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SETTLEMENT PATTERN AMONG A GROUP OF EIVO AND SIMEKU SPEAKERS
IN CENTRAL BOUGAINVILLE

A DISSERTATION SUBMITTED TO THE GRADUATE DIVISION OF THE
UNIVERSITY OF HAWAII IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

IN ANTHROPOLOGY

DECEMBER 1977

By

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most to my research.
ABSTRACT

The purpose of this dissertation is to describe and analyze variation and change in the settlement pattern of shifting cultivators in the Atamo valley of Central Bougainville. The size, distribution and composition of the settlements inhabited by a population of Eivo and Simeku speakers are examined over a sixty year period, from just prior to European contact through 1976.

Life-time residential histories, genealogies and place histories were used to: reconstruct the pre-contact settlement pattern; isolate the environmental, cultural and social factors which influenced residential decisions; reconstruct the change in settlement pattern after European contact; and isolate the historical, environmental, social and cultural factors which influenced the residential decisions that account for the settlement pattern change.

The size, distribution and composition of settlements in the Atamo valley have been continually changing since prior to European contact. The majority of this change has resulted from household movement and not moves made by individuals at marriage.

Prior to contact, Atamos lived in hamlets which ranged in size from one to eleven households. "Focal" hamlets (i.e., those larger-than-average hamlets in which political leaders lived) were located on or near spirit shrine sites. Household and individual movements, which were the observable outcomes of residential decisions, tended to be out of and into focal settlements.
Residential decisions were influenced by a variety of factors. Misfortune, