a clan ceremony; at Mt. Hagen the distribution and accumulation is done by individuals acting for themselves.

of the presenting clan claim to know nothing of the individual to whom the valuables are going.

Though the final presentation is a corporate one, the preceding negotiations within the corporate group are complex. Thus, when a marriage is contemplated, for example, the father of the prospective groom opens his pandanus-leaf containers (now often wooden boxes) of valuables inside the men's house, and lays out the valuables he wishes to present to the bride's clan. His lineage brothers watch and add substantial contributions to the display of bride-price. They discuss what is to be given, and are joined by the bosboi of the men's house and other 'big men', who also make contributions before entering the discussion. The display is rearranged after each contribution, and some items may be removed if it is agreed that the payment is too large. It is now common for 'big men' of other men's houses to contribute and join in the discussion, but in pre-contact times this was extremely rare.

By contributing, people are said to "help the groom", because he is their "brother". "Help" is given freely, with no formal obligation to return an equivalent. Members of the groom's lineage would appear shocked, when I suggested that their "help" would later be repaid, and stressed that no father expected a return from his son, and that brothers were "one man". In response to the same suggestion more distant clan-brothers would say that the groom might later help them, or that he had previously helped them and

they were now reciprocating. Reciprocity in helping is the rule outside of the lineage group, but it is not enforced by direct sanctions, nor is it good taste to mention its existence. Within the lineage, help is given without question, and is mainly from fathers to sons, without reciprocation. All that the fathers receive are the valuables presented by other groups when return payments fall due, or presentations given to the clan when daughters marry. They retain control over the son, however, until the son's wife has raised sufficient pigs to repay his obligations to other clansmen, and to make contributions to the payments of others.

All men of the men's house see who contributes which article, and remember it for several days. No formal record is kept, however, and the knowledge is soon forgotten except by the contributor and recipient. But when the total payment is ritually presented (gimaiye) to the other clan, a formal record is made by cutting small chips of bamboo as tallies. These tallies are about an inch long, and are called uma or "shoots". Each tally represents one valuable or pig presented. They are carefully wrapped in a dry leaf, and kept with the private possessions of the man on whose behalf the payment was made. If there is any dispute over the presentation, the tallies are brought out, and the exact content of the presentation is enumerated. With the help of the numbers of men who gather on such an occasion, the payments of many years ago can be accounted for.

When a total payment is referred to, it is spoken as being composed of, say, ten "neta" or "somethings". In calculating the

total, pigs, shells and plumes are added together, each one being equivalent to one neta. Small luxuries which are sometimes given at the same time as a presentation are not included in the total and constitute kevora neta, of which no account is kept (c.f. p. 133-4).

When a clan has publicly received a presentation it behoves them to give value for what they have received, and to return an equivalent (uto gimaiye). Each time one neta is returned, one uma or "shoot" is removed from the collection of tallies.²⁷ When the last tally is removed, it is called the mona or "root", and the metaphor is that of cutting down a tree, section by section, from the top. In a different sense the term mona can be used for the cause, or occasion for a ceremony or payment. The mona for a bride-price is considered returned when two children have been produced by the bride; if she deserts her husband thereafter no uma are returnable. The mona for the valuables a bride wears at her marriage and then gives to her father-in-law is repaid by the care and shelter given the bride during her married life. The mona of small presents given to the bride's mother after a wedding ceremony is "to stop her crying for her daughter", and is repaid by the bride's household services.

If no equivalent is returned (before the desertion of a newly-wedded wife for example), the valuables originally presented should be returned. This is usually impossible since the recipients have

 27. The uma is retained, but separately from the mona. In an accounting the returned uma are enumerated as returned, together with the outstanding mona.

themselves used the valuables for presentations. Instead, the same number of neta are returned, but there is much discussion of what should be substituted for each of the original articles. The equivalent must be of the same size, so that if a small gold-lip shell is offered in place of a large one, it is refused and either a large shell or pig substituted, or no agreement is reached. An atana shell (green-snail or taribun, (in pidgin) can be substituted for a small gold-lip, while various types of feather headdress equate with a medium-sized pig or a headband of cowrie shells sewn on to bark. The variations in size and relative merit form a subject for infinite discussion, but it is possible to equate any valuable with a certain size of pig or gold-lip shell. These commodities form the standard of value, and the generic term for ceremonial payments is ruruafu²⁸-- a combination of ruru (a shell) and yafo (a pig).

Presentations are made on many occasions. At the birth of a child one is made to the brother of the mother. New uma are cut at this time, and added to the uma of the marriage payment, for accounting purposes. At this time the child's mother's brother hands over valuables as "gifts" to the child. Though he gives them by umaiye, they must be reciprocated by the child's father, or the mother's clan can demand the return of the child to their village. Large payments

 28. This term was first translated to me as "bride-price", and is most commonly used in this specific sense. There are specific terms for other payments (e.g. aigavo for birth payments) but ruruafu is often used in speech to refer to these, and I feel justified in inferring that it is actually a generic term.

are made only at the birth of the first two children.

At the ceremony at the end of weaning, when a child's hair is cut for the first time, another exchange of presents takes place, with a balance going to the clan of the child's mother's brother. The same exchange, with a balance going to the mother's clan, occurs at the initiation of a boy and here the mona for the balance is the person of the boy. At any time during a girl's life, but most commonly when she emerges from seclusion after her first menses, a payment may be made to her father's clan by another clan. Such a payment is said to be homaiye, or "given in advance", to precede an eventual marriage payment. When a marriage payment is received by the girl's father's clan, some portion is presented to the clan of her mother, in final liquidation of any claim over her.

At funerals the chief mourners are the brother's clan of a woman, and the mother's clan of a man. They arrive bringing "gifts" to their dead relative, and all these "gifts" must be returned by presentations from the clan the dead person was living with. Any mourners, whether related or not, must be compensated for the grief they have displayed, and a finger chopped off by a mourner must be repaid by one neta presented.

At peace-making ceremonies (see pp. 38-40) a pig is presented for each man killed, while one valuable presented expiates one offence, or "loosens a knot". In addition, a number of unsolicited presentations are made, and pigs killed. These must be returned in kind if there is to be goodwill after the ceremony.

A similar immediate reciprocation occurs at the time of the

Pig Feast. During the days preceding the pig-killing, the feast givers take their sacred flutes in procession through other villages. The men of the other villages may then give (umaiye) valuables "to the ancestors", personified by the flutes. In the dances the ancestors (as gerua boards) wear these valuables. By giving in this way, the men of other villages become emonawe or "male sisters" (c.f. p. 131) of the feast givers. As such they receive pork in the distributions, just as the female sisters do, who have married into other clans.²⁹ What they are doing is clearly recognised by informants who said "They are hungry for pork. They are buying pigs." The transaction by its speed, exactness of reciprocity, and lack of permanence in the relationship does approach a buying/selling relationship, but in the distribution of pork it takes the usual form of ceremonial presentation.

Less formally, mother's brothers can give valuables to their sister's son whenever they visit him, but the clan of the recipient must make a presentation in return, on pain of being shamed as unable to provide for the child.

When a presentation is received by a clan representative, it must then be further distributed among the members of the clan. The original presenters take no part in this distribution and pretend to ignore its existence. In the case of a wedding, for example, cooked pigs are received by the bosboi of the bride's father's men's house. He sits with the head of the bride's lineage and they divide the meat

 29. In the monitory speeches describing the Pig Feast, the pork is said to be umuto to the married sisters, but in practice it is formally presented (gimito) to the sisters' husbands).

into portions to go to all lineages of the men's house, to each of the other men's houses of the clan, and to sisters of the clan married into other villages.³⁰ Some portions are specifically allotted to individuals who helped with contributions during the ceremony, but most of the pork is given to lineage heads who then give it to individual lineage members. The distribution makes it clear that a man's main responsibility is to distribute his goods to all the clan as help (umaiye), while only token recognition is given to other obligations incurred when help is received.

When a payment of valuables is received the distribution is conducted similarly, but more is retained by the lineage head, more is given to specific individuals, and less is allotted to corporate clan functions. Thus one bride-price received in 1953 for a girl of a lineage of Kunturo men's house, Antomona clan, and consisting of 14 gold-lip shells, 4 headdresses, 1 cloth laplap, and one pound note, was distributed as follows: -

Retained by the bride's brother - 5 shells, 2 headdresses
 Given to 4 youths, from various men's houses - 3 shells,
 1 headdress
 to the clan luluai - 1 laplap cloth
 to lineage heads, Kunturo men's house - 2 shells
 to the bride's "second father" - 2 shells, 1 headdress,
 and one pound note
 to an "other father" of the bride - 2 shells.

In this case the shells retained went into the lineage head's box of valuables, and were later used for the bride-price of the bride's brother.

The gifts to the luluai and the marriageable youths represent voluntary

30. When I was included in such distributions, I would be allotted pork "for my men's house" and I would collect it when the name of the ground on which my house was built was called.

gifts "for corporate clan purposes". The gifts to lineage heads and other members of the same lineage were spoken of as "help", but close questioning elicited the fact that all men had previously "helped" the bride's father in some way. Most of them contributed to the brother's wedding a month later.³¹

The reluctance to admit that some gifts were designed to repay a specific obligation incurred through receiving "help" on a previous occasion is typical of the emphasis placed on the voluntary nature of "help". Help in making ceremonial payments is given to a clansmate under the same conditions as help in garden work. It is part of one's obligations as a member of the clan. With members of the same lineage the obligations are always recognised reciprocally; with members of other lineages the obligations may be ignored, but when they are recognised, the help will be reciprocated; the obligations can be most generally recognised by helping people (like youths) who are in no position to reciprocate.

At first sight the only objects which are "consumed" after the operation of these complex distributive mechanisms are pigs. But the pigs which a group kills and presents cannot be eaten by their owners, nor can they be bred from and an eventual return of offspring be obtained. What the donor is concerned with, in presenting his pig, is destroying any possible direct satisfaction or gratification he

 31. The bride-price described is considerably larger than a pre-contact bride-price. Although there has been inflation, as will be described in succeeding chapters, there is no reason for thinking that the channels of distribution have changed at the same time.

might himself obtain from the pig. For him, disposal (or diminution of the utility of the pig) equals consumption. When once he has destroyed for himself the valuable nature of the pig, it is only a lump of meat to be eaten like any other comestible.³² Consumption by eating on the part of the recipients is immaterial to him, in the nexus of gima activities. They could as well let the meat rot.

With the more storable valuables, physical consumption is less obvious, except as wear-and-tear, and in the small quantities buried with a dead body. But consumption, in the sense of disposal occurs all the time. In western society the person who consumes through eating, using or wearing is considered prosperous; in Siane the prosperous man is he who disposes of valuables by gima on all possible occasions.³³ Since disposal is the only form of consumption common to both valuables and pigs, I propose to treat it as the major form of consumption of gima articles.

Even when valuables are worn for display, they do not advertise the fact that the wearer could consume them in use if he wished to. Rather, they indicate that the wearer has been considered sufficiently trustworthy, and that some member of another village has given him valuables, and been sure that he will soon dispose of some in return.

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32. This is not the only way of destroying the valuable nature of pigs. At many ceremonies portions of pork are put in one side as "spirit food" (korova weraneta), to be used in greasing flutes, or for exposure where the ancestors may "eat" it. After a short time, when the "spirits" have presumably eaten some insubstantial essence of pork, it is eaten without ceremony by members of the men's house who killed it. It is no longer "valuable".
33. This is a phenomenon which has been noted in many societies, e.g. Malinowski (1922), Barnett (1938).

In more familiar terms, the wearing of valuables is a display of one's credit rating, implying little about the number of valuables owned.³⁴ This statement is best illustrated by the shells which nubile girls wear, and which are supposed to be those given as an advance (homaiye) marriage payment when she emerged from her first menses ceremony. Most commonly no offer has been made and the display attempts to establish a credit rating deceitfully. Such a display also implies that her father will send a large present with the girl, to ensure her good treatment in the village of her husband. A girl changes her display frequently, implying that new offers are continually being made for her, which her father will match. Her marriage prospects are enhanced thereby. Adult men also make frequent changes in the shells they wear, implying that they are men who frequently receive new payments, and just as frequently give them.

The number of valuables presented in payments in pre-contact times was always small. Informants say a bride-price was normally two or three pieces of gold-lip shell, (not whole ones), a cowrie-shell headband, some plumes, and at least one pig. It might be inferred that the one pig and one shell implied in the term ruruafu was often the total payment. Payments at other rites-de-passage were

 34. In this respect it resembles the wearing of aumak sticks by Mt. Hagen natives (Vicedom 1945). These record the number of ceremonial exchanges participated in, rather than the amount of wealth owned.

even smaller, as far as I could discover. Since it was rare for more than two or three men to be killed in a war, only one or two pigs were killed by each side in the peace-making.

Even nowadays, when the number of valuables in circulation has greatly increased, few men possess enough to pay a complete bride-price themselves, though many lineage heads have three-quarters of a bride-price. Changes in valuables worn do represent a high rate of disposal of valuables. I would estimate that a similar ratio of valuables held to the size of a bride-price prevailed, when both total stocks of valuables and bride-prices were lower. Changes in the shells worn would then have meant the same as they do today.

The man who most often contributes to the payments of other members of his clan is also the man who receives most in the distribution of payments received. He is best able to originate relationships with other clans by child-betrothals, or by "giving" valuables to a sister's son. He widens the range of his participation in inter-clan affairs, and increases the frequency with which he can consume by disposal. Such a man is usually a 'big man', or aspiring to be one. The "ideal" man is so well-known in other groups that he is asked to mediate in disputes, and at his death non-relatives come to mourn for him. This he does by keeping his rate of disposal high, and the means of doing so are not to obtain a large stock of valuables, but to take advantage of all occasions on which he can make a ceremonial presentation.

But so far we have considered only the mechanics of how payments

are accumulated and presented, and what these payments signify to the individual who makes them. We can also consider the total system of gima activities, and its relationship with other activities of the society.

Ceremonial presentation occurs in a situation where two corporate, independent groups are present. Whereas obligations exist continuously within the clan and are fulfilled by help or by giving freely, no obligations exist between clans. Handing over valuables creates an obligation, and the ceremony of gimaiye gives public recognition to those obligations. The relative emphasis on "help" or "payment" varies with the number of obligations pre-existing between the parties to a transaction, or their structural distance (Evans-Pritchard 1940:108) from each other. The anomalous case of the presentation of luxuries to a departing village trade expedition becomes more comprehensible if it is viewed in this light. The obligations incumbent on a trade-friend are not so well-established that occasional public restressing of them is superfluous.

But if gimaiye and the transfer of valuables stress links between two clans, they also serve to mark the opposition between the clans. This is clearly expressed in the spatial relationships between donors and recipients, as they stand at opposite sides of the men's house clearing during a presentation. Gimaiye serves to mark the boundaries of the co-operating clan, for where gimaiye occurs, umaiye cannot. Thus men whose mothers came from Roanti clan refused to accompany me to a wedding in Roanti village between their clan sister and a

Roanti boy. They said "We would be giving payments (neta gimaiye) to our mother's brothers, and we would be ashamed". The formal opposition between clans was incompatible with the friendly relationship with maternal kin. Only where there is gimaiye and corporate opposition can there be marriage. In one case a bride-price was given directly to a girl's parents in an informal negotiation. When the rest of the girl's clan refused to accept shares in the distributed bride-price, the payment was returned and the wedding called off. The bride's clan declined to become involved as a corporate whole, and the marriage was impossible. It is perhaps obvious that children learn that people who come to the village and receive presentations of valuables are people who are potentially marriageable.

The correlate that where help is given, no gimaiye can occur, is also true. Thus pork must be publicly distributed to all members of his clan by a sick man during a curing ceremony, and a child's father must distribute pork and small valuables to members of the clan when the child is weaned and his hair cut. This distribution, though public, is not done in such a way as to oppose the donor to the recipient or to create new obligations. On such occasions pork is cooked and then taken round the assembled clan without being cut into portions. As the meat passes each individual he (or she) bites into the carcass and tears off meat with his teeth. The carcass goes to the next person who does likewise, and it is circulated until all is consumed. Every individual must eat, even if he is nauseated,

and this ensures that all receive the same amount. The distribution of valuables is done by piling them in a heap in the men's house clearing. The child is seated on top of the heap, and at a signal all members of the clan scramble for what is in the pile. The child is rescued by its father, but the successful grabbers remain anonymous.

In yet another way the gimaiye relationship serves to maintain the boundary between groups. The commodities needed for making presentations can, with notable exceptions, only be obtained by receiving them in presentations. To obtain amfonka ownership of valuables (as distinct from use of valuables owned by others of one's own clan) a man must maintain the social distance necessary before gimaiye can occur. Thus the fact that one cannot usually give a luxury article and receive a valuable in exchange is a condition implicit in the boundary maintaining function of the gimaiye relationship. If one gave away a shell to obtain food or pandanus nuts, one would be regarded as mad, or as the victim of sorcery by the food-giver. One would either be unaware of the implications of one's act, or one's soul would be stolen into the possession of the food-giver's clan and thus free use of the valuable would be permissible. The reason why it is possible for pigs (valuables) to be given for salt (a luxury) is, thus, the fact that social distance is maintained by the physical distance and the infrequent visits of the salt producers. Otherwise the obtaining of salt is talked about

as a transaction between trade-friends involving only luxury commodities, and the use of valuables is not mentioned. Yet another anomaly, the giving of large quantities of uncooked vegetables by gimaiye, is explicable in similar terms. When vegetables are given by umaiye they are given in a form in which they are immediately usable by the individual to whom they are given. The quantities in a gimaiye presentation are so large that any possibility of their being given to "help" any one individual is ruled out. The corporate nature of the transaction is clear, and is stressed by the uncooked condition of the food, which allows the receiving clan to store and allocate the food as it wishes.

These exceptions to the general rule, that types of commodity are used in one, and only one nexus of activity, in fact strengthen the rule by showing its more general application. The more general rule is that commodities are used only in situations where the nexus of activity is clearly one of intra-clan help, inter-clan presentation, or exchange between trade-friends; no commodity can be used in an ambiguous situation. Either the situation must be clarified by external means (e.g. the distance of salt producers) or the commodities must be distinctive of a particular situation (e.g. uncooked vegetables). Giving food to a visitor makes his position as an honorary clan member clear; a visitor's attempt to give valuables by umaiye to his sister's son makes it appear that the child is a member of his own clan; when the child's father makes a return presentation by gimaiye he defines the situation as one of the relationship of two clans.

The outside observer, viewing all the transactions of a gima nature, sees little total production, little change in the numbers of goods owned by each clan, and little increase in the amount of pork eaten by each clan, over and above the quantity they themselves produce, as a result of the many transactions. Pigs are produced by one group and eaten by other groups; in return other groups produce pigs, and the first group eats as many as it produced itself.

But each group also produces women, and when those women move out of their own village at marriage, a flow of payments starts to come into the village. The valuables constituting the payments flow out of the village as wives come in to the village from other groups. In short, the gima activities appear as a constant circulation of a limited stock of non-utilitarian valuables, with each movement of valuables being matched by a movement of women (and their children) in the opposite direction. Levi-Strauss (1951) calls such a situation "échange généralisé".

The Siane rule of preferential (but not obligatory) patrilineal cross-cousin marriage means that no group stands permanently in a wife-giving/receiving relationship with any other group. The "flow" of women, and the opposite flow of valuables do not go permanently in either direction. At any one time about the same number of women should go from clan A to clan B, as come from clan B to clan A. If this is not true a strained relationship exists between A and B. Thus, when a distant Yamofwe clan had not reciprocated a

wife they had received from an Emenyo clan, the girls of Emenyo refused to have even awoiro relationships with other Yamofwe boys. The girls said "They do not give their vulvas to our penises; we will not sleep with them".

While the number of wives given and received is in balance, the flow of payments must be a balanced one. When the relationship is unbalanced, one group gives out more sisters in marriage, and receives large numbers of valuables; the other group receives wives, but eventually disperses its stock of valuables. At this point it is forced to let some of its women go, in order to recoup valuables, while the other group can dispose of its holdings and obtain wives. In short the limitation of the total supply of valuables acts to ensure the balanced circulation of women within the society -- a topic which will be returned to later. Alternatively, the possibility of exchanging valuables for rights over women can be seen as a sanction ensuring the balanced distribution of valuables throughout the society, and reciprocity in ceremonial presentations.³⁵

To summarise the gima nexus of activities, it is concerned with the relations between corporate, inter-marrying groups. It involves

 35. The relationship between the Siane marriage system and the exchange of valuables has been treated more fully in Salisbury (1956b). It is shown that, although the picture given above is basically correct, a slight differential in the rate of acquiring valuables correlates with a slight but constant drift of women towards the wealthier groups. This drift was extremely small in pre-contact times and can be ignored in a discussion of reciprocity. It does show that the gima activities acted to distribute both women and valuables throughout the whole society, and not just one of them. Such distribution followed the economic principles of supply and demand.

the formal transfer of non-utilitarian goods in such a way as to publicise the indebtedness incurred, and to stress the distinctness of the two groups concerned. Strict accounting for the indebtedness is the rule. But these attributes of the act of gimaiye are also the general attributes of all relationships between clans. Presenting valuables can be seen as an expression, using concrete symbols, of the more general relationship of hostility and calculating politeness.

In a similar way the valuables are used as vehicles through which to express the intra-clan obligations of help. Help, in making contributions, or in the form of receiving distributed valuables follows the same channels as does help in productive work, or in sharing food. Help also constitutes a way in which a man may express his public spirit, gain power in the community, and increase his relationships outside his own clan.

Pigs are produced for use in gimaiye, and intricate mechanisms analogous with credit and insurance are employed to make sure they are available when needed. But while pigs as live animals or as cooked meat can be used to express help, they are only useful in gimaiye by virtue of the way their utility can be destroyed by their owner. This reduces them to the same state of non-utilitarian valuable, common to shells.

Like the other relations between clans -- the making of peace between enemies for example -- the whole system of gimaiye is regulated by the dependence of each clan on others, if it is to obtain wives.

IV. The Economy as a Whole

This chapter has described the way in which the resources of Siane society, its labour, its land, and the products thereof, are converted into goods giving satisfaction. The processes whereby this happens were divided impressionistically into three nexuses. A more valid definition of these nexuses is now possible.

The first nexus -- which I term the subsistence nexus -- is concerned with the use of goods in accordance with the obligations incumbent on members of the same clan. These obligations can be summed up in the term umaiye, which can mean variously "to help", "to give freely", and "to substitute for". These obligations apply directly to the use made of goods over which an individual has only merafo property rights, or trusteeship rights over an estate, the ultimate title of which is vested in the clan. The obligations also limit the use which an individual can make of property he owns as amfonka, his personalty. The articles of property to which clan obligations apply are faiuya neta or "things of no account"; personalty consists of neta or kevora neta.³⁶

The nexus which I have called gima activities is concerned with the use of goods in situations where there are no pre-existing obligations -- the relationships between corporate clan groups. The ceremonial act of gimaiye sets up specific, publicly-recognised

 36. These terms for goods, and the relationships in which the goods are used may be compared with the vaygu'a and gugu'a described by Malinowski (1922:177 et seq) for the Trobriands.

obligations, which are discharged either by tangible performance, such as producing offspring, or by reciprocal acts of gimaiye, termed uto gimaiye. In making a presentation, the practical utility of the objects given to the recipient is not the important feature; what is important is that the donor destroy any utility the goods might previously have had for him. The goods so used are mainly tokens, owned as personalty, and called neta.

The luxury nexus of activities involves the use of goods where clan obligations do not exist, but where there is no question of setting up obligations between two corporate groups. These goods are used where individuals have diffuse, but personal relationships with other individuals. Both parties obtain practical utility from the transactions which involve personal property of the kind called kevora neta or "small somethings". The transactions are variously described in terms of umaiye or in terms of gimaiye. But where umaiye is used to describe the handing over of goods, the strict reciprocity appropriate to gimaiye is the rule; where gimaiye describes the handing over of goods, the diffuse friendliness more characteristic of umaiye is in evidence. Such personal relationships with friends or maternal relatives in other clans must conflict with the corporate relationship of hostility and careful politeness which exists between the two clans as wholes. The ambiguous ways of regarding transactions within the relationship must be viewed in this light.

The three nexuses exist relatively independently of each other. Different goods are used in each nexus for the most part, and the goods used in one nexus cannot be substituted for the goods used in other nexuses. The few cases (to be described in the following chapters) where neta are given to trade-friends, who give kevora neta in return, are all cases where European goods are involved. The categorisation of these goods is not fully established, and the behaviour of the recipients of European goods (uncontacted natives for the most part), indicates how good a bargain they think they have made, getting neta in exchange for kevora neta. I am convinced that before European contact these anomalous situations did not exist, since the categorisations of goods were well established.

The situations where activities occur are usually unambiguous in demanding behaviour of one specific type. If the situation is not clear it is clarified by the nature of the commodities involved (e.g. the nature of visits to trade for salt). In any given situation there is always an economic decision to be made (e.g. whether to give shells or plumes for a bride-price, or which plot of land to clear for a garden) between the resources to be used for the appropriate activity. It would appear that there is little room for economic decisions as to which activity to employ. The question then arises as to the justification for grouping the three nexuses of activity as parts of one economic system.

There is, however, one resource which is used in all the nexuses -- that of the time of the participants. We can say that

an individual has a choice at every moment, whether or not he will enter a situation where a specific activity will be needed. By studying the way in which individuals allocate their time we can see how economic choices are made between the various activities.

After I had seen how regular the timetable of the women was, I did not make any exhaustive check of how women allocate their time. Since there are usually about three female visitors to be seen in a village on a typical afternoon, this means that one-twentieth of the female population is visited every day. It would be estimated that women spend one-twentieth of their time visiting other groups as individuals. About once a month the women of a village go as a body to a ceremonial taking place in another village. I would also estimate that women spend one day in ten at home, either sick or doing craft activities when their menstrual flow renders them unable to prepare food for their husbands. Times when they are at home, and when they are visiting in other villages are the only occasions on which they do not go to the gardens, weed the gardens, collect food and firewood, cook, and tend the pigs. Of their working days women spend about a quarter of the time in travelling and tending pigs, another quarter in productive garden work such as weeding, a quarter in collecting produce and wood, and a quarter in cooking food and knitting while the oven is hot.

This is a rough estimate of how their time is spent nowadays. Since women's tools have not changed since the arrival of Europeans, the acreage under crops is about the same, and only visiting could be

slightly more common now than it was twenty years ago, this estimate is an estimate of how women allotted their time in both the stone and the present-day steel technologies. The figures are given in Table 1.

<u>Activity</u>		<u>% of time spent</u>
At home sick etc.		10
Visiting individually		5
Ceremonial visits		5
Subsistence work		
Travelling & pigs	20	
Garden work	20	
Collecting crops	20	
Cooking & crafts	<u>20</u>	
		80
		<u>100</u>

Table 1. Estimated distribution of a woman's time in both stone and steel technologies.

In order to find out how men allocate their time it was necessary to make an exhaustive check of how specific individuals spent their time. I did this by observing the activities of a representative, stratified sample of one village during a period of three months, as is described in Appendix A. The activities can be simply divided into the same categories as women's activities can -- Sickness, visiting, ceremonial, and subsistence -- together with introduced activities such as Government work, playing football, and attending mission services.

These figures provide a basis for estimating how time was allocated in a stone-using economy. Informants say that it took three or four times as long to clear and fence an area of ground, using stone axes, as it now does using steel axes. Instead of the

men going to the garden site every second or third day for a whole month, and spending 10 to 15 days of work clearing a garden, when they used stone axes men had to work about every other day for about two months. They spent between 30 and 45 days of labour preparing each garden, and no sooner was one garden ready than it was time to start preparing the next site. As has been said, new gardens must be made about every three or four months if the supply of food is to be ensured. House-building and other activities using axes must also have taken somewhat longer to perform.

Sickness cannot have been less prevalent before the arrival of Europeans, but the recently introduced activities obviously took no time when stone tools were used. It is unlikely that individual visiting has changed to any great extent, although the coming of peace has probably increased it somewhat. The residual categories of ceremonial visiting, and craft activities presumably occupied the time unaccounted for by other, more calculable, activities. Estimates of the way in which a man's time was distributed twenty years ago, calculated on the basis of these ratios, and of the figures obtained by observation of present-day activities (see Appendix A, Table 2) are given in Table 2 below.

It will be seen that the distribution of time in a stone-using economy was very similar for both men and women. Both spent the majority of their time in subsistence activities, and a man devoted little time to the social activities which now form the setting in which he plays his role of aggressive, theatrical orator. It is

interesting to speculate how much of the variability of male and

<u>Activity</u>	<u>% of time spent</u>	
	in stone technology	in steel technology
At home sick	10	10
Visting individually	3	6
Ceremonial		
Religious	?	14
Courts	?	4
Fighting	<u>?</u> 6	<u>-</u> 18
Subsistence work		
Clan work	55	22
Lineage work	25	16
Home crafts	<u>1</u> 81	<u>12</u> 50
Introduced activities		
Government work	-	10
Mission	-	3
Football	<u>-</u> 0	<u>4</u> 17

Table 2 Allocation of a man's time in Siame. Figures for the steel technology taken from Appendix A. Estimates for the stone technology derived as explained in the text.

female stereotypes, which has been found in New Guinea by Mead and others, is due in part to the differential effects of the introduction of steel on the activities of the two sexes. Here only the contrast between the decrease in strenuous activity for the men, and the lack of change in activity for women, must be noted.

But if the allocation of time represents an economic choice on the part of the men, based on certain standards, it is clear that those standards have changed, following the introduction of steel. How they have changed forms the subject of the next two chapters. Possible explanations of why they have changed provide the material for the remainder of this thesis. Here the existence of certain

standards of evaluating the relative attractiveness of the three nexuses of activity must be noted. Within each nexus of activity, standards also exist for evaluating the ability of any particular resource to provide satisfaction. These standards of evaluation, although presumably "given" by the culture at any one time, have different degrees of relevance for different people, as can be seen by an examination of the figures given for different categories of people in Appendix A, Table 2.

The clearest consistent trend shown by the figures is the increased amount of time spent in corporate clan work, the higher the social status of the individual. Village officials spend 40% of their time in this way, while men without children spend 10%. On the other hand, unimportant childless men spend 31% of their time working on their own gardens and houses, while 'big men' spend only 5%. Men without children do not visit individually, but unimportant men with children visit frequently, more important men less frequently and village officials the least. Village officials spend much time settling court cases, but with this exception all categories spend between 13% and 25% of their time attending ceremonies. Village officials spend the most time on Government work and 'big men' who are not officials the least. But 'big men' also spend the most time in craft activities. Youths spend 26% of their time in newly introduced activities and 20% of their time at home, often sleeping off the effects of staying awake all night during an awoiro visit.

The explanation of these differences in time allocation can be phrased in two ways. Stress can be laid on the way in which the division of labour (officials doing Government work, and 'big men' doing skilled craft work, for example) adds to the total productivity of the society. Such an explanation has previously been given (p. 85 et seq), and will be seen to be consistent with all the variations in the amount of time spent by the differing categories of man. Or stress can be laid on the way in which different individuals are motivated by different aims - how important men work for the benefit of the clan as a whole, while unimportant men work for their own well-being. Participation in ceremonials is uniformly high, but unimportant men are more highly motivated to contract personal relationships with outsiders than are 'big men'. Both are methods of analysis which we will apply in the study of the changes in the economic system described -- the analysis of the functions of the various nexuses of activity, and the analysis of the standards of value around which activity is organised.

Chapter 4

Indirect Contact with Europeans

In May, 1930, the Highlands were first entered by M. J. Leahy and M. Dwyer in a search for gold. They entered from the East and prospected on the Benabena River, east of Goroka, before continuing along the southeast bank of the Asaro River, and down the Purari to the south coast of New Guinea. At this time (Leahy & Crain 1937:49) "the only tools in evidence were crude stone-working axes and sharpened sticks". They saw no metal of any kind, but at one Pig Feast they (p. 57) "bought a pig for a tomahawk". Food generally was abundant and cheap (p. 60). They noticed that (p. 64) "the farther (they) penetrated from the coast, the fewer became the shells worn by the natives, the shell ornaments being in most cases old and broken, suggesting that they had passed through many hands". As they passed Siane territory, but on the other side of the Asaro River, they offered one man a steel axe for a pig, but were met with refusal until (p. 65) they "tried him with a strip of small tambu shells sewn on bark, and he accepted eagerly". The reconstruction of Highland society based on what native informants say can be seen to compare with the impressions of the first European visitors.

It was not until February 11, 1933, that the first reconnaissance party set out from the Benabena area to explore the country farther west (Leahy 1936:245). The explorers left the airstrip they had levelled, crossed the Asaro River and entered the southeast of Siane territory

camping for the first night in Yaviyufa tribal land. The second day was spent climbing the eastern mountain wall, and circling round the tribes of Nivi and Wanto. From the second campsite the rugged mountains to the southwest were seen. On the third day the party turned northwest up the valley of the river draining the central part of Siane (called Urami in Leahy 1936:287 map). As the explorers walked up the grass ridge separating Aranko from Fowe tribe, they were followed "by hundreds of natives, many leading pigs along, tied by the foot asking us to buy them" (1936:245). From the summit of the ridge, in the territory of Waifo clan, Komunku tribe the party obtained the first glimpse of the distant Waghi Valley -- a view still breathtaking as the morning sun clears the mist from the intervening hills. They descended from the ridge and passed through the village of Roanti clan, Komunku tribe. They were greeted with shouts of "We turi(mo)" or "Men possessed by spirits".¹ After crossing the pass through the Erimbari ridge, they camped among the Dene-speaking tribe of Duma. There they saw the first examples of Mt. Hagen axe, and met the custom of awoiro which is less restrained among the Chimbu and Dene peoples than among the Siane. Next day the party descended to the Mai River but could not cross (February being the month when rivers are most full). They

 1. The phrase also means "mad men". It has been variously spelt wendulee and wenduli in Leahy (1936), Leahy & Crain (1937) and Simpson (1954). Where I quote from published sources I base my account on Leahy 1936 which is the only one consistent with native accounts and the linguistic evidence of words quoted. Thus Simpson (p. 13) mixes up the Dene terms for greeting and cowrie shell with Siane terms and says they were all heard before entry into Dene-speaking areas. Leahy & Crain (1937) has less confusion but is occasionally mixed.

turned northeast through the northern Siane tribes of Raya, Ono, Komunku and Yamofwe who continued the shout of "spirit men". The party climbed out of the Mai Valley through the villages of Yamofwe tribe, continued along the mountain ridge and descended to the Goroka plain through Yauna territory.

One month later a large expedition accompanied by J. L. Taylor retraced the returning route of the reconnaissance through Yauna, Yamofwe, and Komunku and passed on westwards. Parties travelled along this route from the Benabena area to the Waghi Valley at intervals during the next 12 years, but the main part of Siane to the south was not entered again by Europeans till 1945. It was considered beyond the reach of "centres of influence", such as were established nearer Government centres and manned by native police. In 1940 the area was scheduled for exploration and the extension of control, and the 1939-40 report of the Chimbu district called even the Mai River Komunku "generally uncontrolled and unco-operative". World War II ended further exploration, although several parties travelled from Goroka to Chimbu, and discovered a more northerly route which had an easier gradient.

The war also meant great activity at Goroka, including the building of police barracks, a hospital, several airstrips, and the passing through of large numbers of troops both Australian and American, negro and white. Much native labour was used at Goroka, and was recruited either locally or from villages along the route to

Chimbu. Occasionally visitors from uncontacted groups dared to go and watch the happenings. Experiences such as being given "tailor-made" American cigarettes by negro troops, or being machine-gunned by Japanese planes made lasting impressions. But the majority of Siane people had no direct contact with Europeans and were left alone to their private inter-tribal wars and ceremonial exchanging. Finally in 1944-45 a dysentery epidemic forced the natives to call for help from the Europeans, who came in immediately.

The native reaction to the 1933 visit was that the spirits had returned from the land of the dead, Makana. Old men still call Europeans Makana we, or "Makana men". Europeans were white-faced, like the spirits, and were assumed to have an intimate relationship with valuables and the welfare of pigs. Anything the spirits touched would turn into a valuable, while if they accepted an offering of a pig, its progeny would grow and flourish. This is why the party was followed by natives dragging pigs, and why natives collected "whatever empty tins or bits of paper (were) left behind" (Leahy & Crain 1937:153) -- not merely to collect souvenirs. The native beliefs were strengthened by the incomprehensible behaviour of the newcomers, and by their lavishness in giving valuables in exchange for "things of no account" like food. The "spirits" had seemingly inexhaustible stores of valuables for (Leahy & Crain 1937:152) they took no food with them but only "shell money". Confirmation that the newcomers were kinsmen of nearby natives was provided by the frequency with which

they used the greeting of the next linguistic group, "Dene"² -- as they called to Danny, Mick Leahy's younger brother.

It was only a few warriors and 'big men' who dared to come near the "spirits" and collect the pieces of paper, the lids of tin cans and portions of food. They took these objects back to the villages as "ancestral relics", and hid them in the men's houses. Ceremonies were performed, sacred flutes blown, and pigs killed in anticipation of the relics turning into shells. But after some weeks nothing had happened. The natives now realised that the visitors were not spirits, but men, though they could not use this knowledge to exploit a new source of valuables, since the explorers did not return. But when the expedition returned to Benabena in August, 1933, the northern tribes now saw nothing to prevent them taking valuables by force. The Europeans were forced to shoot in the more westerly Sinesine area, and in Siane "just at the junction of the Kormigi (Komunku) a line of warriors came to meet us, shouting and yelling. Battle was in the air. (We fired) over the heads of the approaching warriors. They turned and retired". (Simpson 1954:59 quoting J. L. Taylor's patrol diary).

In the brush with Komunku peace was kept, largely through the use of a native guide, named Heruku, from Yamofwe tribe. When the returning party passed through Yamofwe villages "Heruku (was) left behind. He was covered in glory, a hero among his people". In the

 2. This term, and the term Siane both mean "There are buttocks". An alternative greeting in Dene language is mone: and in Siane mokane; both mean "That is your penis". Simpson (1954:12) is incorrect in his translation of these terms.

same way the first reconnaissance party had taken "a husky young warrior" named Lobonogue back to Benabena, probably from Yamofwe also. He had acted as guide, interpreter and sponsor, taking "a leading part in persuading other natives to bring food", and introducing the party "to the people of each new village" (Leahy & Crain 1937:148) as they went along. When he returned to his people he was rewarded with knives, beads and some dog's hairs.

The help of these guides had been in accordance with the native pattern for the luxury activities of "big men". They gained prestige by the range of their contacts outside their own villages, and returned home, after giving help, laden with gifts. But the gifts the Europeans gave away were not merely luxuries as would have been expected, but also valuables such as shells, fine axes or knives. I shall discuss this discrepancy of using valuables in a context of luxury activities later.

Here the point I wish to make is that the goods were given to 'big men' who represented their villages, and through whom the first contacts were made. The new goods resembled the valuables already known to the natives -- finely shaped axes, and many types of shell. Naturally few goods were acquired in this way, for few visits were made, but even so the goods acquired through luxury activities went into the hands of men who could use them in gima activities.

Some new-style valuables were also obtained through gimaiye. When travelling Europeans wished to eat pork, they "bought" pigs,

as early reports phrase it. As the natives saw it, pigs were killed in honour of the visitors, who later made presentations of valuables in return.³ The men who killed the pigs and received the valuables were "big men" and the valuables presented to the northern tribes were fed into the gima nexus of activities, through the men who were most active in it.

Larger quantities of shell and more steel axes were obtainable by natives living nearer to the Benabena airstrip and Government post, to the Lutheran mission station founded in 1935 at Asaroka to the east of Siane, and to the airstrips in the Waghi Valley far to the west. The natives in these areas all have somewhat similar systems of exchanging valuables although they are outside the Siane area, and they used the new goods in bride-prices and to exchange for pigs. As would be expected, the introduction of new wealth upset the balance of the exchange system described in Chapter 3. Pigs, wives and valuables were no longer evenly distributed over the area. Instead the increased wealth of groups near European settlements caused shortages of women and pigs in outlying areas (Vial 1935:13 stresses this for Chimbu). In Siane the marriages during this period involved a significantly larger number of women going to groups nearer to European settlement than came from those groups (Salisbury 1956b). Even in 1953 there was unrest in Siane over the tendency

 3. Even now, when a Patrol Officer wishes to "buy a pig", natives insist on going through the forms of gimaiye. The Officer must hand over a gold-lip shell in person, although buying food is usually left to native policemen. He is usually prepared to do this since he does not wish to entrust valuable shells into the hands of a helper. Attempts not to kill the pig immediately, as would be demanded in gimaiye, are strongly resisted.

for wives to desert their husbands and go to richer villages, nearer the source of European valuables.

As women and pigs became scarcer in the areas of Siane some 30 miles from European settlement, and as valuables became more common near the settlement, as would be expected, the exchange value of women and pigs increased, relative to the value of shells and axes. Where, in the indigenous situation, bride-prices had been of two or three broken pieces of gold-lip shell, and a few other neta, now prices increased steadily. While the first visitors "bought" pigs for a few tambu shells, later travellers found single axes or large gold-lip shells insufficient.⁴ By 1953 the period of inflation seemed to have passed, and stable high rates were accepted, but parties of natives often came from the northeast still trying to exchange single axes or shells with the supposedly unsophisticated locals, for pigs. They were unsuccessful. But Siane groups who went 20 miles to the southwest into uncontrolled territory often were successful. It was my impression that success was less frequent towards the end of 1953, indicating that inflation had reached the uncontacted tribes to the far southwest.

There is no direct evidence of how higher exchange rates and bride-prices spread from the centres of contact. The simplest

 4. In a personal communication Mr. J. L. Taylor told me that during the war, when trade goods were scarce, natives would often kill ten or more pigs when he camped for a night, even though he had no shells. This was not done for other Europeans, but Mr. Taylor's "credit" was so great, he did not need to return a payment. In other situations inflation was universal.

reconstruction would picture a spread of a few miles each year. In one year a village five miles from a centre of European settlement, and still using uninflated exchange rates, might lose numbers of women (as brides or as deserting wives) to villages nearer the centre, but would gain numbers of valuables. Later, when the loss of women caused strain, they might recoup their losses by taking brides from a village farther out, and giving low bride-prices, while refusing to let girls go to the more contacted villages, except for high bride-prices. A balance would be reached between the two nearest villages to European contact, and the strain transferred to relations between the second and third villages. In the next period the third village would recoup their losses on a village still farther out, spreading the new balance a little farther but setting up a strain in more distant areas. Eventually the new balance would become almost universal, and the inflation would merely serve to distribute the new stock of valuables more rapidly than would have been possible with low payments.

The inflation would also strengthen the position of the "big men". Previously a young man could hope to "produce" a few valuables, through the pigs his wife raised, and these would speedily repay the contributions he had received towards his bride-price. Now the numbers he could produce would be swamped by the disproportionate numbers flowing in as ceremonial payments to those already participating in gimaiye activities -- the 'big men'. The 'big men' could

make larger payments, and more grandiose gestures of reconciliation at peace-makings, from what they received. Their reputations for generosity increased, and they received even larger payments from others. Their stocks of valuables grew as the inflation grew, while the stocks of less venturesome and energetic men remained static. Although the 'big men' produced nothing, their wealth and power grew, as did the wealth and power of entrepreneurs during the Industrial Revolution. As this reconstruction pictures it, the Siane situation was one of boom.

But the valuables also included steel axes. The 'big men' who obtained them were also the skilled workers, but they needed only one axe for productive purposes. Any other axes they obtained were either used in ceremonial presentations, or were borrowed for use by the less important men, who were entitled to do so, whenever tools were not actually in use by their owners. In other words, axes acquired as valuables were borrowed as though they were subsistence tools. One type of axe now performed the two functions of use and of ceremonial presentations, which had previously been performed by markedly different types of objects. Steel axes soon become universally distributed among adult men, and their use in ceremonial presentations diminished. By 1953 axes formed only a small part of the presentations within the Siane area, although Siane men used them as presents to uncontacted natives.

The effect of the introduction of steel axes on the subsistence economy has been described. The acreage under cultivation increased

only slightly. The time saved by the steel tools was not used to produce more food, but to increase activities of other kinds.⁵ There would seem to have been an increase in the amount of warfare. During the period from 1938 to 1945 three large wars occurred in the central Fira Valley, in which villages were burned and clans exiled. The histories which I collected described only four burnings during the previous 25 years, and the wars had involved only two clans on each occasion.⁶

The time set free was also used for gima activities. Informants say that before the arrival of Europeans only the immediate lineage groups of bride and groom plus one or two "big men" from their men's houses would attend a wedding. At present whole villages participate en masse in the festivities. Previously men, who spent 80% of their time preparing gardens and doing subsistence work, could not join in discussions of ceremonials, participate in them, and find ways of increasing their contacts with other clans. Now they not only had more valuables to contribute, but also the time to gain the benefits from contributing to the payments of others. The increasing number of people participating in ceremonies can be interpreted as the natural result of the desire to increase one's gima activities, when the

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5. C.f. Belshaw (1954:60) and others, who have commented on the reaction of Eastern Melanesians to greater ease of production. They produce the same amount, using less time, and use the time "for activities which were not materially-productive".
 6. These figures do not claim to be exhaustive, but the same trend has been remarked for other areas following first contact with Europeans (c.f. Leahy & Crain 1937:214). Three large wars in seven years can hardly have been normal, and have allowed the subsistence economy to be carried on.

limitations provided by small stocks of valuables and little free time were removed.

Larger ceremonies meant that more guests were entertained, and more pigs killed to feed them. The demand for pigs increased, and their exchange value, relative to shells, increased further. Pig stealing became a more frequent cause for fighting. I have no direct evidence that pig production increased, as would be expected, but informants did say that more pig houses outside the villages are now being built in the interval between Pig Feasts, and this would suggest an increase in production. This tendency towards scattered residence would clearly have conflicted with the increased insecurity caused by warfare. But the presence of such conflicts might well explain the welcome given to the Europeans who arrived in 1945 and brought a relief from the tension.

It would be expected that luxury visiting also increased during this period. I was told of visits by groups of southern Siane men to their Yamofwe friends who were building the airstrip at Goroka during the war. Men from southern Komunku clans told of visiting their trade-friends who lived near the Lutheran mission at Asaroka. Whether these visits represented an increase in frequency, I do not know. But from the stories of the marvels that were brought back by such visitors -- a leather belt, and a European cigarette for example -- the pattern would seem to have been the same as that of visiting which I observed.

I saw natives who had seen, perhaps, one white man, and who

wore almost no shells, visiting Siane groups, in which there were numbers of youths who had returned from indentured labour. To such sophisticates coloured handkerchiefs, machetes, leather belts, plastic bangles and beads were all just "small things" -- luxury articles that could not be used in bride-prices or to exchange for pigs, but which could be given as gifts to visitors from other groups. But the unsophisticated natives from the far southwest greeted these objects with screams of admiration and thanks, far louder than is common in a situation where a visitor is saying farewell. Surreptitiously also, the visitors picked up the lids of tin cans which I had thrown away, or scraps of coloured paper. This amused the blase men of the village nearest to me, as they commented on it, "They don't know the white men's ways yet".

When the sophisticated hosts had previously visited the uncontrolled territory, they had brought back with them quantities of roi oil. When they gave back handkerchiefs, pieces of cloth, machetes, or even axes, they felt they were making an equal, or even a favourable, exchange. The unsophisticated visitors presumably thought of these novel European commodities as "valuables", and their joy in receiving them was joy at being given valuables in exchange for luxuries. Clearly this was how Siane men regarded leather belts ten years previously. Yet by 1953 their values had changed, and it was no longer true to say that the categories of valuables and luxuries were mutually exclusive. Uncertainty had entered into the trade-friend

relationship when luxuries could be given and valuables received, and when goods, which one had thought of as valuables, turned out after a time to be only luxuries. It is in these terms that we must interpret the changes in the pattern of luxury visiting during the period of indirect contact.

There must have been uncertainty about the standards of exchange values, but there was also a stabilisation of new exchange values. By 1953 the new standards were well fixed in Siane, but the fact that they had only recently been stabilised was demonstrated by the hopeful visits of natives from the North and East. They brought round trinkets of many kinds, trying to exchange them for valuables or native luxuries. As I have said, the visits were usually unsuccessful, and the Siane men were quite incensed. "They think we are bush-kanakas", they said, using the insulting word for an unsophisticated native. The standards were not linked to an evaluation in terms of money, but they closely paralleled the values of goods at trade stores. Large shells, either gold-lip or green-snail, axes, headbands of cowries sewn on bark, 6 feet lengths of coloured laplap cloth became the units of neta or valuables, driving out the dog's tooth necklaces and cassowary egg-shell beads which are not seen any more. Mirrors, spotted handkerchiefs, whistles, white plates, plastic bangles, leather belts and other similar articles became kevora neta or luxuries.

In 1953 these standards were being accepted farther south.

In January some Siane men asked to take an axe of mine, as they went on a visit to the far south, in order to obtain a pig for me to kill. They themselves took a few beads. They returned without a pig, saying that there were no men without axes, but with several chickens, obtained with beads. Another group of men succeeded in obtaining a pig, but said that southerners really wanted shells for pigs. Yet another group which went visiting in August obtained no pigs, and only a few chickens, and complained that the previously ignorant southerners now knew how much chickens were worth.

A general characterisation of the period of indirect contact between Europeans and Siane would thus be that it was mainly concerned with a gradual change in the native standards of value. The gradualness of the change seems to have been accompanied by a lack of "anomic" symptoms such as occurred in other areas of the Eastern Highlands. Groups near Asaroka who had early direct contact with Europeans showed stubborn resistance to European innovation and the building of roads (Simpson 1954:122). Groups in the southern Dene-speaking area had less experience of European goods and naively accepted a Cargo Cult introduced by native evangelists from Kainantu in 1947 (c.f. Berndt 1953). The local prophet convinced them that if stones were heaped inside a house and watched over by himself and all the young girls of the village, they would turn into shells. Sticks similarly treated would turn into rifles, which could be

used in tribal fighting. Siame men visited the cultists, criticised such stupid behaviour, and told me with glee how the cultists had been discomfited, when they tried to shoot their wooden rifles against the police who arrived to settle the outbreak.

But although the standards changed, the activities in which goods were used did not. Such changes as there were can be seen as the fitting of new commodities into the existing pattern of activities, in accordance with pre-existing native values. They can be seen as the autonomous reaction to certain key changes which happened to be extraneous to the society, but which might equally well have been the result of new discoveries. These changes were an increase in the number of "valuable" commodities, and a technological change enabling men to spend less time in subsistence activities. Both changes combined to produce "inflation", a greater rate of circulation of goods, and a greater amount of contact between groups. The power of "financiers" was increased. Another secondary effect was an incipient breakdown in the line of demarcation between what constituted something to be used in gima activities, and what was to be used in luxury activities. Uncertainty was introduced into the native methods of defining the type of activity appropriate to a specific situation, by considering the nature of the relationship between the participants, or the goods involved in the transaction.

Chapter 5

Direct Contact with Europeans

In late 1944 the warfare which had been increasing since 1938 reached a climax as the victims of earlier wars sought their revenge, and simultaneously a dysentery epidemic struck the area. How far the warfare was actually blood-feuding to avenge dysentery deaths, believed caused by sorcery, I do not know, but at this time some bosbois of non-combatant groups decided that arbitration by the Europeans, whom they had previously visited, was necessary. Fortunately, a military administration (ANGAU) patrol in the nearby Sinesine area was soon able to provide medical assistance. From this time dates the establishment of medical aid posts, periodic patrolling, and the formal recognition of bosbois, but in the villages there was little break in the way of life which had grown up in the preceding 12 years.

The first patrol¹ gathered together all visible native weapons and burnt them in one fire on the site of the present Government Rest House on Emenyo territory. The patrol leader "bought" many pigs with gold-lip shells, and gave a large feast in which all the fighting tribes joined. A semi-permanent aid-post staffed by native medical assistants was set up a little further north, and the epidemic was brought under control, after some villages had lost

 1. I was never able to establish the name of the patrol leader, although his native name of "Masta Nom" is almost legendary in the area.

up to 20% of their adult male populations.² It will be seen that the patrol leader occupied the traditional native role of mediator in the fighting, and also fitted in with the native idea of a "big man" by contributing to the peace-making payments. Later patrols strengthened this idea of the Europeans being equivalent to a native "big man", and the term we namfa is still often used to describe a patrol officer.

The early patrols gave gifts to "big men" to indicate their recognition by authority, using such objects as rings, belts, and articles of clothing. Much of this recognition of "bosbois" was indiscriminate and its later withdrawal, when the regular administration appointed luluais and tultuls caused heart-burnings. But the gifts went to men who were prominent in gima activities, and established the Europeans as people, with whom it is politic to establish friendly gima relationships. Whenever a patrol arrived the native 'big men' would hasten to give presents of pigs, and to receive presents of shells in return. The pigs would be received by the spokesman for the patrol, who would hand them over to his police constables to kill, cook and distribute, just as a bosboi does when a pig is given to his men's house. White men are seen as the representative of and merafo (or "father") to a group of lain of men, and the larger his lain, the more respected a European is.

 2. The figures I collected showed one female to five male deaths, but they are probably incomplete as female deaths would tend to be forgotten.

Acceptance in an indigenous role also gave patrol leaders a right to expect hospitality from tribes among which they stayed. Even now, in the unsophisticated southwest, an arriving European is greeted by a whole village bringing gifts of (literally) tons of food. There is little obligation to make any more than token return gifts. But Europeans always do make a direct return, which is not of commodities of the same nature as foods, or "things of no account", but of commodities which are "little somethings", luxuries such as salt or tobacco and paper. In some instances minute amounts of valuables such as cowrie shells or beads may be given. Here again we have commodities used for activities for which, in the indigenous economy, they were inappropriate. Faiuya neta are exchanged for kevora neta or even for neta in a way which flouts the native definition of these categories.

But if European behaviour in an entertainment situation does flout some native standards, it conforms to them in others. Native hospitality is reciprocated by the Government when people go from the villages to the Government centre as village officials, witnesses in court cases, hospital patients or as stretcher bearers. The District Officer gives the native a note to take to the "compound", where are housed labourers working on the roads, or awaiting planes to take them to the coast for indentured labour. The visitor receives food and a bed, and no return is expected.

In other situations Government patrols act as though the natives have been giving the "help" appropriate to luxury activities.

When a patrol moves from one Rest House to another the baggage is carried by local natives who are not paid, since carrying for the Government is a legal obligation under native ordinances. But when the destination is reached the carriers are usually given some sort of "entertainment", such as sugar-cane to drink. They line up and receive a small luxury gift, such as tobacco or newspaper to roll cigarettes with, before departing for home. The presentation is paralleled by the giving of luxury gifts to a returning party of trade-friends. In short, the early patrols fitted in with the behaviours expected in the native system, and did little more than confound slightly further the classification of goods into water-tight categories.

But then money was introduced into the area. Some coins had been owned as rare valuables for a long time. I saw American dimes and Japanese coins, while I was told of German pre-1914 marks.³ Medical assistants and police recruited from the northeast of Siane earned substantial sums from the Government and knowledge of "shillings" and "notes" spread on the Goroka plain.⁴ Some knowledge of "shillings", presumably from their early use as valuables, spread into Siane before the pidgin term did. Kifana or "stone" was the only term I heard in

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3. Roberts (1935:7) reports finding German 5-mark pieces in the Waghi Valley also.
 4. Simpson (1954:125) states that money was first introduced in the Goroka plain in about 1948. I did not check this point when in the field, for the stories of medical assistants indicated that money had been used in Goroka since wartime days. It may be that 1948 was the time when the Goroka native hospital began purchasing vegetables for cash.

1952, but the pidgin term silin began to be used when natives returned from indentured labour.

During the period 1948 to 1952 coins must gradually have lost their status as rare valuables, for by 1952 only a few older conservative men persisted in maintaining great secrecy as they revealed their possession of a few coins. Most men carried round a few coins in an empty tobacco tin and the coins would be displayed every time the tin was opened to bring out matches or a piece of paper. When visitors depart it is now common for them to receive some coins as a parting gift. When a quarrel within a village is settled, one party may kill a chicken "to make the belly all right", and this gesture is reciprocated with a gift of a few shillings. Coins are often given in the same situations as are handkerchiefs, beads, or leather belts. In short, coins have become accepted as kevora neta or luxury commodities. Only among the more sophisticated natives is there much comprehension of the different values of different sizes of coin. Pennies (of which few are in circulation) are often added to 3d-pieces, and six-pences and a sum of six coins called "six shillings". Such a collection of coins is felt to be equivalent to two chickens, handkerchiefs or belts - to two units of kevora neta. Three shillings, which is about the purchase price of a belt or handkerchief in Goroka, are increasingly becoming accepted as the standard of value for a kevora neta.

Pound notes (and a few 10/- notes) are now also to be seen in Siane, but are usually kept locked away in valuables-boxes. Publicly

they are sometimes displayed clipped to the pole on which a bride-price is carried from village to village. Youths returning from indentured labour told me that they had brought back pound notes "to buy shells with". Certainly in 1950 a pound note would have bought a large gold-lip shell, or a full-sized axe at a trade store. In 1953 when trade-store prices for shell had more than doubled, natives from Siane still took single pound notes with them to Goroka, intending to buy shells. Pound notes have, in short, become equated with "valuables", and in the enumeration of a bride-price a pound note is counted as one neta. It must be noted that it is only paper money which forms a valuable; coins, particularly shilling pieces, form luxuries. Most Siane natives do not treat the two types of money as interchangeable.

But in 1950 the first few indentured labourers went from central Siane to work on the coast. They returned to their villages in the middle of 1951 and were soon followed by a much larger group who left for work in the gold-fields. The second group returned to Siane in January, 1953, soon after my arrival in the field. A third group of about the same size left in July, 1953. These men brought with them larger quantities of money than had previously been known in Siane. They also brought back other goods, new attitudes, new habits, but already in January, 1953, a ritual had been established to welcome them on their return, to re-incorporate them in native life, and also to absorb their earnings into the native economy. To understand the

effects that indentured labour has had on the native economy, we must first know what indentured labour involves.

After the formalities of going to Goroka, "signing" a paper, and waiting in the Government "compound", the native receives an issue of clothing, blankets, and eating utensils, and flies away in a plane to the coast or gold-fields where he will work for the ensuing 18 months. Each month he earns a minimum of 15/-, plus all food, housing, clothing and tobacco. Five shillings of this sum is given him in cash each month, and a lump sum of nine pounds or more is given him at the end of his indenture. The labourer learns to eat rice and tinned meat, to wear a cloth laplap and singlet or possibly a pair of shorts, to sleep in a ventilated house underneath a blanket, to eat when the European timetable of a noon-time lunch bell says he should, and to smoke European tobacco rolled in newspaper.⁵ He watches more sophisticated natives playing musical instruments, gambling with cards at laki, and peroxidizing their hair. He uses European tools to perform unskilled jobs, and may even help in a European house and learn some of the mysteries of European housekeeping.

On his return to Goroka, he is kept in nominal quarantine isolation, but word passes to the villages that the youths who have been mourned as dead have returned. Villagers trek in 30 miles, bringing sugar-cane and sweet-potatoes for their 'brothers', and

 5. For a native text recounting experiences while an indentured labourer see Salisbury 1956c:477.

return carrying the wooden boxes which contain the purchases the labourers have made. After three weeks the labourers are free to return to the villages, carrying what they have bought with their final payment -- usually shells which are unobtainable on the coast, and such articles as footballs, which they want to keep with them.

As the labourers enter their village the women scream and wail, literally as though the youths had returned from the dead. They are now "hot"⁶ and go straight to the men's houses where they are secluded and not allowed to touch food which women's cooking has made "cold". For three months they must have no sexual contact with women. On the day of their return they cook their own food, using cooking pots or tin cans which they used on the coast. When the other villagers have assembled in the men's house clearing, they open their valuables-boxes, amidst screams of amazement and delight. They then distribute about half of their goods, giving one or more valuables to the lineage heads of their own men's house, a little more to the village luluai, and something to the 'big men' of other men's houses. They do this, using the gimaiye ritual, as if these were presents being made by non-members of the clan.

On the next day each returnee's lineage head kills one or more pigs and presents them to the youth, who reciprocates by

 6. In the same way in which newly initiated boys are said to be "hot". c.f. Radcliffe-Brown 1922.



presenting one or more gold-lip shells. Mother's-brothers, wife's-brothers, brother's-wife's-brothers, sister's-husbands and even unrelated "friends" come to visit, wailing in loud mourning until presented with pork to eat. Each receives a small gift on his departure. At this time the returnees have "cooled" sufficiently to eat pork. Visitors continue to arrive for several days, the returnees emerge to play football, and eventually start making gardens, eating food brought to the men's houses by their mothers and wives. When they recommence cohabiting with their wives the event passes without comment or ceremony.

The ritual has many resemblances to the ceremony of initiation, and clearly symbolises the incorporation of non-members of the clan into the body politic. The gimaiye presentation stresses the non-membership of the returnees, as against the quasi-membership of novices for whom there is only a distribution to outsiders. Having "bought" membership in the clan, the returnees are immediately involved in clan obligations to help by the killing of pigs on their behalf. Most significantly in an economic analysis, their stocks of valuables are immediately redistributed throughout the clan, but mainly to the "big men", bosbois and luluais.

Table 3 shows the way in which one typical youth aged 19 distributed his "cargo", as the goods in a valuables-box are called in pidgin. I have added an estimate of the price of purchasing each article at a coastal trade-store. It will be seen that the monetary value of the "cargo" is over £12. while the youth only earned £13.10.0

The youth distributed

to the <u>luluai</u>	one laplap	6/-
	one feather headdress	3/6
to the <u>luluai's</u> son	one tin of ointment	2/-
to the <u>bosboi</u> of his men's house	one laplap	6/-
to a lineage head of his own men's house	one axe	8/-
to another " " "	one laplap	6/-
to another " " "	one handkerchief	1/6
to another " " " *	one axe	8/-
	one handkerchief	1/6
to a 'big man' of another men's house	one laplap	6/-
to another " " "	one laplap	6/-
to another " " "	one laplap	6/-
to another " " "	one kumkum shell & 3/-	8/-
to another " " "	one handkerchief	1/6
to his own lineage head **	one gold-lip shell	30/-
	one laplap	6/-
to his own mother's-brother	one laplap	6/-
to a true-brother's wife's brother	one axe	8/-
to a lineage brother's " "	two laplaps	12/-
to his own mother	one handkerchief	1/6
	<u>Total distributed</u>	<u>133/-</u>

The youth kept for himself

one handkerchief	1/6
two laplaps	12/-
one pr. scissors	5/-
some white buttons	2/-
2 leather belts	6/-
a machete	7/6
one pr. shorts	7/6
one gold-lip shell	30/-
one football	15/-
one pound note	20/-
four shilling pieces	4/-
	<u>Total kept</u>
	<u>110/6</u>

Table 3. The distribution of goods brought back by an indentured labourer. Prices are my own estimate of the cost of articles at a coastal trade-store. The lineage head * had looked after the labourer's widowed mother during the 18 months of indenture. His own lineage head ** was his yarafo who killed one pig and gave it to him.

during his period of indenture. He only spent about one pound for articles which were not brought back by him. Labourers aged 25 brought back fewer goods, and presumably spent more during their indenture on luxuries, payments to women, and compensation to other groups with whom they fought,⁷ but these figures are typical for the youths who form the majority of labourers. It will also be seen that the labourer keeps for himself about four valuables (shells, pound notes and laplaps), five or six luxuries (handkerchiefs, belts, shillings, etc.) and some articles for personal use (shorts, footballs, machets, etc.).⁸

But the labourer has also learned to categorise goods somewhat differently from the stay-at-home men, for whom the native categories, if modified as described previously, are nonetheless fairly clear. Labourers wear laplaps as everyday clothing, smoke trade tobacco rolled in newspaper in preference to uncured leaf wrapped in banana leaves, and use soap regularly for washing. They play football and are prepared to wear out their balls; many of them have kerosene lamps and need fuel and wicks; they treat belts, hats, shorts, beads, peroxide, "lollies" and face-powder as luxury articles to be consumed if they are available, and not just as curiosities belonging to white men. Supplies of these goods are not inexhaustible, and the few

7. The group who departed for indentured labour in July, 1953, specially asked not to be sent with a party from another Highlands village, since quarrels were inevitable on the coast, and to settle a dispute with other Highlanders they always had to make payments from their hard-won earnings.

8. In addition the labourer has some part-worn clothing which he is wearing, and used articles like cups, sticks of tobacco, combs and rolls of newspaper. These have been issued to him by his employer and he keeps them either on his person or in a small bag.

shillings a labourer retains are usually earmarked for buying more at the trade-stores in Goroka.

His pound notes are explicitly retained for the purpose of buying shells, but many a labourer came to me, when the stream of visitors had been coming for some days, and shamefacedly asked me to sensim (pidgin for to "change") a pound note into shillings. Supplies of luxuries had been exhausted, and more were needed to give as gifts to departing visitors. Such outright changing of valuables like notes for luxuries like shillings would be inconceivable to stay-at-home natives, but is familiar to, if somewhat despised by, indentured labourers.

Later on other returnees changed pound notes to have money to buy other luxuries.⁹ They wanted trade-tobacco not only for themselves, but for entertaining visitors, who, if they have been to the coast, would be insulted if offered native tobacco. Salt for entertaining is also obtainable from trade-stores in one shilling packages. In other words, indentured labourers no longer have the activity in which they will use a commodity determined in advance by the cultural standards, but must make an economic choice between using money for entertaining or for making ceremonial payments. This choice needs to be made only rarely, since few pound notes are in circulation.

 9. Natives, at a trade-store, do not ask for a small quantity of goods, and accept change, when they have only large coins. A man with a shilling takes a whole shilling's worth of salt and gives away what he does not need, rather than taking 3d-worth of salt and 9d-worth of change. Large sums must be changed in advance of going to the store.

But since the use of money in bride-prices is likely to increase,¹⁰ and entertaining is likely to become even more of a drain on cash resources, the choice is soon going to be much more pressing. The possible future implications of the increasing use of money will be discussed further, later in this chapter.

A more immediate effect of the return of the labourers has been the vast increase in the stock of goods owned by Siane men. This increase has affected stay-at-homes as well as labourers as can be seen from Table 4 below.

<u>Goods owned by</u>			
lineage <u>yarafo</u> who had not been to the coast		Unimportant returned labourer of same age	
3 gold-lip shells	90/0	9 laplaps	54/-
5 laplaps	30/-	1 towel	7/6
1 towel	7/6	1 machete	7/6
1 pr. shorts	7/6	3 spoons	4/6
1 football	15/-	1 tin face-paint	1/-
2 spoons	3/-	2 belts	6/-
2 strings beads	3/-	1 roll newspaper	/6
2 boxes matches	/6	1 small knife	3/-
1 reel thread	/6	1 bag containing	<u>2/6</u>
1 singlet	7/6		
1 machete	7/6		
2 bars soap	1/6		
2 rolls newspaper	/6		
1 large knife	4/-		
1 mirror	3/-		
1 leather belt	3/-		
1 tin box containing	<u>8/-</u>		
Total cost	192/-	Total cost	86/6

Table 4. Goods owned by two men of the same age (25) of Antomona clan, Emenyo tribe. In addition both men owned 3 feather headdresses to which no cash value could be attached. The values of items are my own estimates of the cost of purchasing these goods at coastal trade-stores.

One luluai, whose box I glimpsed briefly, owned 17 gold-lip shells,

10. This is the experience of other areas in Africa and the Pacific c.f. Hunter 1936:193, Fortes 1936:38, and Keesing 1941:127.

5 green-snail shells, 5 bird-of-paradise plumes, and numerous laplaps, and I think he was one of the wealthiest men in the area. The differential between the possessions of 'big men' and those of unimportant men does not seem to have been reduced by the departure of unimportant men for indentured labour.¹¹ 'Big men' are still those who are most active in gima activities.

The amount of wealth possessed can be compared with the size of payments which are now made. One bride-price given by a comparatively wealthy group has been listed on page 149. A small one from a relatively uncontacted group comprised 9 gold-lip shells, 3 green-snail shells, 2 cowrie-shell headbands, 1 opossum fur, 3 bird-of-paradise plumes and 2 laplaps. There is little variation in the size of bride-prices given on behalf of members of the same clan, as would be expected since they are corporate clan payments. But the amounts given by wealthy clans can be twice as much as those given by uncontacted clans.

One of the most striking examples of the way in which the gain in prestige by a whole clan acts as an incentive to make a high payment was provided by the case already described on page 155. A bride-price of 11 gold-lip shells, 5 green-snail shells, 2 cowrie-shell headbands, 5 plumes, 1 laplap, and 2 pound notes was refused by the bride's clan and returned. This bride-price had been contributed by many different

 11. Alternatively one could say that the enforcement of the distribution of earnings is still effective. How this enforcement is being challenged, and how youths can use their earnings in bride-prices without distributing them will be discussed in the next chapter.

men of the groom's clan. The girl did not marry, and the youth enlisted in the police. Soon afterwards the girl eloped to the boy's village and insisted on marriage. The boy's father tried to collect another bride-price, but only three lineage heads of his own men's house contributed 8 gold-lip shells, 1 plume and 24/-. The other men said "It is not our affair. The youth is now a Government man. They should provide his bride-price". When the clan's prestige was not involved, few men contributed and the bride-price was low. Whether it was accepted only because the girl was adamant, I do not know, but the case also shows that it is possible, though unusual, for two or three lineages to contribute enough to make a small payment.

All the payments at a wedding are inflated in size. The bride's decoration consists of some 6 gold-lip shells, 7 green-snail shells, and numerous plumes, headbands, handkerchiefs and laplaps. The presents to the bride's mother "to stop her crying" amount to almost as much. The bride's clan take about four pigs to the wedding feast, and the groom's clan entertain their guests with about 6 pigs.

For the birth of a first child a father kills some six pigs, and presents about three gold-lip shells, 3 green-snail shells and other smaller objects to the child's mother's brother, who has previously brought two pigs "as gifts for his sister's son". At the haircutting-weaning ceremony one gold-lip shell and one small neta is all that is presented, along with luxuries and a pig. At an initiation 3 gold-lips, 5 green-snails, 4 laplaps, and 3 feather

headdresses might be presented. The mother's-brother's clan give one last "gift" at a funeral, consisting of about 2 pigs, 2 gold-lip shells, a laplap and 2 axes, and this is returned by a presentation of the same number of valuables and about 4 pigs.

At present a married man with one son and one daughter has to make payments amounting to about 28 gold-lip shells, and over 30 other valuables between his marriage and his death. Most of these payments occur during the early years of his marriage, when he is aged under 30 and his children are less than 8 years old. For the rites-de-passage during this period he must kill more than 30 pigs. The possessions of a young man, even of a lineage yarafo, could not possibly (even if return payments are calculated) finance the making of payments on this scale. The balance must be provided by older men, whose receipts from payments must be commensurate with their provision of "help". They maintain control of the making of payments, and also enforce the distribution of valuables by newly returned labourers, thereby preventing any challenge to their authority.

So far the changes consequent on direct contact with Europeans, which have been described, have been changes in the luxury and gima nexuses of activity, and no mention has been made of changes in the subsistence economy. Most of these changes have been described in the previous chapters, but direct European contact has brought some further small changes. The first patrols distributed seeds of most

European vegetables to provide a supplement to native diets. These European vegetables have been eagerly grown by natives to please the white men, and to have the appropriate food to offer to European visitors. Only cabbages, tomatoes and potatoes are eaten to any extent by natives. In exchange for the gifts of food made to European visitors, the natives receive small quantities of salt and other luxuries. The consequences of this exchange of subsistence commodities for luxuries have been mentioned previously.

As yet there has been little attempt to increase the amount of luxuries obtained, through the planting of larger areas of European crops. This can be related to two factors -- the limited market, and the unpredictability of the market. Government patrols occur only about twice a year, and consist of about twelve persons (Patrol Officers, native police, interpreters, etc.). Visits by the missionary or the agricultural extension officer are newer phenomena, happen a little more frequently, but entail fewer visitors in each party. The Government centre at Goroka is 30 miles, or two-days walk, away and the maximum load that can conveniently be carried is thirty pounds per man. Thirty pounds of vegetables fetch 2/6 when sold to the native hospital, and this is small return for four days of hard walking.

Thus the potential market in Goroka is only used when natives have to go to the Government centre in any case (for example, as witnesses in a court case). It is hardly possible to plan production in advance of such occasions. Similarly the date of arrival of

patrols or visitors is unpredictable, though it is true that there is a greater likelihood of a patrol during the four drier months of the year.

The luxuries obtained from such patrols' demand for food are thus regarded as windfalls, disdained by the men for the most part, but eagerly sought after by the women, the amfonka of the vegetable produce. But the men's disdain is largely a function of the smallness and uncertainty of the luxuries. I realised this after I had provided a consistent market for the women's vegetables for several months, and on one or two occasions had also bought bundles of firewood from women, but refused bundles which men brought in later in the afternoon. The village luluai remonstrated with me, complaining that men were unable to obtain luxuries from me by bringing food, and saying I should give them a chance by buying wood from them alone, and not from women. Subsequently I noted that it was the men who brought in most European vegetables, while women only brought native vegetables. At first, men had brought only sugar-cane bananas, eggs and chickens, while women had brought all vegetables. I could not determine whether this marked a change in the native concepts of ownership of vegetable produce, or whether it was a temporary phenomenon. In either case it indicates that the establishment of a regular market for cash crops could lead to a new delineation of property rights over food, with men owning cash-crops, and women subsistence crops.¹² Such new property concepts would probably also

12. The newer crops of coffee and passion fruit are discussed in the next chapter. Since axes are needed for their cultivation, they are clearly marked as "men's crops".

involve the men in the work of cultivating European vegetables.

There are also some indications of a possible change in land tenure. There seems to have been little increase in the acreage under cultivation, although it is now the lower slopes that are cultivated (p. 72), but informants say that more pig-houses are built nowadays (p. 181). Many of these pig-houses are built on mountain ridges, and small gardens are cleared nearby from the virgin moss-forest. These gardens provide phenomenal crop yields, but entail so much work in clearing that they do not form part of the regular routine of crop rotation. They are cleared by single individuals in the intervals between their assistance in communal garden work. Such individuals often live in the pig-houses and seem to be of two main types; young men, who are not lineage yarafo, not wealthy, and who are newly cohabiting with their wives; older men aged about 40, often with young children, who, though influential, have not become bosbois. These are the men who have the least to gain by remaining in the centre of clan activities, and the most to gain from independence. It may be that they represent a trend towards individual ownership of the land which they clear, and the individual ownership of the products of the land. If so, it would be expected that they will be the first to be affected by the establishment of a market for cash crops.

From this description of the changes that have already taken place, it will be seen that direct contact with Europeans has made little change in the nature of subsistence activities beyond the saving of labour entailed in the introduction of steel tools. The

changes in the organisation of these activities are, at most, incipient. Luxury and gima activities have not changed in nature, but have increased in frequency and in the number of goods involved. The goods introduced by Europeans have been incorporated into the pre-existing native categories, just as the Europeans have been incorporated as "big men". But the incorporation has involved some changes in the organisation of activities. The economic power of "big men" has increased, although, at the same time, smaller groups or individuals can now demonstrate independence. The possibility of using commodities in activities for which they are, theoretically, inappropriate has increased, as has the breakdown of the fixed standards for classifying commodities. Money, simply categorised as a luxury in the form of coins, or as a valuable in the form of notes, has proved the most "convertible" commodity.

What do these empirical changes mean in a theoretical analysis, and what do they indicate as the future direction of change? There is little likelihood that ceremonial payments will cease to be made. No feast is complete without the killing of pigs, and display is of great importance, as when shells and coloured cloth are carried on a pole and displayed as an offer of bride-price. Shells and pigs are likely to remain of great importance, and at the moment, although the purchase price of an average bride-price is between £25 and £30, it is rare for as much as five-pound notes to be included even by a highly Europeanised village. Money, as notes, has been accepted

for use in payments since it is rare, and the articles given can be displayed. But the function of payments has been shown to be the alignment of one corporate clan against another, thereby emphasising the solidarity of each group, their mutual distinctness and the possibility of inter-marriage. Clan solidarity and the relative influence of individuals within the clan are expressed in the contributions to payments. If articles which are less easily displayed, of less rarity, and divisible into smaller units are used in payments, less ceremony is likely to attend their handing over. Clan solidarity will be ritually stressed less often, the relationship between payer and payee will become a more individual one, and the rules of clan exogamy will be less enforceable. If such a trend were accompanied by an increase in the power of the "big men", who alone could finance payments, a division of the existing clans into small "empires" ruled by dictatorial "big men" is conceivable. Such an organisation would resemble that described for the Mt. Hagen tribes (Vicedom 1945).

Luxury gift-giving, at present, is a matter of individual ties to "friends", and is concerned with obtaining goods for personal indulgence or with widening one's social contacts. If, with the breakdown of the boundary between luxury and gima commodities, such gift-giving became imbued with the suspicious effusiveness now found in gima presenting, another sphere would be available for the self-aggrandisement of "big men". On the other hand, the giving of

commodities which can be either valuables or luxuries may approach closer to the model of friendly luxury giving. Coupled with a decrease in clan solidarity already indicated, this eventuality might go along with the trend towards lonely residence by individuals, and the general individuation of all social relationships. Such a development would be accompanied by a decline in the power of the "big men", and a refusal by returned labourers to distribute their earnings.

These are the possible effects of a breakdown in the clear-cut categorisation of commodities, of an increase in the convertibility of commodities for use in different types of activity, and of the introduction of money. It must be noted in passing that it is not the characteristics of money in being storable, a repository of value, generally acceptable or a standard of value that have made its introduction vital. All those characteristics were possessed by the commodities it is used in place of. It is the characteristic of divisibility that has made it usable in many contexts. One crucial issue is whether the power of "big men" will increase or not. An answer to this question will soon be provided by change or conservation of the existing system of land tenure. At present the rights to usufruct owned by all members of the clan mean that lineage heads, most of whom are "big men", are only guardians of lineage land. But if a market for cash crops arose, and especially if trees provided the cash crops, their rights of exclusion might easily conflict with the rights of individual firinka amfonka. "Big men" could refuse to distribute

title they inherited from previous lineage heads; they commonly control the labour of the lineage; they could use their wealth to obtain additional wives to cultivate larger areas of land and increase their wealth still further. By planting trees they could exclude other members of the clan from the land. This may sound an extreme speculation, but such a situation has developed near to Goroka, where there is a market for cash crops. There plural wives are an economic asset, and in one case a man "pays" his nine wives, almost as though they were wage labourers. The crucial question is whether individual firinka amfonka's rights will be respected, as against lineage heads' merafo rights.

Attention has been focused on the changes in the Siane economy, but the present economy would not appear strikingly different from that of twenty years ago to a visitor. Now more decorations are in evidence, men have boxes full of valuables and luxuries, and ceremonies are more elaborate. Warfare and sudden death are much less common and men who would have been warriors twenty years ago now play football. Men travel by aeroplane to the coast while twenty years ago few men had gone more than ten miles from their village. Native life is richer and undergoing a "boom". But underlying this life are the same structural features of the division into social groups, the allocation of authority, obligations to clan members, the organisation of work groups, and the importance of kinship. Other than the cessation of warfare, the changes have been changes in the available

resources, and in the methods of allocating those resources towards the satisfaction of the same felt wants as existed twenty years ago. They have been economic changes. But any further changes, as I have attempted to predict them, will necessitate changes in the division into social groups, in the allocation of authority, and in the nature of kinship ties. The economic changes will become changes in the social structure. It is at this point that a description of economic change must stop. The rest of this thesis will attempt to analyse, in terms more familiar to a traditional economist, the way in which economic change happens in a primitive non-monetary economy, and leads on to eventual structural change in the whole society.

Chapter 6

Capital Investment during Economic Change

The two preceding chapters have described the process by which Siane society has changed from being a society barely above "subsistence" level to being one in which time is available for many non-subsistence activities, and in which the number of goods owned has increased many times over. The analysis of this process has largely been in terms of the groupings involved in the various transactions and activities, of the organisation of the activities, and of the commodities involved in the activities. The prognostications about future changes have been made as a result of a sociological analysis of the functions of the various activities in maintaining the identities of the various groupings.

In a more orthodox economic analysis this process could be considered one of "economic development" if we adopt the definition (UN 1951:3) of development as the raising of the per capita real income in the society. Development could then be related to changes in the capital investment of society. On a priori grounds, and on the basis of experience in other societies, it might be argued that an increase in capital investment causes development (c.f. Belshaw 1954:118), that capital accumulation tends to take place when the productivity of capital increases, that the major factor preventing the adoption of more productive forms of capital

is the lack of education (c.f. UN 1951:4), or that it is the presence of over-population and a large labour surplus (c.f. Frankel 1953:100). But the relevance of these arguments to the Siane case can be examined only if a definition of capital is established, which would enable it to be measured in Siane.

Certain sociologists and anthropologists have emphasised different aspects of the concept "capital" in their attempts to apply the concept to the analysis of non-western economies. Many of these attempts have been described in Chapter 1. Thus Firth stresses the fact that capital is "a stock of goods and services", that capital goods are used in the productive process, and that this means their "immobilisation", or withdrawal from immediate consumption. Thurnwald laid more stress on the inherently productive nature of real capital. Weber emphasises the productivity of capital and its use in accounting, whereby the profitability (or productivity) of an enterprise is assessed by comparing the value of the stock of goods before and after the enterprise.

Economists also emphasise different aspects of capital in different contexts. Fisher (1919:105) uses the term 'capital' to mean the stock of goods of a relatively permanent nature, which ^{are} held at any one moment, and distinguishes it from "income" which "follows later in the form of enjoyment". Frankel (1953:51)

takes issue with the idea that we can separate "enjoyment" or "satisfaction" from consumption, and set up an entity of "income". What occurs is that goods are removed from a capital account to an income account, and then used. The distinction is thus one of accounting and measurement, rather than one of absolute criteria. Far from being a category of permanent goods, capital has as its essential nature "that it needs replacement" (Frankel 1953:10).

A similar distinction is made by Kuznets (1953:47) between "capital goods" and "finished products", where any particular good may constitute a finished product for one entrepreneur, but constitute capital for another entrepreneur who buys it to produce other finished products. Kuznets uses terms in this relative sense, rather than in an absolute sense, since in his analysis he is considering the viewpoint of only one entrepreneur at any one time.

Yet another distinction is that between capital goods and consumer's goods. Thus capital goods are those which

"enable the community to satisfy its wants more fully in the future, by augmenting the future output of consumer's goods and services. .. (They are) goods which contribute indirectly and not directly to the satisfaction of wants"

(Benham 1938:146)

Consumer's goods are those which provide immediate satisfaction, while capital "involves a renunciation, for the time being, of consumption..with the incentive to waiting being the promise of an increase in output" (p. 147).

Distinctions between capital as goods, or "real capital" and capital as an accounting symbol of monetary value are clearly inapplicable in a non-monetary economy where all capital is "real capital". Nonetheless, if comparisons between levels of capital investment are to be made, some method of accounting must be used.

The common features of all these statements about capital is that capital is seen as a stock of objects or goods, present before a productive act is performed, withdrawn from direct consumption while the act is in progress, but added to by means of the act, and that some of the stock is eventually dispersed by transformation into "income" which is consumed. Such a definition of capital makes no distinction between naturally occurring goods (or resources) and produced goods, or between tangible and intangible goods such as knowledge. As Kuznets (1953:201) shows, all of these goods could be included in an account of capital. In practice they are not usually included in any measure of capital stock since they are almost constant, are difficult to express in the same accounting terms as other items of capital, and are chiefly important for their changes (the exhaustion of resources and the accretion of knowledge).

In applying this definition to Siane we are aided by the fact that many of the distinctions necessary in a complex economy are not needed in Siane. Entrepreneurs do not hand over

products to other entrepreneurs who then use them as capital goods¹. They either acquire capital goods such as axes from outside the Siane area, or make their own tools for use in production. When goods are withdrawn from a stock of capital they are consumed by the owner immediately, or given away for consumption by others. It is at this point that "income" accrues, but there is no overlap between the "income" of one man and the "capital" of another.

One anomaly is the category of goods such as houses and clothing, which do not produce further material goods, but which represent an increased stock of goods that is not dispersed until the article needs replacement. They do produce services, however, and for accounting purposes can be regarded as on capital account until they are destroyed (and become added to income), and replaced by a new capital investment. In more familiar terms, such goods constitute "consumer's capital".

The most obvious productive goods in Siane are the tools used by men and women -- their axes, if they are men, and their digging-sticks and bone-needles if they are women. These constitute the "durable instruments of production" usually termed "fixed capital" (Knight & Hines 1952:102).

A third category of productive goods is also commonly

 1. At this point I am not considering "valuables" as capital since their circulation does nothing to augment the supply of goods or "services of direct welfare to the individual" (c.f. Kuznets 1953:199) such as health or education. I will discuss the productive aspects of their use in a later section.

distinguished by economists -- that of "working capital", or goods held in stock by the entrepreneur during the period of the productive process and consisting of raw materials, intermediate products or finished goods awaiting dispersal. These goods are not easily recognisable in many primitive societies, though, for example, Firth deals with the stocks of food held by chiefs in Tikopia as working capital, and used to repay craftsmen for their work in building large canoes. In Siane the goods held in stock during the productive process are represented by the improvements to land, carried out but not "dispersed" and turned into income by crops being harvested. The improvements may be seen in real terms as fences built, seeds planted, weeds removed, and (on fallow or bush land) trees which have been tended.

The problem of adding together such disparate commodities to obtain one index of capital investment is a more difficult one.² It is present in monetary economies where the value of any capital asset is assessed in terms of money, usually on the basis of the initial cost of the asset minus a certain amount for

 2. Both Frankel (1953:36 et seq) and Kuznets (1953:192 et seq) deal with the problems of applying such accounting techniques to capital stock and national income. They agree that the measuring rod which is used necessarily applies to only one society. Implicit in its use is an assumption that the "end goals of the society" are the same, and the assumption is not valid as between different societies. Discussion of the "end goals of Siane society" occurs later. Here I wish to note the assumption, and make it clear that I am dealing with capital which produces goods to satisfy subsistence needs.

depreciation. Though this assessment is only an approximation, we should not expect to obtain a more accurate one for capital in Siane. The "cost" of capital goods in Siane can be determined in terms of the quantity of other goods which must be foregone if an individual uses his time to make capital goods rather than consumer's goods. More simply, the opportunity cost of capital can be measured in terms of time, and give us an index for comparing different levels of capitalisation. Depreciation (or the amount of capital consumed since the time the stock was made) is more difficult to estimate. But since even capital goods have a short life in Siane, and are continually being replaced, I propose to ignore depreciation in assessing capital stock, and to consider it when I deal with the replacement of capital.

A typical men's house group and its wives comprises (c.f. pp. 24 & 28) 17 adult male workers, 9 youths, and 17 wives, together with dependent children and old persons. This group of people owns in common one men's house. Together its constituent lineages own about 20 women's and pig houses, and have improved some 20 plots of land, each about 30 by 60 yards, which have not yet begun to yield income. The men own individually about 20 axes and their clothing of 30 net aprons. The women own about 30 net carrying bags, 18 bone needles, and 30 bark-cloth skirts and string aprons. Together with the improvements represented by trees, these possessions form the capital owned

by a men's house group.

To build a men's house, 30 men work for three days erecting the structure, and another six men thatch it in one day. Materials for the house are collected over a long period, and much old material is re-used, but I would estimate that 30 men could collect the materials in two days, while 30 women collect the thatch straw in one day. A men's house represents 186 man-days of labour diverted from other uses.

Three men can erect a women's house in a day, and one man thatches it in another day. I estimate that a man takes three days collecting materials, while his wife spends a day collecting thatch. The house represents 8 days of work. This figure, and that for men's houses would have been somewhat larger when stone tools were used, but against this can be set the fact that fewer pig houses were built in those days.

I could not observe the manufacture of stone axes, but Vial (1941:160) gives the following times for the manufacture of ceremonial stone axes around Mt. Hagen.

"It takes from half an hour to all day to chip out a good blank (of stone),...the polishing takes about three days; the carving of a wood handle a day; the weaving of the cane binding and other decoration two days. ..An ordinary axe would take less time for the stone is smaller and thicker and it could be chipped out more easily, and the polishing is less accurate. The handle has none of the decoration of the ceremonial axe; it is held together by a rough bark binding".

My own observations confirm that at least a day is needed to shape a handle, and another day to make an adze binding. A

total of six days would be a fair estimate of the cost of a work axe, including the transportation of the stone from the quarry to the village. Needles take about a day to fashion from cassowary bones. A woman takes about three full days of work to make a net-bag or apron, and a man takes a full work day to make a bark-cloth skirt. These latter objects are made during odd moments of the day, but my estimates are based on time spent in continuous work. To buy a steel axe at a Highland trade-store requires about 12/-³, or what could be earned in twelve days of casual labour for Europeans.⁴ The time taken to produce needles, axe-handles, and string-bags has probably not changed with the introduction of steel tools.

Clearing and fencing a plot of land takes one man twelve days, according to my observations. The man then spends another two days in planting, while his wife spends twelve half-days. Weeding during the period of growth takes the wife about fourteen half-days. The improvements represented by this labour depreciate as soon as crops begin to be harvested, but are then replaced by improvements on other pieces of land. They represent a stock in hand, not producing income at any one moment but continually

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3. The difference between this figure, and that used to compute the cost of items bought at coastal trade-stores is largely because of the extremely high cost of air freight on all articles carried into the Highlands.
 4. Such casual labour cannot often be performed by Siane men. I use this figure, rather than one-thirtieth of the monthly pay of an indentured labourer, since an indentured labourer also receives board, lodging and clothing.

being replenished by new working capital, when income is withdrawn. So it is with the cultivated trees on land owned by members of the men's house. I would guess that the trees represent some 80 days of work "improving" them by weeding or clearing undergrowth.

The time taken to improve a plot of land using stone tools has previously been estimated as three times as much as when steel tools are used. This would mean that fencing and clearing took about 36 man-days for each plot, although planting and weeding probably took the same amount of time as they do now.

The total amounts of real capital owned when stone tools were used was approximately the same as the amount owned at present, when new capital goods such as spades, bush-knives and European-style houses and clothes are only beginning to be introduced. What these items of capital represent in terms of labour cost is shown in Table 5, where the total amount of capital owned by one men's house is shown.

In both stone-using and steel-using times the "national income" of Siane can be taken as being the goods and services "costing" 365 days of work per worker. For a men's house where the labour force totals 40 able-bodied males and females, the "income" thus costs 14,600 man-days of labour. In stone-using times, therefore, my estimate of the total capitalisation of the society (1794 man-days) represented about 12% of one

consumption. The result has been a net disinvestment so that the total amount produced and consumed has remained constant. This disinvestment in capital has been accompanied by a decrease in the amount of labour put into production, from about 81% of a man's time to about 50%. In many ways this is the paradox of "technological unemployment", but in Siane the amount of labour taken out of use has not been substituted for by an increased amount of capital. The use of both factors has declined, although the use of labour has decreased a little more rapidly. It can also be seen that the adoption of the more productive technology has not been hindered by the presence of a large labour surplus.

There has also been a change in the pattern of ownership of capital. In stone-using times the largest unit of capital was that owned by the men's house group as a whole -- the men's house, representing 186 days of work. The next largest unit was that embodied in improvements to land, which were owned principally by the lineage. Individually owned items of capital -- clothing and tools -- formed only a small part of the total stock. In steel-using times the importance of lineage-owned capital has decreased sharply, while the individually owned items such as axes have increased in importance. The men's house has remained the most important item of capital. These trends may be linked with the two trends listed in the previous chapter -- the trend towards the fragmentation of society into individual units, and

trend towards concentration of power in the hands of 'big men', who form the nuclei round which men's houses are grouped.

The preceding analysis has been in terms of the total amount of capital held in stock at any one time. It is also possible to consider the amount of new capital that is replaced each year in the stone-using Siane economy and in the steel-using economy. We must assume (as has been done previously) that the Siane entrepreneur, being himself the consumer of his product and the provider of his tools, replaces his capital equipment as it wears out. If we know the life of each article, it is possible to calculate the average labour cost of the capital replaced each year.⁵

Steel axe blades last for many years, and twelve might be a conservative estimate even with the intensive use and sharpening axes receive in Siane. My observations of the use of stone axes suggest that they chip and are worn out in much less time, perhaps a year and a half. Axe handles need replacement each year. Bone needles last indefinitely. Men's dress lasts indefinitely, but women's skirts need replacement about every 18 months. Net-bags last about 3 years. Men's houses are rebuilt every three years, as are women's houses in the village, but new pig houses are needed more frequently as cultivation sites change, about every two years. The amount of working capital in stock at the beginning

5. Firth has calculated similar figures for the Tikopia (1939:256) and the present figures may be compared with them.

of the year is the same as the amount held at the end of the year, and this item can be ignored in an accounting of capital changes during the year. Table 6 presents an estimate of the amount of capital investment needed each year by a men's house group, based on these figures for the life of capital goods.

<u>Type and amount of capital goods</u>	<u>Amount needing replacement each year, in man-day units</u>			
	Stone-using times		Steel-using times	
	% replaced	Total	% replaced	Total
<u>Fixed Capital</u>				
20 axes	66.7	80	8.3	20
20 axe handles	100.0	20	100.0	20
		<u>100</u>		<u>40</u>
<u>Consumer's capital</u>				
1 men's house	33.3	62	33.3	62
20 women's houses	40.0	64	40.0	64
30 skirts	66.7	20	66.7	20
30 carrying bags	33.3	30	33.3	30
		<u>176</u>		<u>176</u>
	<u>Totals</u>	<u>276</u>		<u>216</u>

Table 6. Amounts of capital goods needing replacement each year for a Siane men's house group, when using stone tools and when using steel tools. The "percentage replaced each year" is based on the estimates of the life of articles given in the text. The labour cost in the column "Total" is obtained by taking percentages of the totals given in Table 5.

These figures show the same order of change as do the figures for amount of capital owned. The amount of capital replaced every year in steel-using times is only $\frac{4}{5}$ of the amount replaced every year in stone-using times. The average life of this capital has increased from $2\frac{1}{2}$ years to over $3\frac{1}{2}$ years. But Siane men have not continued to make the same amount of capital investment which they

used to make, and have not accumulated a surplus of capital by making more goods than were worn out. They have reduced the amount of investment made. In stone-using times 2% of every person's time was devoted to producing capital goods; in steel-using times only $1\frac{1}{2}\%$ is so used.

Another comparison is between the amount of labour used in subsistence production, and the amount of capital investment made. The stone-using society spent about 81% of 14,600 man-days each year for each men's house group in production, or about 11,800 man-days. Of this 276 days were spent in capital investment, or about one day in 43. The steel-using society spends about 50% of the men's time and 80% of the women's time in production, or about 9,500 man-days. Only 216 are used to make capital goods, or about one day in 44. But the figures of 11,800 and 9,500 man-days also represent the cost of the total subsistence output of the society, about $\frac{43}{44}$ of which are consumed and the remainder saved. This proportion ($\frac{43}{44}$) is what Keynes (1935:125) calls the "average propensity to consume" of the society. Insofar as Siane men tend to consume only the same proportion of any increment to production⁶ (as would seem probable in view of the relative stability of the

6. In concrete terms, if one additional worker entered Siane and used borrowed tools (i.e. did not increase the capital investment) it is likely that he would consume and invest the same proportions of his product as does the average Siane man. On the other hand a large increase in output (as when steel initially replaced stone) results in a negligible consumption of the increased product. The assumption that the marginal propensity to consume approximately equals the average propensity can only be true over a short range. Using these terms the present analysis attempts to show that it is the stability of the propensity to consume which determines the continuing level of capital investment, rather than the efficiency of the capital.

figure of $43/44$ despite the increase in productivity) this proportion is also the "marginal propensity to consume". If we know the marginal propensity to consume we can calculate the "multiplier" $(1/1-P_c)$ and in this case we can say that the multiplier has remained fairly stable at $43-44$. This can be compared with the multiplier for a typical western community, which Keynes says is between 4 and 5 (1935:121), although Colin Clark's figures (Keynes 1935:102) suggest that the multiplier was about 3 in the U.S.A. between 1924 and 1931.

To sum up the argument so far, we have considered the way in which levels of capital ownership and investment have changed with an improvement of the technology, and an increase in the number of goods owned in the society. Although the life of capital goods is short, and their quantity small, Siane men have been shown to allocate a certain proportion of their income (or time) to the production of capital. Regularly there is a conversion of savings into capital (c.f. p. 211).

But an increase in productivity and an improvement of technology led to only a very slight change in the proportion of capital used in production as compared to the proportion of labour. It did not lead directly to an increase in the real amount of the product. No lack of education or surplus of labour hindered the adoption of the new technology, but despite the Siane habit of regular saving and investment there was no increase in the amount of capital owned. The amount of labour used declined

and resulted in "technological unemployment" but, as has been shown in previous chapters, this freed labour has been used in increasing gima activities. The reason for the failure of investment of productive goods to increase with the higher productivity of capital is not difficult to see in the lack of any demand for increased amounts of the goods which the subsistence economy supplies.

Two conclusions stand out. Firstly that an increase in the productivity, or in the supply of capital is indeed important in the process of economic development in primitive societies, but that such an increase does not per se result in any increase in the output of the economy. A more productive technology may be a pre-condition for an improvement in the standard of life, but the demand for that improvement or for the goods constituting it may be the effective cause of an increased output. The second conclusion is that "technological unemployment" is not necessarily an undesirable consequence of an increasing use of capital. It may well be that the fact of having time set free provides the incentive to demand more goods, and so raises the overall level of production. The method of analysis illustrates the fact that "primitive" or non-monetary economies are not qualitatively different from monetary ones. They follow the same rules but are less complex.

So far I have equated "capital" with goods producing subsistence commodities, and I have not dealt with the "valuables" circulated in

gima activities. These valuables do form a stock of goods, withdrawn from consumption use, and eventually dispersed, but no increment to them is produced by their use. It might be argued that, for example, children are "produced" through the use of shells in a bride-price, but such an argument would be stretching the use of the term "produce". On the other hand, if one considers a ceremony, in which valuables are handed over, as producing "services"⁷, it is possible to treat the valuables as a body of "working capital". The time that people spend in the ceremonials represents labour, and both capital and labour are needed to make the finished "product". I will not attempt to justify this extended use of the term "capital" for, in realistic terms, whatever services are produced by a ceremonial could be produced by the labour alone, without the use of the tokens which are handed over. The valuables are incidental to the production of ceremonial "services" not the producers of them. However, I wish to show that these commodities behave like capital, in their response to an increase in supply, and in their effect on the use of labour.

In the stone-using economy valuables were in short supply. I have no figures of the number of shells or other valuables owned by "big men" during stone-using times, but (c.f. p. 133) it is probable that a "big man" rarely owned enough to pay a full bride-price. In other words, "big men" owned one or two broken shells each, while

7. The nature of these "services" and their place in the system of economic values in Siane society will be discussed in Chapter 8. Here I wish to beg the question of whether these services can be treated as comparable with goods, on the plea that the assumption proves heuristic in the ensuing analysis.

unimportant men owned less -- either none at all or possibly one. Three shells and numerous smaller valuables now represent what is owned by a young lineage head, whose years of financing are ahead of him (p. 198). Unimportant men also own valuables.

Much of this increase can be attributed to the return of indentured labourers, but not all of it. A men's house with six "big men" and 20 youths or unimportant men might now own about 2800/- worth of valuables.⁸ Of this amount (calculated for 1953) part would have been provided by the one labourer who returned in 1951 and part by the four labourers who returned in 1953. If each labourer brought back about 220/- worth of valuables, this makes a total of 1100/- worth brought back directly from the coast, but leaves 1700/- as the amount accumulated through the native channels of gima activities. This amount could be considered as some 60 gold-lip shells (at 30/- a shell) and could be compared with the amount presumably owned during stone-using times, of about 12 broken shells. The capitalisation of the gima activities has thus increased about five-fold during the period of indirect contact and autonomous economic growth.

The amount of "labour" employed also increased from about six percent of a man's time to eighteen percent, or a three-fold increase.

 8. This figure is calculated from the figures given on page 198, assuming that these figures represent averages. In fact, the lineage yarafo probably owns less than an average "big man" although the unimportant man may be typical. The figures are more likely to be under-estimates than over-estimates.

Here we have a situation where new capital became available, was eagerly accepted, and was accompanied by an increase in the amount of labour used. There is no way of judging whether the ceremonies now produce more "services" than they used to do, but it is undeniable that there is a demand for these services. This is evidenced by the great increase in the number of people going to ceremonies. The presence of an elastic demand for products of "capital" can be seen as a vital factor in increasing its use. We can agree with Frankel who says (1953:98) that "the way to accumulate capital is to make the best use of that factor which is most abundant i.e. labour -- not to displace it by capital which is relatively scarce", for the valuables represent capital which uses much labour to produce its product. If the demand for products is present, then the capital will accumulate. If the products are intangible, like the "services" of gima activities, then it is easier to use more labour, and to accumulate more unproductive capital. The remainder of this chapter will be concerned with showing that the accumulation of capital, albeit "unproductive",^{8a} may become an incentive for the accumulation of "productive" real capital, and a spur to increase the per capita real income of the society. We will then be in a position to discuss the changes in demand which have been adduced as a determining factor throughout.

 8a. In many ways the use of "capital" in gima activities resembles the "pump-priming" use of burying bank-notes or building pyramids cited by Keynes (1935:129) as a method of stimulating demand and investment in consumer's goods industries.

Capital Changes after the return of Indentured Labourers.

The first part of this chapter has described capital in Siane when steel tools had been introduced, but no consumption goods or new productive methods. It has described Siane and its changes during the period 1933 to 1951. With the return of youths from indentured labour new types of capital investment have become available, mainly of the type of "consumption capital". Returned indentured labourers have laplaps, not only as vaulables, but as clothing, together with singlets and shorts. One torn blanket may be retained by them; they use basins and bowls for serving food, and kerosene lamps are brought back, to provide service over a long period. Other indentured labourers, and some village officials are beginning to copy European methods of house building, and are making houses raised slightly off the ground, with walls of woven cane some six feet high, doors that open on hinges, and beams that are held together by nails.

There has also been a slight increase in the number of fixed capital goods owned. Many men own a machete (pidgin busnaip) as well as an axe, for use in clearing undergrowth. A few spades are kept by village officials,⁹ and used when Government work on roads or rest houses is to be done. Spades are not brought back by indentured labourers, probably because the garden work, in which spades might be useful, is women's work. Men do not turn the soil and do not feel the need for acquiring the tools to make it easy.

9. These spades are actually Government property, but have been "written off" by the Administration.

Each of these new capital goods requires for its purchase a lump sum of about 6/-. As has been shown (p. 197 et seq) it is difficult to retain any large sums of money, in view of the frequent obligations to entertain visitors. It is even more difficult to accumulate a lump sum by selling occasional small amounts of produce, or by casual labour. Most of these new capital goods can only be obtained by indentured labourers, who then distribute them to other members of their clan in re-aggregation ceremonies.

The typical men's house, as a result of four of its youths (or one-fifth of the male members) working as indentured labourers, might now own some ten machetes, two lamps, three enamel basins, and three worn blankets, and some ten of its stock of "valuable" laplaps might be in use as clothing. The cost of these goods would be about 180/-, but, from the point of view of the men's house, they would be acquired at negligible cost. The youths who leave the village would only have spent one-fifth of their time (c.f. Appendix A) productively, if they had stayed. Such capital is thus a windfall accumulation.

But to replace this capital as it wears out requires more effort. Machetes, basins and lamps last at least until the next windfall arrives as the next batch of labourers return. But clothing wears out if it is used, as do blankets, and lamps require maintenance and fuel to maintain their usefulness. In all some 100/- worth of goods would be needed for replacements each year, but this replacement does not seem to be made. The number of

laplaps or pairs of shorts being worn declined steadily during the eleven months after the return of a group of indentured labourers; lamps without wicks or fuel, and blankets with huge holes became increasingly common as the year wore on. The money kept by the labourers not only does not provide them with valuables, it does not keep their newly acquired goods in condition to give service.

In short, the potential increase of capital investment, which could be caused by indentured labour, is not realised, and most of the capital gained is allowed to deteriorate because the native system of sharing luxuries prevents any individual accumulation of wealth. The effect of the returning labourers is largely felt in the realm of gima activities, since most of the goods they bring back are used as "valuables". To the extent their labour does lead to capital accumulation, however, the capital goods go into the hands of individuals. To the extent that other members of the clan make new-style capital investments in spades and European-type houses, these are capital goods owned by the village or by the whole men's house group. The tendencies are the same as those noted previously for native capital ownership.

Tendencies towards individual accumulation and entrepreneurship

The previous section, and the description of the return of indentured labourers, have demonstrated the social pressures which act to prevent any individual accumulation of capital above that which is necessary for ordinary subsistence activities. Only the

accumulation of indivisible "valuables" by "big men" is encouraged. But the returned labourers, most of whom are between the ages of 16 and 20, do not enjoy distributing what they have earned by work more strenuous and continuous than the work in the village. Not only must they share with clansmates, but they must give gifts to distant affinal kin who are unlikely to make any return.

Another complaint arises from the native concept of sharing. Any man may use an object belonging to a clansmate, when it is not in use by him. Hats, footballs, clothes and lamps are borrowed and worn out by the more numerous stay-at-homes, who are less careful, less knowledgeable and less scrupulous about personal hygiene. Returnees complain bitterly about breakages, and about the "dirty kanakas" who make their clean clothes filthy.

The returned labourer does retain about £5 worth of valuables and cash, however, and this represents about one-fifth of his eventual bride-price, earned while he is still under 20, and without incurring any indebtedness. In the indigenous situation he would only accumulate valuables when his wife raised pigs for him, when his father died, or when his sisters married. He would spend many years repaying his indebtedness before he could contribute to others' payments and join in the councils of the clan. Now the indentured labourer need not incur such debts, or can pay off his debts sooner. The net effect is to make him less dependent on the support of the older men of the lineage, more able to flout the customs of sharing, which are sanctioned by the need to keep

the support of others, and more able to behave as he wishes. No breakdown of the native authority system is immediately impending, but the younger group made many complaints. Their independence would be in accord with the more individual pattern of capital ownership.

The greatest independence is shown by those who leave their villages to find more permanent employment, mainly in Goroka as police constables or medical orderlies, as servants for Europeans, or working for missions. Only 25 men were so working in a population of 6,000 covered by my census, but they seemed to be among the most active and intelligent men in the society. They receive schooling in the police or medical service, and most medical orderlies can read and write pidgin. All such workers learn European skills; they earn regular pay, which increases with experience; they copy European techniques of organisation and management. No native can directly order any other in the indigenous system, but police constables give orders in parade ground style. Medical orderlies order the draining of potentially malarial swamps, or the carrying of patients to hospital, and will use force to ensure that their orders are carried out. House servants hire younger boys (pidgin manki) to do chores for them, and give more peremptory orders than do their masters, while if they visit their home villages with their masters, they are distant and aloof with their clansmates. These men not only have the best opportunity of acquiring capital,

but are best equipped to use it productively.

But it is on these natives that the strongest pressures are applied to distribute their wealth. Any fellow-villagers who come to town, stay with them and expect to receive presents, having arranged their visits to coincide with the monthly pay-day. For his part, the employed native has no resources for entertainment, no wife¹⁰ to bring food, and no garden with tobacco growing in it. Unless he uses his master's supplies, and so incurs his displeasure (as often happens) he must buy tobacco, salt and food with money, and must use money as a gift when the visitors depart. If the visitors bring a present it is usually food, such as sugar-cane, for which the worker has little use, since he is liberally fed by his employer.

Natives in employment recognise this drain on their resources, and try to obtain employment at a distance from home. Those who cannot, use subterfuges to disguise their wealth, often saying that their master only gives them five shillings a month, and concealing the fact that a lump sum is being held for them by the European. One constable from the northern edge of Siane, who had been employed for about ten years in Port Moresby, and other distant areas, had been able to put about ~~£~~600 in two Savings Bank accounts, but still was able to appear poor.

My own servant, whose village was 13 miles from my house

 10. Married workers rarely bring their wives to Goroka, but leave them in the villages to be "looked after" by other clansmen. The man who makes houses and gardens for her expects presents in return for this service.

got me to confirm the same excuse which he often gave to his visitors. He planned to use his capital accumulation productively, after I left, but had to adopt another subterfuge to prevent his capital being dispersed. He wished to breed chickens for sale in Goroka, and let it be known that he was buying birds on my behalf. He told any visitor that the birds in his chicken pen belonged to me and could not be killed for entertaining. Unfortunately his desire for quick returns led him to sell his fattened hens rather than wait for eggs and chicks, and the action of marauding dogs brought his venture to nothing.

Another man -- the paid Government interpreter for the Siane area -- thought of buying chickens and pigs in less sophisticated southern groups, and selling them in Goroka for a profit. Through me he bought several pounds of beads, but managed to prevent his wives from demanding he share them, only by saying the beads were mine and that he was buying chickens and pigs on my behalf. He talked of setting up a trade-store, but his trading was largely unsuccessful as, he said, natives would have been prepared to trade with a European but would not sell to another native.

These examples show how, if a worker can accumulate money capital, he thinks of setting up an individual business. The policeman with £600, perhaps the wealthiest man in Siane, aimed at buying a jeep to carry produce into Goroka. Such men take as their model a native from near Goroka who has nine "wives", to whom he

gives periodic large "gifts" for working a market garden. He sells produce to the Government hospital and police barracks, and at one point had cornered so much of the supply of sweet-potatoes that the Administration had to send out trucks to buy his produce, instead of waiting from him to bring it in for sale. In addition, he has provided capital for some small native gold-washings, including one in the southeast of Siane territory. He is said to be "man olosem masta" -- "a native who is like a European", and is the ideal over a wide area, of which Siane is a part. To be like him, to accumulate capital, and to use it productively in an individual business is the goal of the few educated Siane. It is a goal which is opposed by the native system of sharing.

Corporate capital ownership

The opposition to individual capital accumulation is not entirely negative, for in some cases whole corporate groups are beginning to accumulate productive wealth. This process began in 1952, when, as a result of the Agricultural Extension Department's action, it became feasible to grow cash crops.¹¹ The main obstacle to cash-cropping had been the lack of a satisfactory market, and in 1952 the natives were clamouring for an airstrip, where Europeans could buy their produce and fly it out to Goroka and the coast. When I left the field in November, 1953, the natives were completing an emergency landing ground in the south

11. C.f. page 202 for a discussion of why the market for garden produce was unsatisfactory.

of Siane. If it proves an economic proposition for a European to operate a trade-store and purchasing station there, and to fly out native produce a great fillip will be given to native cash-cropping. The twenty or so days of levelling work by the ten or more tribes in the area will represent a large corporately owned capital investment.

A similar development to the north is the jeep road completed by local native labour, with European supervision and with Europeans building the bridges, in October, 1953. At first there was native opposition to the seemingly pointless work on the road, especially when the breaking of stones made it uncomfortable to walk barefoot on it. But soon after the first jeeps travelled the road, and the first purchases of produce were made by travellers, opposition vanished. Natives work on the road every Monday without supervision, on the day for "Government work". This work can be regarded as maintaining a fixed capital asset of the society.

Some investment in road building occurs in the rest of Siane on Mondays, but none of the tracks are passable to wheeled vehicles. Some progressive villages have levelled long stretches, but other groups are apathetic. Since difficult engineering work would be needed in some places to turn the tracks into a road it is unlikely that they will be made passable, and the improvements turned into capital development. Nevertheless, the improvement of transport and communications is the most promising means of native capital

investment to assist cash-cropping, and it is a means which would put capital in the hands of large corporate groups.

The other means of capital investment has involved the growing of crops where transport to market does not entail so much work -- such crops as coffee and passion fruit.

Passion fruit was introduced in 1952 and was beginning to yield in 1953. Visiting Europeans (including myself) were able to consume the small 1953 crop, but the 1954 crop promised to exceed the local market greatly. In 1953 an Australian firm set up a plant in Goroka to pulp and export passion fruit juice, but since they only paid 1d a pound for native-grown fruit, Siane natives did not carry any fruit in to Goroka. There was talk of raising the price, but by November, 1953, this had not taken place. If an increase in price made passion fruit an economical crop, then the planting of vines and the construction of supports for them will present another avenue for capital investment by individuals in Siane.

A few coffee trees in Siane bore berries in 1953 and there was a prospect of some economically significant production in 1954. In 1953 world coffee prices were at a peak, and it was possible to offer native growers 1/- a pound for dry berries in Goroka. The prospect of a return of 30/- for carrying one load into Goroka certainly acted as an incentive to grow coffee trees during my stay.¹² Many natives went to the Government nurseries for

12. How far the slump in world prices in 1954-5 affected Siane growers I do not know.

seedlings and instruction.¹³

Since coffee trees need extensive care in providing shade and shelter for young plants, and yield a crop with little annual work, they form an excellent capital investment. At first such investment was done on an individual basis, with men planting single seedlings beside their wife's house and treating them with the care given to special flowers. The same pattern was followed with passion fruit vines which were planted singly and allowed to climb over nearby casuarina trees. One village, however, under the leadership of a progressive luluai, set up a nursery for coffee plants, some 30 feet square and complete with artificial shade, drainage and deep-dug soil. In 1953 a site was prepared for planting out the trees in rows, contoured around the hillside, and using crotalaria as a temporary shade. Two other villages were following this example in a slightly less efficient way.

In the case of the efficient village the erection of the nursery was a clan project, but groups of plants were owned by particular lineages. The holes for planting trees were dug by lineage members on land of which they were merafo, but the whole area was continuous, as is a large clan garden, and was surrounded by a fence built by the whole clan. In other words, the indigenous

 13. Some time before the Agricultural Department began to introduce arabica coffee, the Lutheran Mission distributed seedlings of robusta coffee to their evangelists. The result is that purchasers of coffee are never sure that native-grown coffee is 100% arabica, unless they make detailed inspection of it. Unless the robusta coffee is eradicated native-grown coffee may well fetch a much lower price than it otherwise would, as buyers will be unwilling to risk getting a mixture.

system of "help" within the clan for large enterprises, but individual or lineage ownership of crops and improvements to land is being used. To the extent that large work-groups are necessary for starting coffee growing, the power of the clan as a capital-owning group may be expected to increase, while the use of lineage labour and land in the planting of trees, and the profits which will presumably also accrue to lineages, are likely to maintain the importance of the lineage as a capital-owning group.

Summary

A definition of capital in terms of the stock of productive goods owned at any one time, and used to increase the supply of goods rather than consumed directly, permits us to identify fixed, consumer's and working capital in Siane. Measuring this capital in terms of its opportunity cost enables us to compare the process of economic change in siane with that outlined as "the development of under-developed countries". It is shown that the acceptance of a more productive technology does not automatically lead to a rise in total capitalisation, in the investment of new capital, or in the total product of the economy. An increase in the demand for new products is also necessary before new investment is made. More productive capital leads to a more efficient use of labour, and possibly an increase in the amount of capital used per unit of labour, and it gives rise to technological unemployment. Technological unemployment in Siane has set up a demand for new products, and may prove to be the spur

to an eventual increase in capitalisation. This process has been shown to occur in the economic subsystem producing "services" of a hitherto unspecified kind -- the gima activities -- where capitalisation has increased many times.

The block to capital accumulation by individuals has been shown to be the social pressures towards sharing, and towards spreading any increase in wealth throughout the group in such a way as to make the increment too small for investment. This difficulty is partially overcome by natives who work away from their villages, and who use subterfuges to prevent capital dispersion. Such individuals tend to think in terms of setting up privately owned businesses, which would break up the native systems of co-operation.

Capital ownership by large groups is also increasing, however, through the Government-encouraged creation of public works. To the extent that these public works lead to an increase in cash-cropping, and to the extent that the new crops require the co-operation of large groups, this form of capital ownership will help maintain the existing organisation of native groups.

The problem in Siane is not one of maintaining the existing level of output. There is no danger of new capital investment falling below the maintenance level of one forty-fourth of all output. The difficulty is to provide a demand for the products of greater investment, and then to ensure that the investment is made and not dispersed into non-productive atoms, which are consumed.

Chapter 7

Changing Demand

The previous chapter has shown how technological changes and a more productive use of capital are a pre-requisite to economic development, but how the nature of demand can be a determining factor, whether development takes place or not. Changing demand has been described reconstructively in Chapters 4 and 5, as the substitution of new commodities for old ones in existing economic activities. From a different point of view this substitution could be regarded as a change in an existing pattern of demand. It then becomes important to study similar, present-day instances of changing demand to see what light is thrown on the more general processes of change.

Just such an instance was provided by my own presence in Siane. I was isolated from European supplies and needed food, fuel and services from the natives, while in return I had to supply them with goods they wanted. Previously no nearby source of European goods had existed, and my arrival enabled an existing demand to become effective, while also causing changes in that pattern of demand. The goods I supplied formed only an infinitesimal part of the total economy of the tribes with whom I had dealings, though I have no means of comparing their importance with

the importance of garden produce, for example. I also cannot measure the amount of effort devoted to obtaining goods from me but I feel sure that it was negligible. I am sure too that my presence did not change appreciably the amount of subsistence goods produced. But this relative unimportance means that the goods so obtained were "marginal" goods, which could easily be dispensed with, but which would be most susceptible to an increase in demand, provided the supply increased also. In other words, the commodities taken from me by the natives provide a sensitive index of the changes in demand patterns.

When I started to record what goods were demanded from me, I did not anticipate that there would be changes, but merely wished to see how Europeans were fitted into the native system. I wished to disturb the native economy as little as possible, and insofar as I was successful, the changes I observed can be considered as the way in which the native economy took advantage of my presence. The categories I use for a description of these changes are thus native categories, rather than categories derived from economic theory. In the analysis an attempt will be made to relate these native categories with orthodox Western ones.

To give meaning to the figures representing demand, I shall first describe the methods by which I collected my data. This description shows how I had a single, monopolistic market which could be manipulated so that only the factor of demand varied independently. This manipulation was principally one of fixing

prices, or the exchange rates for converting native effort and produce into European goods. Even here, as I show, I followed patterns already existing in the native system.¹

Setting up the experimental situation.

I arrived in the Highlands at Goroka airstrip. At that time the "town" of Goroka consisted of some storage huts near the airstrip and a recently abandoned Government office all built of native materials, together with a dozen or so buildings of wooden construction and metal roofs, including a new Government office, bungalows for Government officers, and five trade-stores attached to the houses of their European owners. To the north of the town was a native police training barracks, a native hospital (including many huts for quarantining labourers newly returned from the coast), and a "compound" where natives were housed who were working for the Government locally, or who were waiting to depart for indentured labour. All these native "services" included houses for the Europeans in charge. Outside the town but within a restricted radius were about a dozen European farms and several mission stations. Centrally situated between the town, the native section, and the Agricultural station to the west of town was the Goroka Sports Club,

1. Only after my return from the field did I compare my experiences with those described by Firth (1939:377) when he was on Tikopia. His list of exchange rates shows the phenomena I observed in Siane, but he does not fully explore the implications of the distinct categories of demand in the native economy. He notes descriptively the interplay of supply and demand even in a monopolistic market, but does not give systematic figures. In a sense this chapter is a more systematic exploration of many of the hints given by Firth.

the largest building.²

I was told by the A.D.O., the Agricultural Extension Officer, and Dr. K. E. Read that the people near Fira Rest House, 30 miles or two days walk from Goroka, were "quite different from the Goroka natives". They had been visited by five patrols, and there had been tribal fighting in 1947. There was no mission in the area which had only recently been declared "controlled". The country was rich and plenty of pigs and food were to be bought. I accordingly decided to make Fira Rest House my headquarters.

More specifically I asked what I should take with me to pay for native food and services. People who had visited the Siane area within the preceding six months agreed that the natives wanted small tambu shells, beads, newspaper, twist tobacco and salt. Natives nearer town would take cash in the form of three-penny pieces but there was no demand for cash in Siane. I asked advice from the trade-stores on what to take as gifts, and was told that plastic bangles, face-paint, small knives and axes were suitable. Large gold-lip shells were much desired but were expensive and unobtainable at the time. I laid in supplies of all these articles, sufficient, as I hoped, to last me for three months.

I also wished to know how much to pay for goods and services.

 2. This is a description of Goroka in November, 1952, when great building programmes were starting. By November, 1953, remarkable changes had occurred. Goroka town had over 300 inhabitants, almost all buildings were metal-roofed and street names were posted. A flourishing "pub" completed the picture of Australianisation. The first picture gives a better impression of how little influence there was on native life, and how small was the supply of European goods. See also Simpson (1954:115).

Here I had two guides. Firstly the Government which buys much native produce for feeding policemen and hospital patients had a fixed set of prices and procedures for purchasing. Each day a native orderly waited at a large shed at the edge of the hospital grounds with a huge spring balance, (kilok in pidgin) weighing the net-bags of produce which women brought, and paying for them in cash. The rates he paid were listed on a grimy sheet of paper, and were then $\frac{1}{2}$ d a pound for native vegetables such as sweet-potatoes, yams, taro, bananas, and native spinach, and 1d a pound for European vegetables of all kinds. He used only silver coins in payment, paying to the nearest multiple of 3d. I decided to use the same method and to fit myself into an accepted system, while also habituating unsophisticated natives to the government's methods. I was told that "in the bush" I needed to pay only a fraction of these sums of money as natives would give me loads of produce for trifles, but I decided to pay the Government rates, except for the fact that my spring balance was marked in 4lb and 8lb units and it was easier to show one "mark" as equivalent to 3d for European vegetables, and two "marks" as equal to 3d worth of sweet-potatoes.

In the second place, the Native Labour Ordinance prescribes the payments to be made for native labour, the amounts of food and tobacco to be given an employee each week, and the issues of clothing, dishes and blankets which must be provided. For indentured labour the minimum pay is 15/- per month, while for

casual labour pay of 1/- a day is appropriate, together with food, or cash in lieu of it.

I was told that people in Goroka paid about 3d for eggs and about 5/- for chickens, and after discussing these figures with my Siane informants I decided to pay these sums in the field.

When I asked about the amount of trade-goods to give for food, the answers were vague. "If they bring in a bilum of sweet-potatoes, give them a spoonful of salt or so". I decided to make my payments equivalent to a cash value and obtained an estimate of what could be bought at a trade-store for 3d. Prices varied, but I had an estimate to guide me. In general I was assured that I would be able to "live off the country", that the natives would accept whatever I did, and that I was going to be on my own in almost "new" country.

I also needed personal servants, but within a day of my arrival in Goroka I was approached by two natives who had heard I might go to Siane, and who asked, through the employer of one of them, if I would employ them. They came from Yamofwe tribe on the northern edge of Siane, and had had considerable contact with Europeans. They spoke Siane but had no connections with the Fira area, so I did not anticipate much involvement with relatives.³ One had been a cook, and the other a medical orderly. Both agreed

 3. I was warned that wantoks or "relatives" would strip my cupboard if I employed local boys. As it turned out, the biggest advantage was the fact that the servants' pay was not fed back into the economy of the nearby village. But see p. 254. One servant married a local girl (c.f. p. 159) and left after six months.

to be paid at the minimum rate for a trial period, but I later increased their pay when they proved satisfactory.

My biggest problem was to carry my stores out to Fira, but with the help of Dr. K. E. Read I obtained the services of 45 carriers from one Goroka village. Provided with what I thought was an adequate supply of small coins to pay the carriers I cheerfully set out on the first 3,000 foot climb between Goroka and Siane.

Disillusionment set in. After we had forded the Asaro River which was shoulder-deep and swiftly flowing, the carriers refused to move unless I made an advance of pay; half-way up the mountain, when my own resistance was at its lowest, came demands for higher pay; at the mountain top where they left me, I could not get 45 individuals to carry for me, and had to move half my goods at a time, from one village to the next, and then go back to collect the other half; in what was supposed to be an unsophisticated area the only payment demanded was "money". My servants were invaluable in seeing that nothing was lost, but the journey took three full days. At the Rest Houses where I camped immense quantities of food were brought by the natives, and I felt compelled to buy all of it "to establish rapport". Round my fire in the evenings I was always told "Don't go to Fira. It is a cold place. Stay with us. We will look after you." I began to realise I was being treated as a source of easy income, to be exploited to the limit that I would allow.

When I arrived at Fira, near Antomona clan village, Emenyo

tribe the "exploitation" continued. Vast supplies of vegetables were brought in, and I felt obliged to purchase them; my house was invaded by local 'big men', who all expected favours -- especially tobacco; when I asked natives what they wanted in payment for produce they always said kifana -- the native word meaning "stones" but now also meaning "coins". If I said I did not want any vegetables, I was told "I have brought them a long way just to give to you. I will not take them back. Accept them for nothing". But I knew that a "free gift" in Melanesia usually demands a return gift.

The climax came when a village arrived, led by its luluai, and all the men had brought huge cabbages weighing about ten pounds each, while the women had brought net-bags of potatoes. The heap in front of my door contained, at an estimate, a quarter of a ton of cabbage and about half a ton of potatoes. Ruin faced me if I continued to buy everything, and I decided to take a stand. A crowd had assembled. I took a few vegetables as a token, and made a long speech in pidgin pointing out how small my household was, how I wanted to stay for a year and buy produce but could not if they brought too much, and how the "fashion belong whiteman" was to buy things as he needed them, giving an immediate and fair return as was indicated by the kilok. I handed over a few beads as the equivalent of what I had taken, and waited, expecting a riot. Instead there were appreciative murmurs from all sides, the luluai who had brought produce made a speech

in Siane and held out his hand for me to shake. In pidgin he said he wanted to do things according to "fashion belong whiteman". That evening the crowd in my house told me that people were bringing food just to take advantage of me, that I should just take what I wanted, and that I was silly not to have done so before. From this time, a week after my arrival, my position as a steady small market for native produce or services and as a small supplier of European goods was, I think, established. I had learnt many lessons the hard way for my supplies of coin and trade-goods were depleted, but I knew where I stood.

I had learnt also that there were no local differences in the crops grown. I had tried to keep records of my expenditure,⁴ and had hoped, by recording what types of produce were brought in by different groups, to get some index of the different degrees of contact of the various groups. This was not possible, but by questioning all natives who brought produce I had learnt some of the language, and the names of most of the local groupings. I had also become a familiar figure to thousands who had come to visit me, and I had fallen into a routine of sitting in my doorway typing notes, and talking to or medically treating anyone who cared to come, whether they brought produce or not.

My attempts at recording also showed me the need for establishing "exchange rates" so that I could note down what I had bought, what I had given in exchange, how much of it, and to whom, with the minimum

 4. I thought (mistakenly) that the University required an account of the expenditure of field-work funds.

of effort. It would make matters simpler to keep the rates constant, rather than vary them according to demand. In fixing my rates I used the trade-store prices as a guide. I discussed my problem with my next-door neighbour, a missionary who lived 15 miles walk away in Chimbu sub-district. He stressed the high cost of freight on goods. Thus a 56lb bag of salt costs $23\frac{3}{4}$ on the coast; to fly it to Goroka from Lae costs $51\frac{1}{4}$; three natives take about four days to go from Fira to Goroka and back, collecting the salt, and must be paid about 10/-; five or six pounds of salt are usually lost in the rain. The total cost is thus about $1\frac{1}{8}$ a pound. Yet another factor was that I wished to make it preferable to natives to take trade-goods rather than cash, so that I could find out what their preferences were. But I did not want to fix my rates much below those of the trade-stores, for this would damage my relations with other Europeans and make natives distrust them.

The rates I finally decided upon, in view of these considerations are shown in Table 7. After the end of my first month in the field, when I had to return to Goroka to replenish my depleted stocks, and except for one or two days when I was unable to collect my supplies, I kept sufficient quantities of all small articles which natives wanted. I also adopted a different procedure for purchasing supplies.⁵ Instead of asking the seller what he wanted in return, when I took the produce, I always gave cash, but then allowed the seller to convert the cash

5. While in Goroka I checked with the Administration that this did not infringe the regulations against "Trading with Natives".

<u>Article</u>	<u>Quantity</u>	<u>Cash Equivalent</u>
Glass beads	Teaspoonful	6d
Small cowrie (tambu) shell	Teaspoonful	3d
Salt	2 teaspoonsful	3d
Newspaper	3/4 of a double sheet	3d
Twist tobacco	Stick	9d
Face paint	Teaspoonful	1/-
Hard soap	Tablet	1/-
Plastic bangles	Each	9d
Razor blades	Each	3d
Needles	Each	3d

Table 7. Exchange rates of trade-goods and cash used for purchasing native produce and services in Siane.

into trade-goods at his leisure. In this way I could speed up my own purchasing, permit the natives an unforced choice of what they wanted, and let them see more of the nature of transactions with Europeans.⁶ I kept records for the next ten months until shortly before my departure, when my stocks became depleted, and the imminence of my departure caused "stocking-up" among the Siane.

My daily routine during this period shows how I fitted into the native system as market and supplier. As I ate my breakfast people from nearby villages called on their way to the gardens, with cuts or headaches for treatment, or eggs and pawpaws for sale. I worked in the mornings, writing or visiting gardens, but on my return for lunch was greeted by people from distant groups with net-bags full of produce, and wounds needing patching. I took one or two vegetables from

6. Following the native trading patterns meant there was often a delay in converting cash into trade-goods (see below), and I could not be sure that I was not converting a different person's cash into trade-goods. Hence my checking whether I was infringing regulations. In the figures which follow I have subtracted the value of goods taken from the amount of cash given to the individual or group during the preceding two days. At no time did I give out more goods than I had previously given in the form of cash.

each person, but took all purely European vegetables such as radishes or peas. I gave them cash for what I took, and some native tobacco to smoke, and they sat talking while I ate my lunch and typed up my notes. When they came to say goodbye, and to shake hands before leaving for their six or seven mile distant villages, they gave me back my coin and shyly said they wanted beads or some particular commodity. I attempted to discourage people from coming long distances, bringing me goods I did not want, and causing me embarrassment when I refused to buy. The flow of visitors did decrease but luckily never dried up completely.⁷

By the time my typing was finished, the women of nearby villages were returning from the gardens with sweet-potatoes. At first I took the minimum amount I could pay for with cash -- 8 pounds -- from each of the first few, and turned the latecomers away with perhaps a lick of salt for their babies. Later I realised that they all wanted a pinch of salt to eat with the evening meal, and it became a custom for each woman to leave a tuber at my house in return for a morsel of salt. I did not record these transactions but felt that I was being included in their lineages, eating a small portion of their produce and providing a small portion of the food.

 7. In the early months I found that what I, as a European, had been able to refuse at the front door, was taken to the kitchen door and "given" to my cook, who, as a native, could not refuse it. He then had to give a return gift either using his own salary (c.f. p. 235), or the household supplies of salt. When I realised this, I told my bois to call me in, and tell the visitor he had to give the food to their "father", as I was termed in the kinship terminology. This arrangement proved satisfactory although it also involved me in providing part of the bride-price of one boi, and in many other ceremonial exchanges.

The next visitors were the youths who brought me firewood. A group of youths with five or six bundles of twigs would leave one with me and would receive a half-sheet of newspaper. As I burned only two or three bundles of wood a day I was always offered more than I could use or store, and my relationship with the youths became similar to the one I had with the women. I was "part of the family" and did not record my transactions.

The men returned home last and stopped at my house to smoke, to discuss the day's events and to try to get me to arbitrate in the day's disputes. I asked them to answer any questions which had come up as I typed the day's notes. Occasionally they brought chickens, bananas, yams or sugar-cane and took payment in goods or cash. At no time was I short of vegetables, for, when vegetables were not for sale during ceremonials, I and my bois were included in the food distributions.

My participation in ceremonials started early, when I watched several weddings in distant villages, and was presented with legs of pork in the distributions. These provided meat for my household for some days. About two months after my arrival a pig broke into the garden next to the Rest House and was killed.⁸ The owner of the pig came to me with tears in his eyes, saying that he had no reason to distribute any pork, and asking what he could do with the animal.

 8. At the time I thought this was an accident. Later I felt that this was unlikely, but could not check. The pig belonged to Waifo clan, Komunku tribe, and the cash I gave for it forms the bulk of the abnormal amount of money Waifo received in January (see Table 10, and Appendix B).

A crowd had gathered to hunt the pig, and some men suggested I could buy the animal and pay off my debts. I did so, paying 15/- for a thinnish animal, and it was cooked amid great jubilation. I distributed the meat at a ceremonial gimaiye, paying off my debts and making some presentations on my own behalf. After this I found that I received some fresh meat almost every week. I kept a list of all presentations I received, and when my debts mounted, I hinted that I felt I should make a distribution. At such times it "happened" that a pig was accidentally killed somewhere near, and brought to me for disposal. I did not ask questions. The amounts I paid are included in the figures which follow.

From this participation in distributions I learned my position in native society. I realised the storage function of the distribution of pork. I felt for myself the weight of obligation when one has not repaid a presentation, and the unholy satisfaction of being "one-up" when one has made a free-will presentation to someone else.

I also paid for services. Most often I was asked, by men from the nearest village to my house, whether they could go to Goroka for me to collect my mail and groceries. I had to send someone who could talk pidgin and arrange my business with people at the airstrip or Government Office, but he would take a friend (or several men if he was to collect stores) with him. I paid such parties at the rate of 1/- per man per day, and also supplied them with paper, tobacco, matches and small change to bargain for food

with. I sent parties to town every two or three weeks, and only rarely, for example, when the nearest village was occupied with a wedding, had to ask for volunteers from more distant villages who were less blasé about earning money, and who vied for permission to run my errands.

When I went on journeys and needed carriers there was always a crowd of eager volunteers, and I had to limit the numbers by refusing to pay more men than were required to carry my boxes. Even so, others came too to visit distant parts under my protection, living off the food I bought and the pork I received at ceremonials.

In short, I was fitted, more by the natives than by myself, into the existing economic system, as a small extra consumption unit and as a supplier of certain goods, about which the natives already knew, but which had previously been difficult to obtain. My wants could be satisfied from the existing surplus of produce, and my presence provided the means of converting that surplus, and the surplus of time, into more desirable commodities. If my wants conflicted with traditional activities (for example, when a funeral put a village under tabu), the traditional activities were preferred. This was the market situation.

The total supply of European goods was limited by the amount of native goods I wished to buy, but the supply of any one commodity was perfectly elastic, within the limits of the total supply, and affected only by changes in demand. The prices of the European goods, or the rates for converting surplus produce or time into desirable

objects, were constant for most of my stay, and although fixed arbitrarily by myself they were in accordance with native expectations. The total number of transactions taking place at any one time could be considered determined by price and supply, and the proportions of commodity A and commodity B which were taken initially could be considered as determined by the prices of the two,⁹ but changes in transaction rates and proportions of different commodities could not be due to price or supply changes. Demand was the only independently variable factor, and, since in classical economic theory, it should be fixed when price and supply are fixed, we must study extra-economic factors which produce demand changes. I propose to consider the factors of degree of previous contact with Europeans, of relative distance from the source of supply, of differences in social status, and differences on the absolute number of transactions previously recorded.

Categories of demand

Demand for the goods which I supplied was not completely specific. I observed during the month when I had insufficient supplies, when I was temporarily "out" of a single commodity for a day or so, and when I was on trips and poorly supplied with trade-goods, that natives asked for categories of goods, when their first choice was unobtainable, and seemed equally satisfied with any article in the category, though

 9. In Hicksian terms, indifference curves could be set up relating the demands for different commodities with one another, and the level of curve is given by the total supply, and the point on the curve by the relative prices of each good. Any changes must then be related to taste changes altering the form of the curve.

they would refuse to take any article of a different category. Thus if I had no beads when a native asked for beads, he would then ask for small-shells, bangles and face-paint together, and take whatever I offered first, but would refuse any other articles. Natives from distant groups often asked if I had laplap cloth, leather belts, machetes, enamel dishes. Since I almost never gave out sufficient cash at any one time to enable a man to obtain one of these articles,¹⁰ I did not stock them, but the questions indicated these goods form an analogous category. It was notable that natives who asked for such goods usually took razor blades and matches in payment for the produce they brought, and it appears as though all these European goods form one category.

From the consumer's point of view the goods within one category are competitive, or substitutes for one another (c.f. Hicks 1939:42). This substitutability is predicated solely on the market behaviour of Siane people and not on any interpretation by a Western observer that goods could be used to perform the same task. On the other hand, the supply, or absence of supply, of goods of one category has no influence on the demand for goods of other categories and people refrain from making transactions, if no goods in the desired category are available. Cash forms an anomalous commodity, for in the exchange situation described, all goods were substitutable by

 10. When I gave out large sums to carriers, etc., the men would pass near enough to trade-stores to buy goods there, but I was able to obtain some check on this buying. It was infrequent but often entailed making purchases for other members of the village. I have not included such purchases in my figures in this chapter, merely saying that I gave cash, but have used my knowledge to interpret the meaning of a demand for cash.

cash, though often goods would not be taken instead of cash. I shall treat it as a "category" and analyse its significance later. Otherwise demand for goods in any category varies independently of demand for goods in other categories.

The categories of demand group goods in the following way: -

- Category A. - Bangles, beads, small (tambu) shell, face-paint, and face-powder.
- Category B. - Newspaper, salt, twist tobacco, and sugar and tea for some returned labourers.
- Category C. - Matches, razor-blades, tinned meat, kerosene, lamp-wicks, needles, nails, small knives.
- Category D. - Soap (for which nothing except cash was substitutable).
- Category E. - Cash.

It is clear that an approximately similar grouping could be made in terms of the use of articles, or their inherent qualities. Category A goods are used on ceremonial occasions as gifts or as decoration; category B goods are luxuries, used mainly for the entertainment of visitors; category C goods are all hard goods of novel types, unrelated to any indigenous commodities. Soap replaces the pumice (as I think the stones shown to me as "sop bilong kanaka" were) with which natives used to wash before Europeans arrived,¹¹ as part of their daily lives. As far as possible natives have fitted the European goods into the categories of gima, luxury and subsistence commodities, and "others". I will use these categories in my analysis of demand statistics, and will call them only by the letters A, B, C, D, E.

 11. Such washing was not frequent, but was indulged in with great gusto whenever Siane men crossed any deep river.

Group Differences in Demand

<u>Clans</u>	<u>Total trans- actions per clan</u> (units of. \$d) .	<u>% of total transactions in each category of goods</u>				
		A (vals)	B (lux)	C (hard)	D (soap)	E (cash)
1) Antomona (Emenyo tribe)	2171 .	35	22	7	9	27
2) Feramana (Emenyo tribe)	506 .	51	25	9	7	9
3) 2 clans of Fowe tribe	25 .	38	24	24	14	-
4) Rofaifo (Komunku tribe)	798 .	25	26	10	29	10
5) Waifo (Komunku tribe)	446 .	12	30	5	18	34
6) Roanti (Komunku tribe)	207 .	23	21	7	32	18
7) 3 clans of Aranko tribe	183 .	51	20	3	18	9
8) 4 clans of Ramfau tribe	62 .	56	6	7	4	27
9) 2 clans of Raya tribe	104 .	35	15	20	22	8
10) 4 clans of Duma tribe	70 .	61	10	6	23	-
11) 6 clans of Gai tribe	22 .	79	6	1	15	-

Table 8. Transactions of anthropologist with the different clans of Siane area during ten months of 1953, and the categories of goods demanded in payment for produce and services.

Table 8 shows the total number of exchange transactions I had with each clan during the period in which I kept records, and the distribution of demand according to categories. At the top of the table is the clan outside whose village I lived, and at the bottom the most distant clan with whom I had dealings. Other clans are arranged in descending order of nearness. Quite clearly the people who lived nearest obtained most goods, and those furthest away the least. In economic terms, total demand for goods varies inversely with the cost or effort involved in walking to my house, which is what would be predicted from theory.

But there are anomalies such as the relatively small demand in nearby Feramana clan and Fowe tribe, and the relatively high demand of Rofaifo clan and Raya tribe. But if the groups are ordered in

terms of their "degree of Europeanisation"¹² previous to my arrival, these anomalies are explained. From observation of the number of European-style houses in villages, the readiness with which coffee and passion fruit were adopted, and the amount of European dress seen -- all measures independent of the number of transactions with me -- I would rank the groups in order:

- | | |
|-------------------------------------|------------------------------------|
| 1) Rofaifo clan (most Europeanised) | 6) Raya tribe |
| 2) Roanti clan | 7) Feramana clan |
| 3) Antomona clan | 8) Ramfau tribe |
| 4) Waifo clan | 9) Fowe tribe |
| 5) Aranko tribe | 10) Duma tribe |
| | 11) Gai tribe (least Europeanised) |

Raya and Rofaifo are higher in this table than they are in Table 8, while Feramana and Fowe are lower. In fact, when this order of ranking is correlated with the rank order of numbers of transactions, the correlation is found to be higher than that between proximity and number of transactions.¹³ In other words, previous Europeanisation is a greater determinant of the level of demand, than is the ease of obtaining European goods.

Not only is the total demand related to degree of Europeanisation, but so is differentiation of preferences within the total demand.¹⁴ In Table 9 the patterns of preferences of the most contacted, least

12. This could be related to such factors as position relative to the source of European influence, the personality of the luluai, the age structure of the village, and the number of returned indentured labourers, but that is beyond the scope of this study.

13. The rho for transactions and Europeanisation is .81, for transactions and proximity .70. Both are significant at the .01 level. The rho for proximity and Europeanisation is .53, and not significant, as would be predicted.

14. Differentiation is also related to proximity with me, but less markedly so than is the case with degree of Europeanisation.

<u>Groups demanding</u>	<u>% of total transactions in each category of demand</u>				
	A (vals)	B (lux)	C (hard)	D (soap)	E (cash)
4 most contacted groups	24	25	7	22	22
3 medium contacted groups	46	20	11	16	9
4 least contacted groups	58	12	9	14	7

Table 9. Categories of goods demanded by groups arranged in order of their degree of previous Europeanisation.

contacted, and intermediate groups are averaged. The patterns of the most contacted contrast with those of the least contacted groups, while the other groups are intermediate in their patterns of demand. The least contacted groups take over half of their goods as valuables, and only small quantities of other categories. The most contacted groups take less than a quarter as valuables, but exactly a quarter as luxuries. Their demand for soap and cash is higher than the demand of less contacted groups at about one-fifth, but all groups demand about one-tenth of hard goods. These two basic patterns -- an unsophisticated demand for valuables, and a sophisticated demand for goods of all types, especially luxuries -- should be carefully noted as they will recur throughout the more detailed analysis of differences given in the rest of this chapter.

Since "degree of previous Europeanisation"¹⁵ is a major factor

 15. This concept is used as a convenient description only, not as an explanation. The subsequent analysis will concern itself with such factors as elasticity of demand, saturation of demand, prestige demand, and the "learning" of demand with changed demand during my stay. All must have been elements in "previous Europeanisation". The "Income Effect" described by Hicks (1939:32) is also involved, but this analysis will attempt to explain the extra-economic factors producing the effect.

affecting the aggregate demand pattern of groups, it would be expected that exposure to a European (myself) would also affect demand patterns and make them change over time, while groups having little contact with me would not change their demand patterns. Table 10 shows how the demand pattern of the group most affected by my presence changed over time.

<u>Period</u> ¹⁶	<u>Average number of transactions each day (3d units)</u>	<u>% of total transactions in each category of demand</u>				
		A (vals)	B (lux)	C (hard)	D (soap)	E (cash)
1) Dec. 17 - Jan. 1	9	33	2	-	-	65
2) Jan. 2 - Jan. 17	11	65	7	5	10	12
3) Jan. 18 - Feb. 16	8	62	11	-	5	22
4) Feb. 17 - Mar. 13	8	61	20	3	13	3
5) Mar. 14 - May 25	7	24	32	8	10	26
6) May 26 - Oct. 6	7	23	26	10	11	30

Table 10. Patterns of demand for European goods for Antomona clan, Emenyo tribe, December 17, 1952, to October 6, 1953.

From January 2, to January 17 the pattern is almost exactly that of the least contacted groups, while after March 14 it is that of the most contacted groups. This confirms the prediction.

But there are anomalies, whose explanation is important. In period 1) a large amount of cash was demanded, although little contacted groups do not generally demand cash, but ask for valuables. The amount of soap taken is fairly constant although it would be expected to rise,

16. My records show the date when I started a page, and when I completed it, and I could not obtain a closer check when working through my figures after leaving the field. Each page of records represents about two weeks. In Table 10 the two-week periods have been added together when the overall demand pattern did not change.

as does the demand by most contacted groups. Also there is a steady but slow rise in the demand for European hard goods, the demand for which does not vary with degree of Europeanisation. Consumable luxuries reached a higher level of demand than is found in most contacted groups, before falling off somewhat.

Firstly it must be remembered that the figures in Table 9 are total figures, averaging out the distinctive features of different periods. The unexpected demand for cash in the first weeks of my stay was, in fact, general and is probably masked in the figures for least contacted groups; the same is probably true of the high demand for luxuries in a later stage of the demand by contacted groups. The explanation of the demand for soap being unaffected by my presence¹⁷ though it varies according to the amount of previous contact with Europeans must be left till later (p. 274).

The early demand for cash might be interpreted as a demand for a storable medium of exchange when it was thought that I might soon be leaving. But my observations suggest that little of the cash was used in this way, and subsequently turned into useful goods. The fact that this demand was immediately, and almost exactly, substituted for by a demand for valuables, and my observation of the use of small coins in compensation payments, suggest that cash was demanded as being a member of the category of valuables. It was only later that its use as a medium of exchange became evident in exchange transactions, for I then saw the cash I gave used to purchase large European goods

17. I am surprised the demand was not increased by my example.

from trade-stores. In other words, among contacted groups cash is taken as a member of the category of hard goods. The increase in hard goods taken by Antomona clan is thus comparable with the increase in cash shown by the most contacted groups.

In short, the patterns of demand in Antomona clan extend the patterns already described for other groups. There is generally what I shall call an "Uncontacted pattern", which is predominantly a demand for valuables, but the valuables may be either cash or objects such as beads. The final pattern I shall call "the Contacted pattern", and it involves a diversity of objects being demanded, but distinctively there is a high demand for European hard-goods or for cash to buy them with. Intermediate between these patterns is one where the demand for valuables has dropped, and the demand for hard goods not yet risen, but the demand for luxuries is abnormally high. This stage is disguised by the figures which apply to long periods; I shall call the demand pattern the "Native Luxury pattern".

Other clans passed through the same stages of demand as did Antomona clan, though more distant groups did not pass through all of them. Thus Rofaifo clan, a Europeanised group showed the cash type of Uncontacted pattern until January 1st,¹⁸ the valuables type of Uncontacted pattern till February 16th; the Native Luxury pattern till March 13th, and the Contacted pattern until October, though

 18. Detailed figures of numbers of transactions, etc., can be found in Appendix B. The present analysis is based on percentages calculated from these raw figures.

goods and not cash were demanded. In this group soap constituted 42% of the total demand in the final period. The sequence and timing of the various stages was the same as it was for Antomona clan.

Clan Waifo had fewer dealings with me and took longer to go through the same stages. Their Uncontacted demand, cash type lasted till January 30th; the valuables type until March 13th; the Native Luxury pattern till August 2nd, and the Contacted pattern till October, a demand for cash predominating.

Clan Feramana was a conservative group but had many dealings with me. They demanded cash and valuables equally in an Uncontacted stage which lasted till March 13th. A transition followed until May 26th, after which time their demand followed the Native Luxury pattern.

Ranfau tribe was both conservative and non-interacting. From December to October their demand followed the Uncontacted pattern, with a gradual transition from a predominance of cash to a predominance of valuables, and a tendency to increase demand for luxuries towards the end of the period.

The occurrence of these changes in demand patterns might be considered as due to the length of contact with myself, and hence as a learning of demand, or as due to an amount of contact with me, and hence as a satiation of previously pent-up demand. The similarity of the timing of changes in Rofaifo and Antomona clans suggests that a certain minimum of time is necessary for making changes, and that

learning is a factor. The fact that the change from the Uncontacted to the Native Luxury pattern occurred in most groups soon after they had had 175 transactions with me implies that there is some minimum level of "consumption needs" which must be met before demand is switched to a different commodity. I shall return to these two topics later.

An alternative way of describing the changes would be to consider each category of goods separately, and see how demand for that category changed in response to my arrival and the increase of supply. The most elastic demand, the first to respond to the increased supply, was the demand for valuables, either as cash or in more traditional form. This demand was not infinitely elastic but fell off after about 30/- worth (70% of 175 transactions) had been acquired. When the demand for valuables fell off, the demand for luxuries proved the next most elastic, but never exceeded 40% of total demand before it, too, levelled off at 25% of total demand. The peak demand for luxuries never occurred till at least three months after the increase in supply, or until the clan had had at least 300 transactions with me. The demand for European hard goods was even less elastic and only changed when the demand for luxuries had reached a stable level. I was not in the field long enough to see whether this demand also reached a peak or stable level, but would tentatively suggest that it seemed to stabilise at 35% of total demand in the clans I had most dealing with. Within any one clan the demand for soap showed the least changes and the lowest elasticity, although the level of demand

seemed to be determined by the level of previous Europeanisation of the particular group. To understand why these types of elasticity should appear in the aggregate demand patterns of groups, we must understand why individuals changed their demand for certain goods. To do this we must first consider the statistics describing individual patterns of demand, and their changes.

Individual differences in demand.

Within one clan, next to whose village I lived, I was able to keep records of the transactions I had with each individual. To reduce the data to manageable proportions I have grouped individuals into categories, using the native categories of social status (c.f. p. 168), and also distinguishing those individuals who have been away as indentured labourers, and had intensive contact with Europeans. Village officials have frequent contact with Government officials, but among those who have not been indentured as labourers amount of contact with Europeans varies inversely with age, the youngest boys having most contact.

Table 11 shows the categories of individuals in Antomona clan arranged in descending order of the amount of contact those individuals have had with Europeans. As was the case with groups, the most Europeanised people had the most transactions with me. It is impossible to say whether there is any causal relationship between these phenomena, or whether Europeanisation and having transactions with anthropologists are both results of certain psychological tendencies. But it can be said that once a man starts either

obtaining European goods, or being Europeanised, he then tends to do the other.

<u>Category of individuals</u>	<u>Number of indiv.</u>	<u>Transactions</u>	
		Total	Av. per Individual
1) Men returned from indenture in 1951	4	242	60.5
2) Village Officials	2	124	62.0
3) Youths (and some men) newly returned from indenture	17	559	32.9
4) Youths, not yet indentured	22	591	26.8
5) Young childless married men	13	155	12.1
6) Unimportant men with children	18	170	9.5
7) "Big men"	15	94	6.3
8) Women	54	236	4.4

Table 11. Amounts of transactions in units of 3d worth of European goods obtained by different categories of person in Antomona clan. The number of transactions per individual women was too small to make differentiation of categories of women practicable.

But the transaction rates for any particular category do not increase steadily as the contact with me increased, nor did they decrease steadily as the aggregate transaction rate did (c.f. the figures on p. 264). Table 12 summarises the changes in rates.

<u>Period</u>	<u>Number of transactions per individual per month in social category</u>							
	1	2	3	4	5	6	7	8
Dec. 17 - Jan. 17	<u>24.5</u>	<u>15.5</u>	<u>1.5</u>	<u>0.5</u>	<u>1.1</u>	<u>0.8</u>	<u>1.6</u>	<u>1.7</u>
Jan. 18 - Feb. 16	<u>6.0</u>	<u>10.5</u>	<u>2.8</u>	<u>3.3</u>	<u>2.4</u>	<u>0.4</u>	<u>0.1</u>	<u>0.8</u>
Feb. 17 - Mar. 13	<u>8.2</u>	<u>3.0</u>	<u>2.2</u>	<u>2.2</u>	<u>1.6</u>	<u>0.3</u>	<u>1.0</u>	<u>0.5</u>
Mar. 14 - May 25	<u>5.1</u>	<u>4.4</u>	<u>2.5</u>	<u>3.1</u>	<u>1.4</u>	<u>1.1</u>	<u>1.1</u>	<u>0.2</u>
May 26 - Aug. 2	<u>1.6</u>	<u>4.5</u>	<u>3.6</u>	<u>4.0</u>	<u>0.8</u>	<u>0.6</u>	<u>0.1</u>	<u>0.1</u>
Aug. 3 - Oct. 6	<u>2.9</u>	<u>6.5</u>	<u>6.4</u>	<u>2.5</u>	<u>0.8</u>	<u>1.9</u>	<u>0.3</u>	<u>0.4</u>

Table 12. Numbers of transactions per individual per month in Antomona clan, by social categories. The categories are those used in Table 11, and the same numbers are used to designate them.

The highly Europeanised categories (1 & 2) have markedly higher rates in the first month than do the less Europeanised categories (4-8), but all the latter have such low rates a comparison between them is meaningless. During the year there is an overall drop in the demand of categories 1 and 2, a marked rise in the demand of categories 3 and 4, and little change in the demand of categories 5 to 8. It is the averaging of these conflicting tendencies which produces the steady decline of aggregate demand.

But for no social category does the demand rate increase or decrease uniformly. Instead the rates show peaks in some months, which are followed by dips, and later by other peaks.¹⁹ These peaks are underlined in Table 12. They could be interpreted as meaning that the goods which were obtained at that time by the relevant category of person, appeared more than usually attractive, and gave an added incentive to provide me with produce or services. The peaks for different categories occur at various times, so that it is unlikely that any outside event, such as the occurrence of ceremonies or planting, caused the peaks, since such events would have made the peaks of many groups coincide.

We can isolate the "package" (c.f. Riesman & Roseborough 1955) of goods which provided the incentive to increasing the transaction

 19. That these peaks and dips are not a result of my reducing my demand for goods and services in different months is shown by the lack of synchronisation of the peaks of different categories.

rate by analysing the patterns of demand of the various categories during their peak periods.²⁰ The peaks for the long-returned labourers (category 1) coincide with their showing the cash type of Uncontacted demand, the Native Luxury pattern, and the Contacted pattern. During the "dip" periods they show patterns intermediate to the two patterns of demand on either side. The newly-returned labourers (category 3) have peaks which coincide with a valuables type of Uncontacted demand, and with a Contacted pattern; the youths (category 4) have peaks coinciding with the cash type of Uncontacted demand pattern, and with the Native Luxury pattern; the young married men (category 5) show the cash and then the valuables type of Uncontacted pattern, while the unimportant married men (category 6) show these two patterns in the reverse order, and then the Native Luxury pattern; the "big men" show the cash type of uncontacted pattern and the Native Luxury pattern; the women only show an uncontacted pattern in which both cash and valuables are demanded. Since at other times demand patterns were intermediate and transaction rates were lower, we could say, using the loose descriptive terminology of the previous section,²¹ that the patterns at times of peak demand constitute the "consumption needs", which had previously been unsatisfied. As the needs were satisfied, demand was saturated, and did not increase until new "needs" became evident. The package

 20. The figures on which this description is based are given in Appendix C p. 338.

21. I propose to refine this terminology in later sections.

satisfying each "need" is greatly different from the package satisfying other "needs" and demand changes by discrete jumps rather than steadily; this effect is masked in the figures for aggregate demand or the demand of whole categories of person by the fact that individuals change at different times.

We can also analyse how specific changes took place for different categories of individuals. Thus the change from an Uncontacted pattern to a Native Luxury pattern was made by the long-returned labourers after one month. The newly-returned labourers and youths changed after two months; the "big men" and the unimportant men with children changed after five months; the men without children and the women did not change at all. The change to a Contacted pattern of demand was made after three months by the long-returned labourers, after five months by the newly-returned labourers,²² but not at all by other categories although the youths were beginning to change away from a Native Luxury pattern. In all cases the new demand pattern was first adopted by the most Europeanised category, and later adopted by other categories, particularly those which were younger or likely to be influenced by the long-returned labourers. This is consonant with the idea that the new demand patterns were "learned".

This idea does not explain the anomalous demand patterns of the village officials, which are shown in Table 13. In the first two months the officials' pattern resembled the valuables type of

 22. This pattern did not coincide with a peak demand. I would interpret this as meaning that newly-returned labourers did not see any novel incentive in the obtaining of twist tobacco, paper, etc.

Uncontacted pattern, except that they demanded more soap. While

<u>Period of demand</u>	<u>% of transactions in each category</u>				
	A (vals)	B (lux)	C (hard)	D (Soap)	E (cash)
Dec. 17 - Feb. 16	77	2	-	13	8
Feb. 17 - Aug. 2	44	7	4	44	2
Aug. 3 - Oct. 6	4	15	15	66	-

Table 13. Patterns of demand for European goods by village officials of Antomona clan, Emenyo tribe.

other social categories took more luxuries in the next six months, the village officials did not, but took more soap. In the last two months when other Europeanised categories took hard goods or cash, the officials did too, but they increased their soap consumption more. Their demand patterns might be interpreted as changing from an Uncontacted pattern to a Contacted pattern, but at all times the demand patterns of officials are abnormal in including a high amount of soap. But officials must always appear washed and with clean clothes when they meet Government officers, so that soap is for them a necessity for remaining in office. Their example shows that demand patterns can be influenced by the social position of the individual.

This "official" demand for soap also explains the anomalies in the group demands for soap (p. 265). In Europeanised groups the officials take their positions more seriously than do officials in less contacted groups, and they go to Goroka more frequently. They need more soap, and since my dealings with Europeanised groups were often through village officials, this need is reflected in my figures.

The social position of an individual, and the behaviour expected of him may also explain, for example, the low demand by officials for luxuries. It may also have determined whether men took cash or valuables in the Uncontacted pattern of demand. Thus the "big men", the youths, and the long-returned labourers took cash, while the officials, the newly-returned labourers, and the unimportant men, young or old, all took valuables. Most categories were interested in making direct payments, or in display and so took valuables -- even the Europeanised group of newly-returned labourers who knew the value of money, but who presumably had stocks of it to pay for luxuries. The long-returned labourers knew the value of money, but had long been out of contact with a source of supply, so took money, and were copied by the youths. The "big men" could not take small valuables from me without lowering their prestige. This was shown, for example, when a "big man", with whom I had not spoken for some weeks, came up to me as I sat typing and said "I am sad that you have ignored me. I will kill this chicken and my bowels will cease to be sore". He wrung the neck of a chicken he was carrying and threw it down on my table. Without a word I got up, collected four sticks of tobacco and some paper and threw them down on the table too, saying "I am your friend. I give you this tobacco freely". We shook hands.²³ This is an extreme example of how "big men" avoided lowering their

 23. Later he privately told me he wanted beads, not tobacco, and I changed things for him as we were all sitting talking.

prestige. Another method was to take scarce and important valuables, as I think cash was at the beginning of my stay.

Summary.

The types of European goods which I supplied in the Siane area were treated by the natives as belonging to certain distinct categories of valuables, luxuries, European hard-goods and soap, while cash was treated in an anomalous way. The demand for these categories of goods falls into indentifiable patterns, which, for individuals, seem to be discrete from each other and which provide packages of goods which serve as incentives to increased purchasing. As a result of an increase in the supply of goods the patterns of demand change in a sequence which is the same for individual and for aggregate demand. The patterns are designated Uncontacted when valuables are demanded, Native Luxury when luxuries are demanded, and Contacted when hard-goods are taken. The changes can be considered as due to the different elasticities of valuables, luxuries and hard-goods, as due to a learning of new "consumption needs", and as due to the saturation of demand for a particular "package". The pattern of demand of an individual is also affected by the role that individual plays in society, and the effect is relatively constant despite changes in other categories of goods which are demanded.

Chapter 8

Economic Values

"Value, as used in modern economic writings, means always value in exchange. It is inevitably relative, since the value of one thing must always be expressed in terms of another; there can be no such thing as 'intrinsic' value in the modern economic sense of the term"
(Benham 1938:15)

In traditional economic theory "value" is a concept derived from observation of exchange situations, and is operationally defined as the amount of a commodity, X, that is given in exchange for a commodity, Y. By defining the concept in terms of how it is measured, economics can omit reference to the "common-sense" implications of the term, while also taking advantage of them. These implications are that individuals have positive feelings towards the commodity, and that these feelings provide an incentive to exchange. Other concepts, similarly derived from the observation of exchanges though not directly measurable, have similar implications about the feelings of individuals. "Utility", "satisfaction" and "wants" are such concepts. They are related with one another ex definitione, satisfaction being the state when wants are filled, and utility the potential of a commodity for giving satisfaction or for filling wants. Though "value" is not defined in terms of these concepts, utility economics proves that it tends to equal the utility of the last unit of a good that is obtained, or the marginal utility. Indifference curve analysis attempts to avoid using the

concept of utility, since utility is not measurable, and substitutes a concept of "preferences" which are.¹ In its analyses utility economics deals solely with the quantified measures of the concepts, taking for granted the common-sense validity of the concepts, and leaving the study of this validity to other disciplines.

But the common-sense implications of the concepts are not relegated to the position of axioms from which all the theory can be seen as flowing. Instead we often find economists adducing new common-sense implications of their concepts to explain phenomena not explicable in terms of pure theory. Thus "changes of taste" explain changes of demand, or it is argued that "demand for luxuries is elastic, while demand for necessities is inelastic" (Benham 1938:74). This chapter attempts to show how, in Siane, the "common-sense implications" of the concept "value" have certain regularities. These regularities enable the concept to be used, not only as a basis for theory construction, but also for the interpretation of empirical economic data.

Among early economists, Marshall did try to trace some of the common-sense implications of the concept of "wants", and tried to establish regularities by classifying them. He talked of "man's wants in the earliest stages of his development" (his biological wants), of "wants adjusted to activities" which form the basis of man's "standard of life", and of wants associated with a "standard

 1. But it has been shown (e.g. by Norris 1941, Chapter 2) that the same assumptions about utility are implicit in indifference curve analysis, even if they are not explicit.

of comfort", which he stigmatises as artificial and gross.²
(Marshall 1925:88 et seq).

Anthropologists have frequently tried to classify "wants", differentiating them from "abstract needs" (e.g. Nadel 1942:337) but considering them as "culturally-accepted needs" (Nadel 1942:334). Malinowski (1944) made a distinction between the physically-determined wants, which he calls "primary needs", and the wants which arise during the satisfaction of primary needs, and which he calls "derived needs". Derived needs range from such things as needles and thread which are wanted once clothing is worn, to the symbol system of a society, which, when once adopted to facilitate the production of food, then becomes necessary for survival. Such a classification does not help us to interpret economic data.

Nadel distinguishes three types of "needs" among the Nupe (1942:Chapter XX). Firstly he distinguishes "basic needs", which correspond roughly with Malinowski's primary needs, but which include the need for artifacts which directly produce goods to satisfy primary needs. Secondly there are needs which constitute

"more or less fixed demands on resources, which are involved in institutions and customs, and which are accepted with little variation, irrespective of status or wealth throughout the society".

Thirdly he differentiates commodities which are wanted by "the élite", and, are also desired by "the common man", because the élite desires them, even though they are not necessary to the maintenance of life.

2. For a fuller analysis of the assumptions about individual behaviour made by economic theorists, and a discussion of Marshall's treatment of wants see Parsons (1937:129-300). The present analysis is largely based on that made by Parsons.

Nadel's second category corresponds closely with Marshall's "wants adjusted to activities", as is seen, for example, when Nadel says "cultural requirements include the clothing expected of a family head" (p. 354). His third category corresponds with Marshall's category of "wants associated with a standard of comfort", but Nadel also says that "expenditure of wealth in any form also represents expenditure for the sake of status and prestige at the same time" (p. 358). The value for an economic analysis, of making such classifications of "wants" appears in Nadel's comment about the "fixed demands on resources" made by "cultural requirements", for if demands are fixed, the behaviour of prices and supply will not correspond with that predicted by formal economic theory.

Such treatments of "wants" can be related to the concept of "value", since value "is the preference assigned to an object in virtue of a relationship between means and ends" (Firth 1951:42), and the satisfaction of wants constitutes an end. The measuring of economic value in western society is possible because, whatever the desired end, there is usually some point where a sum of money is preferred to any specific object as a means of attaining that end. Sums of money can be compared on a basis of size alone, so that values (or incentives to exchange) "can be arranged in an order of intensity" (Robbins 1935:), and vary only in size also. But in a non-monetary society there is no such unitary standard of value³ in terms of which comparative worth is expressed. Early

3. I have previously shown how time could be considered a standard in terms of which activities are valued, but it is clearly not a standard for the evaluation of goods.

writers stressed this as a failure (because of historical accident or primitive ignorance) to develop a unitary standard such as money, implying that societies ought to have such a standard. Many other writers accept that in primitive societies there is an implicit unitary standard in such statements as "wants placed higher or lower on a scale of cultural values" (Nadel 1942:339). On the other hand the absence of such a unitary standard (even an implicit one) is attested by the impossibility of a Siamese man expressing by an exchange a preference, for example, for shells as against houses, or nuts. Firth (1939:377) points to the same phenomenon but attempts to construct a unitary series of exchange values notwithstanding.

But in Siamese preferences are assigned to objects such as shells, which may be compared with the preferences assigned to feathers, and which may be given a quantitative form. The preference for nuts may be compared quantitatively with the preference for oil, and the preference for sweet-potatoes may be compared quantitatively⁴ with the preference for sugar-cane. These economic values are given to the objects by virtue of the objects' relationship to ends, and it is clear that a greater value is given to an object which has a closer relationship with the attainment of any particular end. More particularly, objects are only compared when they are

 4. I did not do this in the field, except in the case of valuables (c.f. p. 145-6) and then only approximately. My point is that such a preference scale could be constructed, though it would involve much work.

alternative means to the same end. To classify the scales of value in Siane society we would need to classify the ends of that society. This would involve interpreting the motives of Siane men and is impracticable. But we can classify the uses made of articles and classify what is obtained by their use, leaving the question of motive an open one. The relevance of the article to that use then constitutes the standard for assigning a preference to, or valuing, that particular object.⁴

Standards of value in Siane.

In Chapter 3 three nexuses of activity were described as occurring in Siane, each nexus of activity involving relationships with specific categories of person, and usually being concerned with the production, exchange or consumption of specific commodities. Commodities used in the same nexus of activities could be substituted for by other commodities used in the same nexus, but only rarely were commodities used in different nexuses substituted or exchanged for each other. Thus commodities used in one nexus can be arranged along one scale of preference, and the commodities used in each of the other nexuses along other scales. The question to ask then becomes "What use is made of the objects in each nexus of activity, and what are the ends, in terms of which they are valued, or which provide the standards for evaluating those commodities?"

 4. I am indebted to Dr. W. E. H. Stanner for the suggestion that the present analysis could be couched in terms of "standards for evaluation". Any errors in the analysis and in the theoretical justification for making it are my own.

At first sight it would appear that commodities are used in the subsistence nexus of activities to keep people alive. But, as has been shown by the attempts to classify needs cited previously, it is difficult to distinguish what is used for the maintenance of life from what is used to produce tools or to maintain the productive organisation of society. Malinowski classifies the two latter uses of objects together as "derived need" satisfaction; Nadel classifies tools with the objects they produce, but groups the use of goods to maintain existing institutions of production with their use in maintaining other social activities.

The same difficulties of distinguishing are present in Siane. Not only are subsistence commodities mutually substitutable, but the same term namo orufero ne -- "it is my job" can be used to describe any subsistence activity, from a man's garden work to the tasks a woman does around the house, from the preparation of new axe-handles to the making of a prescriptive speech initiating garden work by a lineage head. But the expression "it is my job" includes a sense of obligation, and we might conclude that a general feature of the goods used in subsistence activities is that they are used in the fulfillment of obligations.

This is indeed the case in the situation where subsistence commodities are exchanged, for in native terminology this is phrased as "help" (umaiye), and clan members are obligated to help one another. This obligation applies automatically to all

subsistence goods over which an individual has merafo ownership, for they must be given as help to a fellow-clansman. Non-subsistence goods, over which the individual has amfonka ownership, he may, if he desires to, retain for his own use, in other activities. Most obvious is the use of food as a means of fulfilling, or at least acknowledging, one's obligations (c.f. p. 90). When one man has made an axe-handle for another, the receiver of the axe-handle will then give food to the workman, and after eating, both men will say "sene muruna yowo ne" -- "Our bowels and livers are even" -- to signify that they are friends and no balance of indebtedness exists.

Food in fact is the commodity most often substituted for labour, services, or other commodities within the subsistence nexus of activities. It is, in economic terms, the most liquid commodity.⁵ But it is used, not merely to repay specific obligations, but also to indicate common membership in a group. Namo wenena weneneta faivya umaiye -- "our own people we help freely with food" -- say Siane men, but they also give food to strangers, not from any sense of obligation, but in order to be able to call them "our people". In other words subsistence commodities are used to preserve the individual's own membership in a productive group,

5. I have not used the concept "liquidity" previously, since it is a concept which permits one to talk of variation in terms of only one dimension -- more or less liquid. The concept is applicable where there is a unitary scale of values and the number of exchanges a commodity is involved in is important. This is the case in a monetary economy, and within any one Siane nexus of activity, but it is meaningless to talk of food or nuts being used in "more" exchange situations than are shells. They are used in different situations altogether.

and to preserve and enlarge the productive group itself.

But it is not merely that commodities are used by all members of a group, that makes them valued as signs of membership of the group. Everyone eats salt and pork in Siane, but salt is a luxury and pork is a gima commodity. On the other hand small birds and rats are killed and eaten by boys, and are considered subsistence commodities, while no adult male will touch them. A man's apron cannot be worn by a woman (except in certain ceremonies), nor can a woman's skirt be worn by a man, yet skirts and aprons are subsistence commodities by virtue of their means of production and their exchange as "help".

The first exception suggests that it is the dispensability of salt and pork that turns them into luxuries or valuables, while it is the culturally-accepted indispensability of other articles of food, and of clothing that makes them subsistence commodities. The second exception suggests that different objects can be considered indispensable for each differentiated social status, and that commodities can be subsistence commodities when they are used to show, for example, that boys are in the particular social status "boy", as well as to show that they are members of a group. It is from this use that soap can be considered a subsistence commodity for village officials -- if they did not use soap they would be unable to maintain themselves in their existing status.

This use of maintaining the individual in his existing

accepted social position is the most general use, under which we can subsume the other uses of subsistence goods already discussed. To maintain his position in society the individual must not only keep himself alive, he must fulfill his obligations as a group member, and also perform those diacritical (Nadel 1951:67) activities which mark him out as an occupant of that status.⁶ It is the extent to which commodities enable him to carry out these tasks that forms the basis of evaluation by him.

As outside observers we may also see certain ends which these commodities help the total society to attain. These ends are what has also been termed the "latent function" of the activities in which the commodities are used. If commodities are used to maintain individuals in existing social positions, they also maintain the organisation of the whole society, the relationships within it, the consumption level it enjoys, and the stock of productive goods in the society. The use of subsistence commodities appears, then, to the outside observer as the way of maintaining what is closely analogous to what Marshall calls "the standard of life". The subsistence commodities which are consumed by the individual constitutes the "standard of life" -- what is culturally-accepted as indispensable if one is to remain in one's existing social position.

The most obvious use for valuables is for them to be exchanged for women. But this is not merely a purchase of a chattel; each

 6. It is for this reason that the payment of tax in Africa has the "urgency and inevitability" of a subsistence transaction, for tax payment is the most obvious way of expressing one's status as citizen.

payment is for certain defined rights over the woman's sexuality, her economic productiveness and her children.⁷ A woman cannot be "bought" outright, for ceremonies ensure that her soul at least remains with her brothers. The woman's brother also makes presentations to obtain the right to good treatment and care for his sister, and also, as in the presents of pork at the Pig Feast, to deny the husband's claims to outright possession of the woman. The valuables which are given to sisters' sons are also claims to the child by the mother's brother, and are only refuted by payments which the father makes. We could thus generalise and say that valuables are used to obtain rights, and that the gimaiye ritual serves to publicise those rights.

But this generalisation does not cover the payments made at peace-making ceremonies (pp. 40,147), where valuables are given by the side which has killed or insulted more often to recompense the side which is on balance the loser. Any killing or insult obliges the dead person's kin or the person insulted to seek revenge, but if a payment is received the obligation is removed. The removal of obligations on the avenger can be regarded as privileges gained by the person expecting that vengeance will be worked on him, but these privileges are not as specific as the rights obtained by bride-price payments.

 7. In these pages I describe payments as being made by a man or by an individual. This must be understood as "a man, or a group when it acts corporately as an individual". Later when I wish to distinguish between private and corporate action I use more specific terms.

Less specific still are the obligations set up by the presenting of pork to non-relatives at the Pig Feast,⁸ by the presenting of abnormally large bride-prices, or by the distribution of valuables by returned labourers. All of these presentations are described with great pride by the donors, but the pride is not based on the expectation of an equal return,⁹ or of increased rights over a bride. Instead, the hope is expressed that the recipients will not be able to return an equivalent value. What is returned immediately to the donors is a compliment, as the recipients jump up and down and shout "mika-mika-eee" with a full-throated roar, to mean that the donors' land must be exceptionally fertile to produce such valuables. Compliments acknowledge an obligation, and constitute, (like food and subsistence goods), the least specific but most liquid form of obligation. They are the "small change" of obligation.

In short, valuables are presented in exchange for obligations which can be extremely diffuse in the form of compliments, somewhat more specific as obligations to accept insults or killings without demanding vengeance, or quite definite as obligations to provide

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8. Presents of pork to men who purchase emonawe relationship are not considered here. They may be treated either as repayment of valuables in kind, or as asserting contested rights over non-resident "relatives".
 9. To be sure, the person who receives the present feels obligated to return an equivalent present. Much has been written, following Mauss (1924), about the compulsions underlying this obligation. The present analysis sees the initial present, not as an outright donation but as an exchange of the valuable for some intangible good, which remains in the hands of the original owner until a return present is made. I have described possession of this good in personal terms as the satisfaction of "being one-up" (c.f. Barnett 1938). The desire of the recipient of the valuable to avoid being "one-down" is seen as the sanction compelling him to make a return presentation.

children for a group paying bride-price. The common factor in these obligations is that they all change the existing relationship between donor and recipient, and put the donor in a superior or magister status and the recipient in an inferior or minister status (c.f. Mauss 1924:72). Unless the recipient returns the presentation, he must "become a client and subservient". The donor's superiority may be phrased in terms of being able to compel the other to perform certain duties, or it may be phrased in terms of being "more praiseworthy". The recipient's inferiority may be expressed in a ceremony, as when a new bride washes her mother-in-law, or by a "holier-than-thou" attitude by others until the present has been reciprocated. In general the donor has received some power, which he did not possess before, to control the actions of others. In its most general form this power is prestige; when it is given informally by inferiors it is what Homans (1950) calls "social ranking"; when it is formally recognised by society and vested in specific statuses it is authority. But in the latter case it constitutes a fixed relationship between individuals, and increments to it are not obtainable by purchase. The fixed relationships are maintained by the use of subsistence goods -- men wear male clothing and validate their control over the actions of women. It is only non-institutionalised power which is given in exchange for valuables, or the increments to power which come when an individual changes his status (as in an initiation when a boy becomes a man). To the extent that there is some free-floating



power within groups and some possibility of individuals' altering their social ranking, this power is also obtained through the use of valuables in financing the payments of others.

The obtaining of new or free-floating power may thus be seen as the end of using valuables, and the value of a particular valuable rests in its relevance to the obtaining of power or prestige. It would theoretically be possible to work out a scale whereby the value of each valuable would be expressed as so many quanta of power, or alternatively the value of any quantity of power would be expressed as so many gold-lip shells.

The outside observer can see certain functions which these transactions involving power and valuables perform for the total society. There is only a limited stock of free-floating power -- only a certain amount of women whose reproductive powers can be controlled, and only a certain amount of admiration that people can concede before feeling themselves slighted. In Siane the sovereign clans do not have a fixed allotment of power each, yet their powers must be regulated, and they must interact if the society is to reproduce itself. The system of gima activities acts to distribute this free-floating power,¹⁰ and to prevent its accumulation in the hands of one individual or group. To obtain

10. On page 159 this argument was used to show that the need for a balance of power ensured an even distribution of valuables. Neither argument is intended as a "final cause" explanation, but the reversibility of the argument shows the interdependence of valuables and power.

a temporary increase in power, a man must give out valuables. Further increase in his power becomes impossible until he has surrendered some power to other groups, and has replenished his stock of valuables.

When the stock of valuables and of free-floating power are both fixed, then it would be expected that a fixed exchange rate would exist. Economic theory would suggest that if the stock of power increased -- for example, by military conquest increasing the power of certain groups and enlarging the size of the society -- then the value of gima goods would increase. Alternatively if the stock of valuables increased without their being any social change, then the exchange value of goods relative to power would decrease, and there would be more competition for power. This has been the case so far with the inflation in Siane. But if stocks of both increased comparably, an equilibrium could be maintained, and the situation when an increase in social stratification is accompanied by an increase in wealth symbols could be a stable one. This conclusion has been reached by many authors (e.g. Sahlins 1954) from a consideration of empirical data; it is a conclusion that can be derived from economic theory if goods are considered as valued because of their use in obtaining power. It suggests that the increase in the power of "big-men" in Siane in recent times may be stable if accompanied by a formation of larger social groupings.

Luxury goods are primarily used for entertaining. They are

given as kevora neta, or "little somethings", which marks them out from the familiar "nothing somethings" of subsistence food, and also from the "somethings" of the obligation-forming gima activities. The language implies that the guest is receiving something more than normal subsistence, but is not being derogated in any way. He need only return the gift by way of friendship, but is obtaining sensual gratification. The donor, by his use of luxuries obtains a friend and the possibility of sensual gratification in the future.

The obtaining of friendship is more evident in the giving of luxuries to children. The greatest treat for children is to be given salt to eat, and I found that when I allowed children to lick the spoon with which I had measured salt for purchases, I received in return, not only the sight of the childrens' obvious pleasure, but also the friendship of their mothers. Children are frequently given tidbits to eat in Siane, and are washed in oil. Such gifts involve no expectation of a material return, but a return of love and dependency is given.

Sensual gratification is more evident as an end in the direct consumption of cigarettes or nuts by an individual "because he likes them". Such gratification must be distinguished from the gratification obtained from consuming subsistence commodities. If a man has not eaten sweet-potatoes he says he has eaten nothing; although he may have chewed sugar-cane all the day, but a man may

go without luxuries and still feel adequately fed.¹¹ No man dare leave the men's house without a net-bag apron, but whether he wears a red and white handkerchief around his neck or not is entirely a matter of personal preference. He can dispense with luxuries and still perform his role in society, while he cannot dispense with subsistence goods. He is permitted to use luxury goods, but is not compelled to.¹²

But even in obtaining sensual gratification, over and above that contained in the "standard of life" of the society, the obtaining of friendship is involved. Most Siane men carry half-smoked cigarettes behind their ear, and when they come to a place with a fire as they walk along the road, they stop to light the cigarette, take a few deep puffs, talk for a few moments, and then put their cigarette away again when it goes out.¹³ When anyone passes who does not have a cigarette, he merely reaches up and takes the cigarette of someone else from behind his ear, smokes it for a few puffs and returns it. Stopping to talk and borrowing cigarettes are the commonest ways of striking up casual acquaintanceships.

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11. Siane men will complain if they have no tobacco, but will tolerate this condition. Their complaints indicate that tobacco is almost a subsistence commodity. The question of how goods can change from one category of evaluation standard to another will be discussed in the next chapter.
 12. I am indebted to Dr. D. L. Oliver for pointing out that goods may also be categorised in terms of the sanctions compelling the individual to make use of them. I do not stress this aspect but would point out that sanctions would be expected to come into operation whenever the "social function" of activities was not being performed.
 13. This is a functional characteristic of native cigarettes. If they did not go out, the strongest stomach would be turned by more than a few puffs.

But to say that luxuries are used to obtain friendship or sensual gratification is to oversimplify. Luxuries are used to entertain affines, when an attempt is made to impress the visitors by lavishness and to put them under an obligation. I observed that the voluntary provision of nuts for use in village entertaining, or the frequent use of oil to anoint children, is mainly done by individuals who, although not "big men" are wealthy in luxuries.^{13a} I interpreted this as an attempt to gain prestige by an ostentatious display of luxuries, even though prestige is usually obtained through the contribution of valuables to payments. That luxuries are not normally used to obtain prestige is indicated by the lack of any strict accounting for their use, such as we would expect if power were at stake. It is the atypical native who uses luxury goods in this way, but he is permitted to do so if he wishes, even though there is no expectation that he will. If he desires personal gratification over and above what his social status provides, he is permitted to use his luxury goods for that end, and no one will stop him, though he is being deviant.

Or again, young men working for Europeans outside their village use luxuries to entertain their relatives, and this is considered as an obligation incumbent on them in their status of clan member working outside the village. Here luxury goods are used to obtain the benefits of clan membership even though the young men have, on a personal whim, decided to work outside the village. If they did

 13a. "Big men" do provide large quantities also, but their incentives have been described previously (p. 135).

not wish to obtain the advantages of clan membership as well as their food and lodging with their employer, they could refuse to give luxuries and sever connections with their relatives.

In fact almost every possible kind of use can be found being made of luxury goods, and all these uses are permitted socially.¹⁴ Luxury goods in their use seem to fill the "random wants" of the utilitarians. The choice of which end to use goods for is a matter of personal choice by each individual, and it is only statistically normal for the goods to be used to obtain friendship or sensual gratification. But whatever gratification is obtained is over and above the gratification provided by the institutionalised roles that individuals fill in society, and over and above what can be obtained through the regular means of obtaining power or prestige. Luxury goods provide the individual with a chance to behave according to whim, instead of according to social dictates.

The provision of such permitted but not socially required gratification also serves a function for the society at large, over and above keeping people satisfied with their social position by giving them diversion. By chance aberrant individuals will think of new uses for old goods, or will produce new commodities. If they are permitted to use new goods, or use old goods in new

 14. The fact that commodities may come to have different uses is of theoretical importance as will be shown in Chapter 9. To anticipate the analysis there I show how goods valued as power symbols become luxuries as they become common. When they become common still they become incorporated in the standard of life, and are felt to be "essentials". This, I maintain, is a normal sequence in raising a "standard of life".

ways, as "luxuries" the innovations stand a chance of being accepted. Similarly if individuals are permitted to maintain friendship ties as a personal luxury, these ties will cross-cut the clan relationships of hostility, and will enable wives to be obtained and lodging to be sought if the hostility becomes too fierce. In short the uses of luxury goods provide the society with an insurance against too great a rigidity of its traditions or of its clan organisation.¹⁵

In summary, the three nexuses of economic activity in Siane are separable not only in the relationships in connection with which the activities take place, but also in that goods are valued in terms of different standards in each nexus. In the subsistence nexus they are valued for their relevance in maintaining the individual in his existing social role, in the gima nexus they are valued for the free-floating power which they enable him to obtain, and in the luxury nexus they are valued for their use in obtaining whatever gratification the individual desires, and which he does not obtain through the use of subsistence or valuable goods.

The nexuses of activity have "latent functions" for society at large. The subsistence nexus maintains the existing standard of life, the gima nexus balances the power structure of the society, the luxury nexus provides society with insurance and a safety valve.

 15. Eisenstadt (1956:96) makes a similar analysis of the function of friendship relationships, though not in an economic context.

New goods.

The European goods which I brought into Siane were, naturally enough, evaluated using the same standards. I have already described how soap was evaluated by village officials in terms of how it enabled them to fulfill their roles in relationship with Government officials. For them it was a subsistence commodity, and since the demand for soap was mainly the demand of village officials, I shall treat the demand for soap as an example of the demand for subsistence goods.

The category of "Valuables" -- bangles, beads, tambu shell, face-paint and powder -- does not exactly correspond with the category of neta described in Chapters 3 and 5. But in their use these commodities were used to obtain rights over people on a smaller scale. Boys took bangles or face-paint and used them to impress girls and to persuade the girls to do what they wanted; men took beads to pacify turbulent wives, and to obtain permission to make nocturnal visits to them; men took beads to wear and to obtain prestige within the village. Thus, although neta are used principally in gima activities to obtain power over non-members of the clan, and the small valuables I brought in were used to obtain power over fellow-clansmen, or in awoiro activities, I feel justified in saying that "Valuables" were valued for the power they provided, and in treating the demand for them as a demand for valuables.

"Native Luxuries" correspond exactly with indigenous luxuries

and are valued for the private gratification they provide. One exception must be noted, that stems, no doubt, from the use of tobacco in entertaining and the advantage of keeping a stock of goods that can be used for this purpose. Especially among returned labourers sticks of tobacco are sometimes kept as a medium of exchange, and as a store of wealth which is more liquid than cash, since it can be converted into entertainment at any time.

But matches, razor-blades, kerosene, lamp-wicks, knives, needles and nails have no counterpart in indigenous society. Their common novelty provides no basis for evaluating them, especially since demand rose for them as novelty wore off. They are, however, all used either in making a capital investment, or in maintaining the usefulness of a capital investment. Nails help build European-style houses, needles sew European cloth, small knives do fine work for which axes are too clumsy, wicks and kerosene imply that a lamp has been bought and serve to keep the lamp working and razor-blades imply an investment in a razor.¹⁶ Matches, although consumed immediately, show a greater usefulness than blazing brands, when lamps are to be lit, when they are indispensable.

These capital investments -- European-style houses, cloth, lamps, razors and knives -- are not capital investments/^{made}during the

 16. Often the investment has indeed been made, but in many cases natives use razor-blades without a razor, holding the blade tensely between the fingers and painfully scraping.

course of maintaining the existing standard of life, but are novel capital investments. These investments will produce goods and services over and above what is valued for subsistence, and these goods and services are presumably the end in making the investment. But the goods taken from me would appear to be valued according to their relevance to making or maintaining novel forms of capital investment. Although they do not themselves constitute the investment, I propose to use the figures of demand for them as providing an index of the demand for the capital goods themselves.

But the use of "hard-goods" also brings a certain amount of prestige. Little boys ran errands for me, and then asked for matches, rather than a tidbit such as salt. They would then light the matches, one by one, in front of an admiring circle of other small boys. Boys with kerosene lamps would lead groups of age-mates on awoiro visits when there was no moon. The luluai who used most nails in building a European-style house received the most commendation from missionaries and Patrol Officers on the state of his house and village. The power to influence the actions of others, which is provided by the use of European hard-goods, is almost formalised into the authority of a status. Leadership in village affairs now almost demands that a luluai have a European-style house; less formally, leadership in youths' peer-groups, which provides training for future "big men" tends to demand the possession of a lamp; even among young boys leadership devolves on

the boy who dares to ask for matches. As soon as the status demands of the luluai's position do include a European-style house, nails will be valued as subsistence commodities. This process, as I infer it, involves two steps. Firstly the goods themselves become symbolic of prestige attaching to the individual, but then the prestige attaching to the individual is seen as attaching to his office and the goods then become symbolic of the office.

In summary, the same standards of evaluation present in the indigenous economy are used to evaluate new commodities, but in addition a fourth standard is used. This standard is concerned with the relevance of the commodity for making capital investments of novel type, producing novel goods and services. Cash, and to some extent tobacco, offer a fifth measuring rod -- a means of comparing the different value standards with each other, or a unitary standard of evaluation.

The nature of commodities.

If commodities are evaluated in terms of different standards of value, it might well be asked why any particular commodity is evaluated by one standard rather than another. If we study the intrinsic nature of the goods valued by each standard in Siane we find that there are some regularities which give a general answer to the question.

Subsistence goods tend to be the consumables of food, and the durable consumer's capital goods such as clothes, shelter and tools. These are all directly related to the physical means of survival.

But the goods which are used to maintain defined statuses are usually of the same nature and differ only in style. Thus men and women both eat food, wear clothes, live in houses, and use tools but the differences in/food, clothing, houses and tools are what distinguishes their statuses. I have already commented on how a man without an axe is "a man like a woman". The differentiated status of village official is marked by his wearing different clothing, and possibly having a different style house. The maintenance of the productive group is also performed through the use of consumables, or through the use of such symbols as the men's house which is a form of consumer's capital. A. I. Richards (1932) has dealt more fully with the way in which food is used both practically and symbolically to maintain the cohesion of the group and the continuance of the way of life among the Southern Bantu; Radcliffe-Brown (1939 & 1922) has made the same point in terms of the "social value" of food. I can add nothing to their statements except to say that clothing and housing may have the same symbolic use of maintaining the cohesion of groups. A Siame man will nowadays differentiate himself from a Gahuku man not only by saying that a Gahuku eats taro, but by stressing the differences in clothing styles, and the fact that a Gahuku lives in a house built with only two central posts.

Commodities which serve as tokens of power are only used to obtain power when their owner destroys any possible utility or productivity they might have for him. In general though, he does

not have to destroy anything, for the commodities are non-utilitarian. This lack of productivity might be considered an advantage in choosing objects to be tokens of power. The commodities are also difficult to produce. There is a relatively small stock of them, which increases slowly. They are relatively indestructible, storable and transferable. They have no value unless they are put to work, and someone can be found who will accept them in return for allowing his behaviour to be influenced. Prestige likewise does not occur in a vacuum, but is only effective when someone allows his behaviour to be influenced by it. This similarity of nature between prestige and valuables underlies the fact that has been commented on by many authors (e.g. Malinowski 1922) that the person with the highest prestige is not the one who possesses the largest stock of valuables, but the one who has found most people who have been prepared to accept them from his.

Another characteristic of these goods, which can be related to their use as prestige tokens, is that they are measurable. If there were any confusion in measuring what rights have been bought, the whole of social intercourse could be brought to a standstill. The publicity of gimaiye, the method of keeping accounts, and the unitary nature of valuables can be seen as aspects of the need for measurement.

It can hardly fail to be recognised that the characteristics of gima commodities are almost exactly the characteristics of commodities which serve the function of money. Thus Gregory

(1935:501) says "the characteristics (of money) are homogeneity, portability, divisibility and durability.. It is a store of value and a standard of deferred payments". All of these characteristics except divisibility are needed if a commodity is to be used as a prestige token; small wonder that European money should have first found a use in gima activities, and only later come to be used in other activities. Small wonder too that early anthropologists should have disagreed whether valuables or prestige tokens were money or were not, since they have the same attributes except for divisibility, though they are not "generally acceptable in exchange". The association between prestige tokens and ceremonial probably gave rise to the evolutionists' idea that "the monetary functions of all objects used as means of exchange and standards of value, before the introduction of coins, originated from their use for religious purposes" (Viljoen 1936:228). If the general type of object used as a power symbol is the non-productive, scarce, durable, portable, homogeneous article like shell, money, in one of its uses, represents not merely the goods it can buy, but power itself.

The common features of luxury goods are less easy to specify, but they include storability, scarcity, portability and consumability. These qualities can be seen as necessary if a commodity is to be used to provide gratification, over and above the subsistence level, and at the whim of the owner. If he is to use them at his whim they must be available when needed, and hence storable. If they are not to

form part of the universal, indispensable consumption pattern of subsistence they are likely to be scarce. If they are scarce they must be transferred from their source of supply to the person to whom they are allocated, and such transfers call for portability. In this connection it is noteworthy that most luxuries in Siame are products of complementary but specialising areas, and thereby create problems of scarcity, allocation and transport. Scarcity, portability and storability are characteristic of prestige tokens, but luxuries differ from prestige tokens in that they are usually consumed to give gratification. If they are to be continually consumed they must also be reproduced, so that relative ease of production distinguishes luxuries from prestige tokens. It is in this light that I would interpret the tendency for money in Siame to become a luxury as it becomes more consumable through use in trade-stores, and more producible through work or sales to Europeans.

Novel capital goods, for use in maintaining a higher standard of life than that provided by subsistence activities have the same characteristics of durability and productivity that ordinary capital goods have. But their novelty and scarcity is a distinctive feature. Table 14 summarises the characteristics which commodities tend to have if they are to be used in any of the ways indigenous and introduced goods are used in Siame.

Activities in which goods are used.

<u>Qualities goods tend to have</u>	<u>Subsistence</u>		<u>Prestige</u>	<u>Luxury</u>
	either	or		
	plentiful	plentiful	scarce	scarce
	durable	consumable	durable	consumable
	fixed	portable	portable	portable
	productive	utilitarian	non-useful	utilitarian

Novel Capital Investment

scarce
durable
fixed
productive

Table 14. Qualities present in commodities which are associated with their use in particular activities in Siame.

A comparison with other systems.

In Siame, although there are instances where a commodity can in different circumstances be valued according to different standards, the four standards in terms of which goods are valued can be isolated operationally as well as analytically. The empirical isolation of each nexus of activity has been related to the absence of any universal medium of exchange in Siame, but even now, as money is being introduced, the four value standards are still analytically separable. These value standards are not restricted to Siame, however, and I propose to bring some evidence to show that they form the basis for many, if not all, non-monetary economic systems.

All societies perform subsistence activities. As Firth's characterisation of a peasant economy (1951:88 quoted on p. 10) shows, these activities are carried out by close kinship units which are both the units of production and the budgetary units in

most pre-industrial societies. The organisation of these productive units may be quite complex, involving a group head with organising and redistributive functions, as is the case with the ariki in Tikopia (Firth 1939). The functions of such group heads constitute socially accepted roles, and the payments the heads make do not contribute to changing the prestige the group head enjoys. The payments are customarily of the same kind of goods that are used to satisfy physical needs, and constitute part of the "maintenance of the existing standard of life" which has already been said to be the social function of subsistence activities.

Many anthropologists describe subsistence activities in primitive societies, and differentiate them from systems of ceremonial exchanges and trade which they group together as the use of some form of "economic surplus".¹⁷ These systems are commonly treated as one unitary whole, in which the motivation to activity is provided by the obtaining of "utility". I consider that a more fruitful analysis is that which considers some transactions as use to obtain prestige, and others as use to obtain luxury.

The classic example of such systems is that of the kula of the Massim and Trobriand Islands (Malinowski 1922, Fortuna 1932, Tueting 1935, Belshaw 1955). In the kula chiefs or important

 17. For a critique of this concept see Belshaw (1954:6). Belshaw notes the value judgment implicit in the idea of "subsistence", but does not deal with the value judgments implicit in such ideas as "conspicuous consumption", for example.

men pass on non-utilitarian arm-shells or shell beads in a circular exchange system. Beads circulate in a clockwise direction, arm-shells in an anti-clockwise direction. The beads and arm-shells are rarely worn, but are exchanged again almost as soon as they are obtained. Some interpreters (e.g. Thurnwald 1932:148) see the kula as almost a game, bringing people together as a preliminary to their conducting trade exchanges of betel-nut, coconuts and craft goods, and they see the trade as the main object of the kula. However, Malinowski's description makes it clear that the trading exchanges are seen by the natives as incidental to and of less importance than the exchanges of beads and arm-shells. He also points out that the same partners may not trade and exchange shells and beads (1922:362). The sanction ensuring that equality of exchange between shells and beads is said by Malinowski (p. 511) to be the "repayer's own sense of what is due.. to his own dignity", and is thus the same as that analysed by Mauss (1923:72) which I have quoted. Until an equivalent return is made, the recipient feels inferior, and the system of exchanging valuables is subject to the same rules as the Siane gima system.¹⁸

The Trobriand system of trade, although carried out in the shadow of kula exchanges, involves different commodities, different relationships between trade partners, and different trade partners, and also different activities at the time of exchange (Malinowski 1922:189 et seq). The commodities -- wooden bowls, baskets, red

18. The kula is not the only Trobriand prestige exchange system, for there is one between smaller groups involving exchanges at marriages and funerals, etc. (Malinowski 1922:175 et seq).

ochre, coconuts, obsidian, etc. -- are produced in different areas which have specialisations, and generally they have the qualities of luxury goods. Similar systems of trade, co-existing with but distinguishable from prestige exchanges are common throughout Melanesia and have been described by Bell (1933), Mead (1938), Wedgwood (1933), Gitlow (1948), Belshaw (1950) and Oliver (1956). But they are not limited to Melanesia.

The potlatch system of the Kwakiutl and other tribes of the Northwest Pacific coast of America, where blankets and sheets of copper form prestige tokens, is well known from the writings of Benedict (1934) and from the more scholarly analyses of Boas (1921), Barnett (1938) and Codere (1950). The prestige tokens were given away to validate the assumption of prerogatives or new statuses, or to shame the recipients. Codere (1950:63) does argue that subsistence goods were sometimes used in potlatches and that it is unjustifiable to separate a subsistence "economy" from a prestige "economy". But she also says that when subsistence goods were so used, they constituted "fantastic surpluses above any conceivable need". This would agree with Siane experience that such surpluses are valued in terms of prestige, while consumable quantities are valued in terms of subsistence.

The Kwakiutl also conducted exchanges of utilitarian luxury goods, and travelled far and wide along the coast to make them. The production of these goods was conducted by tribes which

specialised (Codere 1950:29) in such commodities as dried halibut and olachen oil. Boas (1921) mentions the production and exchange of viburnum berries and crab apples (p. 762), dried salal berries (p. 269) and dried herring spawn (p. 254) in much the same terms. The term "bad things" (Codere 1950:64) was used for these luxuries, and the similarity to the Siane term "little somethings" is striking. In modern times flour, silk scarves, dishes and Canadian money have been incorporated into this category of goods. All these luxuries could be used in vast quantities as inferior prestige tokens, but their normal use was in self-gratification or entertaining.

In Australia such systems are also known. Stanner (1934) describes two exchange systems of the Daly River tribes one of utilitarian goods called merbok, and one involving payments to men assuming obligations for feeding and caring for women, and called kue. The same commodities may be used for each type of exchange but the different standards of evaluation of the commodities are shown by the sanctions against default in exchanges. If there is default in merbok, the friendly links with distant partners are broken, and no further goods are obtained. If there is default in kue the defaulter receives "the lasting ignominy of disrepute", and "it is a matter of no small account to be known as a man who has given a good account of himself in kue" (Stanner 1934:463). In merbok, through the custom of "milking" gifts of ochre, gum and beeswax before passing on the remainder to another

trade partner, "no unsubstantial material gain..comes to a man with efficient partners" (p. 174). It is true that having prestige enables an individual to gain material advantage, but generally the existence of alternative standards of valuing commodities leads to conflict over how they should be used in any particular instance.

Examples of exchanges of power for tokens, such as cattle, are common in Africa (c.f. Herskovits 1926, Richards 1932:97) and in such cases the non-utilitarian nature of the cattle is brought out by the restricted use of them in subsistence diet. The connections between cattle exchanges and the markets for luxury goods in Africa are less clear, but the cattle exchanges are usually linked with the political structure of society (c.f. Leach's 1951 analysis of the Lovedu), while luxuries are exchanged in a context of buying and selling.

There is thus a case to be made in favour of the assertion that in many primitive societies value is attributed in accordance with three discontinuous scales, that these scales often apply to distinct commodities, and are observable in distinct systems of production and exchange. This empirical distinctness is marked in two societies for which detailed analyses are available -- the New Zealand Maori (Firth 1929) and the Nigerian Tiv (Bohannen 1955).

The Maori produced and consumed subsistence goods within the village units and there was "little exchange of goods between members of the same village" (Firth 1929:396). By contrast

"transactions between people of different communities were fairly common (and).. exchange arose through differences in the economic resources of the various tribes. Food stuffs were the chief commodity which changed hands" (p. 396). Yet the list of foods so traded shows that they were not the foods involved in everyday subsistence, but were luxuries like shell-fish, shark-oil, preserved birds and forest berry-cakes. Together with ornaments and greenstone, they were traded by means of gift-exchange, but Firth distinguishes

"Two salient types of exchange, .. the exchange of coastal for inland products, and the movement of greenstone in return for foodstuffs, cloaks and other objects of fine workmanship" (p. 402).

Elsewhere he distinguishes

"the economic (form of gift exchange) in which the primary object is to acquire something of practical utility from the other party, (and).. the ceremonial (form), in which the transaction fulfills some wider social purpose, the acquisition of goods not being the principal motive" (p. 395).

Greenstone was the most striking object of the ceremonial exchanges, and Firth specifies why greenstone was so much demanded, giving a series of characteristics similar to those I have already given as being required if an object is to be a prestige token. He continues

"(greenstone) was so much used in exchange that it is sometimes said by Europeans that greenstone was the money of the Maori. This is quite incorrect. The stone at no time was a common measure of values, nor did it even act as a medium of exchange to facilitate transactions in other articles. It was simply the most prominent substance concerned in the reciprocal (ceremonial) exchange of gifts" (p. 402).

In the terms I have used in the present analysis this could be

stated as meaning that there was no common standard by which to evaluate greenstone, and, say, shark-oil. Firth concludes that the native economic system "was devoid of any finely adjusted scale of values"; I would say that it had at least three scales of value, each applying to a different range of substance. I shall return to the discussion of Maori economics when I compare their economic change with that of Siane.

The Tiv of Nigeria distinguish three, and possible four categories of exchangeable items, and use different terms for each category. Thus

"all locally produced foodstuffs (yiagh).. are said by the Tiv to be of a single economic kind, and immediately interchangeable. (Included in this category are) chickens and goats, .. household utensils.., some tools and also the raw materials for producing any item in this category. .. The second important category includes slaves, cattle, white cloth and metal bars. .. This second category is associated with prestige (shagba) in the same way that the first category is associated with subsistence. The supreme category of exchange values contains only one item; rights in human beings other than slaves, and particularly in women. The categories represent the fundamentals of Tiv notions of exchange and investment" (Bohannen 1955:62).

Thus the Tiv value things in terms of subsistence, and in terms of power, though they make a distinction between two types of power or right. At first sight they do not appear to value things as luxuries. However, "imported, particularly European, food is not yiagh", while men trade for "goods which must be procured and traded over long distances; smoked fish, .. camwood and kolas .. and items such as cotton" (p. 68). Women trade for

things such as "a waist-cloth for herself or small gifts for her children". This trade is said to be "within the monetary economy", but it would seem to have existed to a limited extent previously, for with the "pacification of the countryside .. men's trading developed very rapidly" (p. 68). It would seem to constitute an exchange of luxury goods.

Exchange of goods of the same category was normal and in accordance with a known system of exchange values (ishe). There was a possibility of "conversion" or the exchange of goods of one category against goods of another, but this was not common. The man who obtained a prestige token for a subsistence commodity is considered successful, and his partner unsuccessful, and there is "a strong moral quality in the rationalisation of conversions" (p. 65). I would say there are moral sanctions against a man who trades prestige for subsistence, or subsistence for luxury, while the man who values prestige more highly is given moral support. I will discuss the effects of the introduction of money into the Tiv economy, when I compare them with the economic changes in Siane.

In these non-monetary economies the different value standards are distinguishable operationally. My last example is an attempt to show how the same standards can be isolated analytically in a monetary economy, or more specifically in the valuation of a car in America. I quote from personal experience.

As a student, my social role did not necessitate my having

a car. My standard of living was low, and I valued few things as prestige tokens; my standard of comfort was at a minimum, but my demand for luxuries very elastic. When I became a salary earner my social role changed, and a car was necessary for me, if I was to keep my job and my subsistence, since my work was inaccessible by public transport. A novel capital expenditure was needed to change my standard of living. My new social role implied a minimum obligation of paying for transport to work. The cost of petrol, oil and insurance is about \$400 ^{per annum} /and varies little between cars. On the other hand depreciation on a car varies between \$60 ^{a year} for an 8-year old car and \$1,000 for a brand-new car.¹⁹ For an 8-year old car repair costs average about \$80 per year, and for a new car \$10. The minimum cost of transportation for one year is thus about \$400+\$60+\$80 or \$540, including the subsistence-capital expenditure of maintenance. The additional payment of \$870 to run a new car for a year can be considered as a payment for something other than subsistence.

Firstly there is the comfort of riding in a new car, the sense of security in not being afraid of a breakdown, the pleasure of entertaining friends and the pleasure of "driving for fun". These constitute gratification over and above the subsistence level, and a proportion of the additional \$870 could be considered as the cost of luxury.

Secondly there is the "prestige value" of a new car, that

 19. These figures are taken from Consumers Reports January, 1955, and from personal records of expenses.

has been discussed by numerous sociologists (e.g. Riesman & Roseborough 1955), mainly in terms of the car being a symbol of social rank. A new car also conveys an amount of direct power, as can be seen when two men, both owning cars, wish to travel together. It is more likely that they will go in the newer car, and that any discussion of the route to travel or when to leave will be resolved in favour of the owner of the car that is driven. By paying for a new car, the owner has, to some extent, paid for rights to control the actions of others.

The example may seem trivial, but many similar ones could be given to support the contention that valuation, even in a monetary economy, can be analysed as being in accordance with four value standards.

Summary

Exchanges in Siane, which have previously been analysed as divisible into three nexuses of activity distinguished by the relationship between the exchange partners, are conducted in accordance with a different value standard in each nexus. These value standards are provided by the exchanger considering the relevance of the commodities involved to maintaining his existing standard of life as an occupant of defined social role, to obtaining an addition of free-floating power over and above that provided by his defined social role, and to obtaining gratification which, although permitted by society, is not provided by the standard of life and is not accepted as indispensable. In a situation of change articles can be valued in terms of

their contribution to maintaining as permanent a change that has been made. The goods which I introduced into the economy were valued in terms of each of these standards, each category of goods being valued differently. The possibility that goods, valued in terms of one standard at one time, can be valued in terms of a different standard at another time has been noted. These standards of evaluation appear to be present in many primitive economies and to be applied to empirically distinguishable types of goods in most cases. There is a connection between the intrinsic nature of many goods and the standard in terms of which they are valued. In some societies there is a possibility of valuing a commodity in more than one way; in a monetary economy it is possible to isolate the different standards of evaluation only analytically.

Chapter 9

Economic Values and Change -- a synthesis.

To classify standards of evaluation, however universal the value standards might be, would be sterile if the various value standards could not be related to something else. However one immediate relationship is suggested by the association of different elasticities with goods valued according to different standards, as was described in Chapter 7. If the analysis given there in terms of categories of goods is translated into terms of value standards it means that the first reaction of Siane men to an increase in the supply of goods of all types was to take goods which could be exchanged for power. After a certain number of goods had been taken, they took goods giving an increased standard of comfort. Finally they stabilised the amount of comfort-producing goods taken and took goods valued for maintaining a higher standard of living than was normal previously. Throughout this period a relatively stable amount of goods (soap) maintaining the existing role structure of the society was taken.

In a society, such as Siane, where subsistence needs are adequately met, it is not unusual for an increase in wealth to be used to increase personal power. Firth (1951:144) follows Veblen (1899) in discussing how great in primitive society is the incentive to work provided by the possibility of conspicuous consumption. But I have already outlined (pages 159 and 290)

why the amount of prestige available should be limited, and why the exchange value of goods in terms of power should fall when the supply of goods increases. My own rates of exchange did not decrease, and presumably the rate at which natives were prepared to exchange prestige for goods rose above the rates which I used to compare prestige goods with luxuries. At this point demand switched to luxuries.

This demand I have shown to be a learned demand, which takes time to establish itself. Since aberrant individuals are permitted to demand such goods at any time, such a demand may continue at a low level, and it only expands as the example of the atypical members of society is followed by others. This demand is theoretically unlimited, but in practice there are limits. In the first place, if a commodity is universally desired by all members of a group, use of that commodity tends to become thought of as a criterion of membership in the group, and it ceases to be a luxury. The second limit is given by the fact that any infinite increase in luxury demand would mean a cut in capital investment and a decline in the productivity which permits the demand for luxuries.

I do not know whether to interpret the stabilisation of the demand for luxuries as their inclusion as part of the standard of life, or as an attainment of a level of diminishing returns in gratification that kept demand stable. In either case the switch to capital investment, either to enable the new luxuries to become

commonplace, or to increase the level of gratification in other ways, is what would be expected.

This microcosmic view of the process of change from one level of standard of life to a higher level, by passing through phases of demand for prestige goods, demand for luxuries, and then a demand for capital to stabilise production at the new level, is comparable with the macrocosmic view of economic change provided in Chapters 3 and 4.

First steel tools increased the potential productivity of the whole economy. The level of subsistence consumption did not change, for the consumption of subsistence goods is determined by the cultural statement of what is essential to the performance of the social roles in society. Instead the quantity of goods produced remained stationary, capital investment was reduced, and less labour was used also. The surplus of time available could be used in other ways. My only direct evidence is of the expenditure of time in ceremonial, although there is impressionistic evidence that more time was spent in fighting and on craft production. Ceremonial and fighting are both ways of showing a pre-occupation with power and rights, and the choice of which to use would seem to have been largely influenced at this time, by the great increase in numbers of valuables available.¹ Contacted

1. Codere (1950: 98 et seq) shows that the Kwakiutl, in a comparable situation, made the same choice though she does not stress the fact that a choice was involved.

groups on the borders of Siane used their greater wealth to obtain rights over women and pigs (c.f. Salisbury 1956b) but gradually the differential in power between contacted and uncontacted groups tended to disappear. Uncontacted groups became wealthier, and less prepared to exchange rights for valuables. The exchange values of valuables against power declined, and some valuables, such as cassowary egg-shell beads became "demonetised". As more distant groups were exploited, an equilibrium was reached with both power and stocks of valuables distributed almost evenly over the Siane area. In effect the new productive techniques had given the natives the chance of altering the balance of power. The balance was restored through the operation of supply and demand, and through an increase in the number of prestige tokens in circulation, and in their rate of circulation.

But changes had been made in the patterns of social intercourse between individuals, seeking personal gratification. Feasting, the presentation of luxury gifts, and the individual's range of social contacts all increased, while the possibility of work for Europeans increased the amount of luxury goods available. Work outside the community taught men to demand luxuries and this demand was being learned by even the least contacted people in Siane -- the women -- while I was in the field. It was not a universal demand and the amount of permissible individual variation in consumption had increased, although it is possible to assert that the overall standard of comfort had increased.

Thus the new standard of comfort is mainly supported by work outside the village. If it is to be converted into a higher standard of living, maintained within the role structure of native society, novel capital investment will be needed. I have shown that the existing organisation of society acts to hinder novel capital accumulation and investment. In effect this limits most investment to exactly what is required to maintain the existing standard of living, or about one day of capital investment to every 43 days of labour. To the extent that more than one forty-fourth of the time of Siane men is spent on novel investment such as road-building, tree-growing or land improvement a higher standard of living will be possible.

It will be seen from this analysis that increases in the standard of living are not steady moves along a continuum, but occur in discrete jumps. The phenomena of conspicuous consumption and an increase of luxury spending are seen, not as irrational behaviour but as adjusting society to the changes in the distribution of power, and as providing a learning situation where new potential subsistence demands can be learnt. It is at the point where these new demands become incorporated as subsistence demands that difficulties are experienced if the rate of novel capital investment does not equal the amount required to produce the goods demanded.

For Siane this cycle of change processes is clear because the standards of evaluation are clearly distinguishable. The

same cycle is distinguishable in other societies where the standards of evaluation are separable. Thus when Europeans first arrived in New Zealand, the Maori (Firth 1929) demanded objects which could be used in ceremonial exchanges, such as cloth, bead ornaments, and above all, axes which resembled the greenstone mere more than they did ordinary work axes. There are indications that the introduction of these goods resulted in an increase in the trading of rights over individuals (c.f. p. 461n and 460n), but more obvious was the increase in warfare to gain power, which followed the introduction of firearms.

The Maori were able to exchange commodities which were not "of primary importance in the original native economic scheme" (i.e. luxuries), such as kauri spars, flax and potatoes for valuables. Firth points out (p. 455) that the increased time devoted to the production of such goods tended to disrupt the economic organisation, but does not take into account the saving of time caused by the introduction of steel tools. The period seems to resemble the first phase of indirect contact in Siane. Time saved from subsistence activities was spent in obtaining valuables to be used to obtain power through ceremonial exchanges or through warfare. The difference is that the valuables were obtained through the production of luxuries, and not by indirect trade.

The next phase of Maori economic change "was characterised by a greatly increased demand for European goods" (p. 457),

mainly for clothes and tobacco, but also for some soap and European goods such as wheat. This period started about 1840 and by 1852 the Government reported that the Maori had (p. 460) "started with an energy quite surprising in the pursuit of gain", with new skills learned and an organisation of their marketing. The demand pattern would be characterised in Siane as "Native Luxury", and the situation resembled the Siane situation soon after direct contact was established.

At this time the Maori began to acquire novel capital investments, as would be expected if the new standard of comfort was being incorporated in a higher standard of life. By 1849 numerous flour mills had been erected and some farming equipment obtained, mainly under corporate ownership but there was some increase in the private ownership of capital (p. 463).²

"From what has been stated so far it may be thought that the course of Europeanisation of the Maori economic system was proceeding smoothly as the result of a process of gradual replacement" (p. 464).

But there was also much "discontent which came to be focused on the matter of land". Though much of this discontent can be traced to the religious and kinship importance of land, in the present economic analysis the loss of land can be seen as a large capital loss, masked at first by the acquisition of mechanical capital but eventually irreplaceable. Without it the new standard of living could not be maintained; the Maori war ensued and since

2. At this time the introduction of money also affected the system, but its effects are not clear.

then the diminished stock of land capital has only supported a proportion of the Maori community, and the rest have been incorporated into the more urban European system. The picture is one of an awareness by the natives of a need for capital expansion to support a higher standard of life, but of disaster when the capital was invested injudiciously.

The sequence of change in Eastern Melanesia (Belshaw 1954) was also similar.

"The introduction of manufactured implements (meant) the amount of labour required to perform a wide range of specific tasks decreased. The result was that more time was spent on activities which were not materially productive, rather than that the same amount of time was spent in order to increase the supply of material wealth" (p. 60).

These "non-productive" activities are described as producing "utility in non-material forms such as leisure, gossip and social activity" (p. 89), but specific examples are given of increased trading in valuables and power³ (p. 131³) and of trading for luxury goods (p. 125). No distinction is made between the two types of trading, but this may well be due to the difficulty of tracing historical sequence in the distant past of non-literate communities.

Belshaw then discusses the luxuries which now constitute the major items purchased by natives at trade-stores. He lists them (p. 121) and points out that they are low-priced. In discussing present trends he says that

"after a point of satiation (of the demand for luxuries) has been reached in terms of the present culture, it

 3. This example shows how an increase in bride-price payments on Atchin returned the power to the old men, after their domination had been threatened by the productivity of the young men.

"requires either new education to induce demand for goods of slightly higher values, .. or else a heavy increase of income so that certain impossibly high priced articles come within purchasing power" (p. 122)

This plateau in the level of luxury demand is consistent with the experience of the Siane, and the present analysis does not see it as a difficulty. It is what would be expected as the luxuries become incorporated into a new standard of live (and the "present culture" changes). The question is whether novel capital expenditures are being made to support a higher standard of life. When once they have been made, the whole cycle of demand for prestige goods, demand for new luxuries and novel capital goods might be expected to start again.

The problem of novel capital investment has been treated by Belshaw (1955) in a study of the Southern Massim. There the difficulty that the "purchase and ownership of large items of capital equipment, notably boats and trucks (is) beyond the resources of individuals" (Belshaw 1954:104) has been largely overcome through village co-operatives and through the use of lump sums received by the villagers as compensation for war damages. The Southern Massim is consolidating a new standard of life; the Siane are reaching the point of satiation of luxury demand.

The belief that it is the "impossibly high price" of other articles which limits the expansion of luxury demand is linked with the idea that money, or an increase in generalised purchasing power is a single, undifferentiated spur to activity which can be obtained

in the form of minimally small increments. Though this may be true in a monetary economy it is not true in a non-monetary economy, where the goods, and the value they are exchangeable for, constitute the spur. This difference may limit the generality of findings based on Siane.

There the lack of convertibility between the commodities and values of the different nexuses of activity means that there is little competition for resources, whether they should be allocated to obtaining one value or another.⁴ Most of the competition is between alternative means of producing the same type of value. Thus there is no competition between whether a gold-lip shell shall be used to obtain power over a bride, or to maintain the organisation of the productive clan group, but there is competition between its use in obtaining power over women and its use in peace-making ceremonies. The introduction of money as notes which are used as tokens of power, and as coins which are exchangeable for luxuries did not alter this general lack of economic choice. Time was still the most important commodity which can be used to produce alternative values, but even so, the relatively inelastic demand for the production of subsistence values left little time to be allocated by free choice to the production of other values. Insofar as the

4. Many anthropologists have discussed the incentive to production provided by religion, and the choice the individual must make between the allocation of food to feasting and to personal consumption. In Siane I did not find this was a choice between different values, for food consumed in religious feasting is devoted to the maintenance of the productive group, albeit by non-scientific means. The extra production needed was planned well in advance, and never entailed a reduction of food below the subsistence level. It did mean that women would not bring in food for sale, and this accounts for Mission and Government statements about natives being improvident at times of ceremonials.

the introduction of money is introducing a choice of what values to produce it is doing so by virtue of its divisibility into small units. To that extent the economy is becoming more "rational", but I would maintain that the "irrational" elements in the process of economic change (c.f. the plateau in the demand for luxuries) can best be understood if the existence of disparate value standards is granted. Much of the dis-organisation of primitive economies may well be due to the natives being forced to make a choice between prestige and subsistence, for example, and, where before subsistence was taken for granted and power was exceedingly scarce, they have chosen power to the exclusion of subsistence and fought or traded themselves into extinction.

The introduction of money has brought another potential for change as it has made it possible to save a commodity which can produce subsistence values, without investing it. In the indigenous economy the fact that producer and consumer are the same individual ensures that capital goods are replaced as they wear out, and the sharing and "helping" ensures that sufficient resources are available to make the investment when it is needed. Such "help" represents a short-term "saving" of labour, while the sharing of food represents a short-term saving also. Both of these savings must be turned into investment, however. Money, on the other hand, can be hoarded and not re-invested. Among the Southern Massim (Belshaw 1955) this failure to re-invest the

surplus of production over consumption had resulted in the economy stagnating until the establishment of co-operatives incited the natives to invest their hoarded wealth.

This problem will arise in the near future in Siane. In essence it means that the introduction of money enables the savers to be differentiated from the investors. But while differentiation may lead to greater productive efficiency, it may also lead to a loss of the automatic co-ordination of investment and productive needs characteristic of a peasant economy.

The problems raised by the introduction of money - the potential discrepancy between savings and investment, and the possibility of conversion of values of one kind into values of another kind -- are both illustrated in the economy of the Tiv of Nigeria (Bohannen). "Money has provided a common denominator among the categories (of exchange values), which was previously lacking". (p. 67). The Tiv now carry out transactions in terms of money values, yet they distrust money as being "essentially unproductive". They compare the old forms of capital with money and say "A man can't spend a field" to indicate that the use of money leads to the dispersal of capital accumulation. It also leads to the dispersal of food and has led to the disruption of the finely balanced system of distributing rights over women through sister-exchange marriage.

"The Tiv have come upon a simple paradox; today it is easy to sell subsistence goods for money to

buy prestige articles and women, thereby aggrandizing oneself at a rapid rate. The food so sold is exported, decreasing the amount of subsistence goods available for consumption. On the other hand the number of women is limited. The result is that bride-wealth gets higher...Under these conditions, as the Tiv attempt to become more and more wealthy in people (that form of wealth traditionally most productive of further wealth).. they are merely selling more and more of their foodstuffs and subsistence goods, leaving less and less for their own consumption" (p. 70).

These are the disadvantages of a "rationalisation" of a non-monetary economy. All of them may well occur in Siane in the near future, for the introduction of money and "rationality" is not a pancea for economic ills ensuring that all will be for the best.

This study has attempted to analyse some of the "irrational" elements of economic behaviour, and to show how they can be incorporated in an economic analysis of change. In Siane, and in many other societies, goods are valued, not in terms of one "standardised value scale" (c.f. Belshaw 1954:13), but in terms of three such scales when the economy is in equilibrium and in terms of a fourth when change is taking place. The differential evaluation of different goods in terms of these values appears as a factor affecting the process of change in such societies. There appears to be a cycle of change from one equilibrium state, where capital investment is at a fixed level and there is one "standard of life" to a higher equilibrium level with a higher standard of life, and a correspondingly higher level of capital investment. Change may be initiated by many things, but once

started it acts first to disrupt the distribution of power in the society. Through the use of goods which are valued for the power they represent the power balance is restored to an equilibrium. There follows a phase in which individuals use luxury goods to obtain such gratifications as are permitted but not positively demanded by the existing standard of life. This represents an increase in the "standard of comfort". If this standard of comfort is accepted as indispensable it becomes part of the standard of life. This is only possible if novel capital investments are made which ensure the standard of life can be maintained. Once the new standard of life is stabilised the whole process may begin another cycle.

These "irrational" values are operationally distinguishable only in simple non-monetary economies. In such economies there is less choice in the allocation of resources to producing values, than there is in a monetary economy, but there is also more automatic control of the process of capital investment. Although this study is strictly only applicable to non-monetary economies, it is hoped that the light it throws on "irrational" aspects of value will prove useful in the analysis of problems of economic change, not only in Siane, but in other parts of the world.

Appendix A

Time Budgets.

After I had observed most of the activities in Siane life, and had gained some idea of the techniques involved and the amounts of time involved in each activity, I wished to estimate the relative frequency of each activity. I tried to obtain information from 8 individuals on what they did in one week, with a view to making several such periodic checks, but found it impossible to keep track of so many men. I accordingly selected a sample of 12 men, and checked on what activities three of those men performed every day for one week. The next week I "followed" a different three men, and so on over a period of nine weeks.

The sample of 12 men was selected on a basis of stratification in terms of social status. There were 3 youths (aged 13, 16 and 19); 2 married men without children; 3 married men (aged 24, 29 and 36) with children, but who were unimportant socially; 2 "big men" aged 40 and 45; and the luluai and tultul of the village (ages 35 and 29 respectively). This may be compared with the total population of the village (Antomona clan of Emenyo tribe) of 34 youths, 16 childless married men, 22 unimportant married men, 17 "big men", 2 village officials. Except for the category of village officials, the sample is fairly representative.

I did not let these men know they were being "followed", in case this might bias my results, but each day I either saw them at work, talked with them as they went to work or came home, or

politely asked about their health and activities from near relatives. For only 17 man-days of work was I unable to learn what had been done by the individuals I was "following".

In deciding whom to follow each week I followed a plan formulated before I commenced close study, so that there would be no question of my observing only those individuals whom it was easiest to observe. Each week I followed men from three different categories, and in succeeding weeks I changed the categories so that all men were followed an equal amount, but the same categories were not followed at the same time. Thus if the five categories are termed a), b), c), d), and e), I followed in the first week men from d-e-c; in the second week b-c-d; in the third a-d-e; in the fourth a-b-c, and so on.

The activities performed were categorised as

- 1) Work on large communal gardens, building fences, clearing and planting.
- 2) Work on lineage tasks, mainly making individual gardens, repairing fences, and planting, but some housebuilding and hunting.
- 3) Work at home, usually performing craft activities by the older men, but also some idling by the youths.
- 4) Sick at home.
- 5) Visiting, or entertaining visitors.
- 6) Ceremonials, participating or attending.
- 7) Courts, settling or participating.
- 8) Government work.
- 9) Attending Mission services.
- 10) Playing football.

The unit of measurement was the day, or half-day of work, as this has been described on pages 76 et seq. The time spent by each individual at each of the various tasks during the nine weeks of

close study, and the week of preliminary study is shown in

Table 1 below.

		Days spent in each category of work										
		1	2	3	4	5	6	7	8	9	10	Total
youths	a	-	-	$1\frac{1}{2}$	-	-	4	-	$2\frac{1}{2}$	1	3	12
	b	-	$4\frac{1}{2}$	$1\frac{1}{2}$	5	$3\frac{1}{2}$	1	-	$1\frac{1}{2}$	$1\frac{1}{2}$	$1\frac{1}{2}$	18
	c	$\frac{4}{4}$	$\frac{1}{2}$	$5\frac{1}{2}$	$\frac{1}{6}$	-	-	-	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{5}$	$12\frac{1}{2}$
	total	$\frac{4}{4}$	$4\frac{1}{2}$	$8\frac{1}{2}$	$\frac{1}{6}$	$3\frac{1}{2}$	$\frac{1}{5}$	-	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{5}$	$42\frac{1}{2}$
Childless men	a	-	-	2	3	-	4	-	1	1	2	13
	b	$\frac{3}{3}$	$9\frac{1}{2}$	-	-	-	$3\frac{1}{2}$	-	$1\frac{1}{2}$	-	-	$17\frac{1}{2}$
	total	$\frac{3}{3}$	$9\frac{1}{2}$	$\frac{2}{2}$	$\frac{3}{3}$	-	$7\frac{1}{2}$	-	$2\frac{1}{2}$	$\frac{1}{1}$	$\frac{2}{2}$	$30\frac{1}{2}$
unimportant men	a	1	$10\frac{1}{2}$	1	-	-	$4\frac{1}{2}$	1	$1\frac{1}{2}$	-	-	$19\frac{1}{2}$
	b	$8\frac{1}{2}$	5	2	1	1	-	1	$2\frac{1}{2}$	1	-	22
	c	$3\frac{1}{2}$	$\frac{1}{2}$	3	-	6	$3\frac{1}{2}$	$\frac{1}{3}$	2	$\frac{1}{2}$	-	$20\frac{1}{2}$
	total	$\frac{13}{13}$	$\frac{16}{16}$	$\frac{6}{6}$	$\frac{1}{1}$	$\frac{7}{7}$	$\frac{8}{8}$	$\frac{3}{3}$	$\frac{6}{6}$	$\frac{2}{2}$	-	62
"big men"	a	6	1	1	7	-	3	$\frac{1}{2}$	$\frac{1}{2}$	-	-	19
	b	$\frac{3}{9}$	$\frac{1}{2}$	$4\frac{1}{2}$	3	$\frac{2}{2}$	$1\frac{1}{2}$	-	$1\frac{1}{2}$	$\frac{1}{2}$	-	17
	total	$\frac{9}{9}$	$\frac{2}{2}$	$5\frac{1}{2}$	10	$\frac{2}{2}$	$4\frac{1}{2}$	$\frac{1}{2}$	$2\frac{1}{2}$	$\frac{1}{2}$	-	36
officials	a	8	2	$\frac{1}{2}$	1	$\frac{1}{2}$	$3\frac{1}{2}$	$2\frac{1}{2}$	$3\frac{1}{2}$	1	-	23
	b	$\frac{9}{17}$	$\frac{1}{3}$	$3\frac{1}{2}$	-	-	$1\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$	-	$\frac{1}{2}$	20
	total	$\frac{17}{17}$	$\frac{3}{3}$	$\frac{4}{4}$	$\frac{1}{1}$	$\frac{1}{2}$	$4\frac{1}{2}$	$\frac{5}{5}$	$\frac{6}{6}$	$\frac{1}{1}$	$\frac{1}{2}$	43

Table 1. Man-days spent by individuals of Antomona clan, Emenyo tribe on various activities during periods of 2 or 3 weeks between June 13 and October 17, 1953.

The great diversity in individual figures is an indication of the variety of individual motivations to work, and the changing nature of men's occupations from week to week. A calculation of the percentages of total time spent by each category is shown in Table 2.

% of time spent in each activity

Activity	Category of worker					Total clan
	Youths	Men no children	Unimp. men	Big men	Offs.	
Clan work	9	10	21	25	40	22
Lineage work	11	31	26	5	7	16
Home work	20	7	10	15	9	12
Sickness	14	10	2	28	2	10
Visits	8	-	11	6	2	6
Ceremonial	12	25	13	12	10	14
Court cases	-	-	5	1	12	4
Government work	9	8	10	6	14	10
Mission	5	3	3	1	2	3
Football	12	7	-	-	1	4

Table 2. Percentage of time spent in various activities by various categories of male in Antomona clan Emenyo tribe.

The implications of these figures for the analysis of the economic values of the various categories in Siane society and of Siane values in general, are discussed in Chapter 3, page 165 et seq. The figures for "sickness", although probably representative for the whole clan, give undue weight to the fact that one "big man" was sick for most of one week when he was being "followed". The figures for "lineage work" are somewhat inflated because the periodic 'hunt' for flying foxes took place during the course of this study. On the other hand the figure is somewhat depressed for no house-building, another periodic activity, took place between June and October, 1953.

Appendix B

Demand for European Goods in Siane, 1952-1953

During the first ten months of the period of field-work records were kept of all goods demanded by natives in payment for food, goods or services supplied to the anthropologist, as was described in Chapter 7. Fixed exchange rates for goods, cash, food and services were set up during the first month and maintained until the end of record-keeping. All records show the number of units of goods or services valued at threepence changing hands. Whenever a transaction was made, an entry was made on a rough check list. These entries were totalled at approximately two-week intervals. Each entry specified what clan the native came from (and for one clan the name of the individual also), and what he took. In the figures given the goods demanded have been grouped into categories as explained in Chapter 7. These categories are: - A) "native valuables", B) luxuries, C) novel European hard-goods D) soap, E) cash. The biweekly periods have been grouped into longer periods to provide adequate numbers of transactions to merit talking about "patterns of demand". The figures are of numbers of transactions involving a demand for a specific category of goods during a specific period.

<u>Paramana clan, Emenyo tribe</u> <u>demanded</u>	<u>Category of goods</u>					
	A	B	C	D	E	Total
Dec. 17 - Mar. 13	177	30	9	20	41	277
Mar. 14 - May 25	72	33	16	3	2	126
May 26 - Oct. 6	<u>11</u>	<u>64</u>	<u>12</u>	<u>12</u>	<u>4</u>	<u>103</u>
	260	127	47	35	47	506

<u>Antomona clan, Emenyo tribe</u> <u>demanded</u>	Category of goods					Total
	A	B	C	D	E	
Dec. 17 - Jan. 1	47	-	-	-	85	132
Jan. 1 - Jan. 17	111	13	10	18	25	177
Jan. 18 - Feb. 16	152	28	-	12	54	246
Feb. 17 - Mar. 13	120	38	5	26	5	194
Mar. 14 - May 25	125	163	40	54	135	517
May 26 - Aug. 2	57	126	23	23	153	382
Aug. 3 - Oct. 6	<u>148</u>	<u>109</u>	<u>71</u>	<u>73</u>	<u>122</u>	<u>523</u>
	760	477	149	206	579	2171
<u>2 clans of Fowe tribe</u> <u>demanded</u>						
Dec. 17 - Oct. 6	19	12	12	7	-	50
<u>Rofaifo clan, Komunku tribe</u> <u>demanded</u>						
Dec. 17 - Jan. 1	17	6	-	-	38	61
Jan. 2 - Feb. 16	97	25	3	8	33	166
Feb. 17 - Mar. 23	36	22	16	31	9	114
Mar. 24 - Oct. 6	<u>50</u>	<u>151</u>	<u>64</u>	<u>192</u>	<u>-</u>	<u>457</u>
	200	204	83	231	80	798
<u>Waifo clan, Komunka tribe</u> <u>demanded</u>						
Dec. 17 - Jan. 30	5	24	-	-	104	133
Jan. 31 - Mar. 23	16	3	-	20	9	48
Mar. 24 - Aug. 2	20	82	13	27	-	142
Aug. 3 - Oct. 6	<u>13</u>	<u>27</u>	<u>9</u>	<u>34</u>	<u>40</u>	<u>123</u>
	54	136	22	81	153	446
<u>Roanti clan, Komunku tribe</u> <u>demanded</u>						
Dec. 17 - Oct. 6	48	43	14	66	38	209
<u>3 clans of Aranko tribe</u> <u>demanded</u>						
Dec. 17 - Jan. 17	7	-	-	-	39	46
Jan. 18 - Feb. 28	21	21	1	17	8	68
Mar. 1 - May 25	181	22	5	40	-	248
May 26 - Oct. 6	<u>69</u>	<u>64</u>	<u>11</u>	<u>43</u>	<u>-</u>	<u>187</u>
	278	107	17	100	47	549
<u>4 clans of Ramfau tribe</u> <u>demanded</u>						
Dec. 17 - Feb. 28	60	2	-	-	21	83
Mar. 1 - May 25	49	-	14	-	7	70
May 26 - Oct. 6	<u>30</u>	<u>13</u>	<u>4</u>	<u>9</u>	<u>40</u>	<u>96</u>
	139	15	18	9	68	249

	<u>Category of Goods</u>					Total
	A	B	C	D	E	
<u>2 clans of Duma tribe</u> <u>demande</u>						
Dec. 17 - Oct. 6	170	27	18	64	1	280
<u>2 clans of Raya tribe</u> <u>demande</u>						
Dec. 17 - Oct. 6	72	31	42	47	16	208
<u>6 clans of Gai tribe</u> <u>demande</u>						
Dec. 17 - Oct. 6	104	8	2	20	-	134

Appendix C

Demand for European Goods by Antomona clan, Emenyo
tribe, 1952-3

Records were kept of all transactions involving the exchange of goods or services for European goods for each individual of Antomona clan, as described in Chapter 7. In the tabulations below, the figures for individuals are given as totals for each of the following category of person: -

- 1) Men returned from indenture 2 years previously
(4 individuals)
- 2) Village officials (2 individuals)
- 3) Men newly returned from indenture - mostly youths
(17 individuals)
- 4) Youths who had not been indentured (22 individuals)
- 5) Young married men without children (13 individuals)
- 6) Unimportant men with children (18 individuals)
- 7) "Big men" (15 individuals)
- 8) Women (54 individuals)

The transactions were classified by the type of article desired (as in the previous appendix), and by the period during which the transaction occurred. Figures refer to transactions involving 3d worth of goods or services.

		<u>Categories of Goods</u>					Total
		A	B	C	D	E	
DECEMBER 17 -							
JANUARY 17							
Categories	1)	26	10	-	6	56	98
of	2)	24	-	-	3	4	31
person	3)	8	1	9	3	4	25
	4)	9	-	-	-	1	10
	5)	10	1	-	3	-	14
	6)	12	-	1	-	1	14
	7)	5	-	-	3	16	24
	8)	64	1	-	-	28	93
		<u>158</u>	<u>13</u>	<u>10</u>	<u>18</u>	<u>110</u>	<u>309</u>

		Categories of Goods					Total
		A	B	C	D	E	
JANUARY 18 - FEBRUARY 16							
Categories of person	1)	16	8	-	-	-	24
	2)	16	1	-	4	-	21
	3)	46	2	-	-	-	48
	4)	23	7	-	-	42	72
	5)	14	9	-	8	-	31
	6)	-	1	-	-	6	7
	7)	2	-	-	-	-	2
	8)	<u>35</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>6</u>	<u>41</u>
		152	28	-	12	54	246
FEBRUARY 17 - MARCH 13							
Categories of person	1)	19	8	-	6	-	33
	2)	-	1	1	4	-	6
	3)	29	7	-	1	-	37
	4)	30	11	3	5	-	49
	5)	6	2	1	10	2	21
	6)	6	-	-	-	-	6
	7)	6	6	-	-	3	15
	8)	<u>24</u>	<u>3</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>27</u>
		120	38	5	26	5	194
MARCH 14 - MAY 25							
Categories of person	1)	6	31	6	8	-	51
	2)	12	1	1	8	-	22
	3)	27	34	15	1	31	108
	4)	26	59	14	25	48	172
	5)	8	16	4	12	7	47
	6)	16	9	-	-	26	51
	7)	17	11	-	-	13	41
	8)	<u>13</u>	<u>2</u>	<u>-</u>	<u>-</u>	<u>10</u>	<u>25</u>
		125	163	40	54	135	517
MAY 26 - AUGUST 2							
Categories of person	1)	-	10	-	-	3	13
	2)	8	1	-	8	1	18
	3)	13	38	5	6	60	122
	4)	20	50	14	8	83	175
	5)	8	4	2	1	5	20
	6)	7	14	1	-	1	23
	7)	-	3	1	-	-	4
	8)	<u>1</u>	<u>6</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>7</u>
		57	126	23	23	153	382

(340)

		<u>Categories of Goods</u>					
		A	B	C	D	E	Total
AUGUST 3 -							
OCTOBER 6							
	1)	-	3	16	4	-	23
	2)	1	4	4	17	-	26
Categories	3)	62	49	47	39	22	219
of	4)	26	32	3	9	43	113
person	5)	6	1	1	4	10	22
	6)	20	20	-	-	29	69
	7)	6	-	-	-	2	8
	8)	27	-	-	-	16	43
		<u>148</u>	<u>109</u>	<u>71</u>	<u>73</u>	<u>122</u>	<u>523</u>

Total period, December to October

	1)	67	70	22	24	59	242
Categories	2)	61	8	6	44	5	124
of	3)	185	131	76	50	117	559
person	4)	134	159	34	47	217	591
	5)	52	33	8	38	24	155
	6)	61	44	2	-	63	170
	7)	36	20	1	3	34	94
	8)	<u>164</u>	<u>12</u>	<u>-</u>	<u>-</u>	<u>60</u>	<u>236</u>
		760	477	149	206	579	2171

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This bibliography of works cited in the text is divided into three sections. Section A consists of works cited for their theoretical content; section B contains works dealing with the New Guinea Highlands, or New Guinea in general; section C includes works cited as comparative ethnographic material from other areas of the world, if they have not already been listed in Section A.

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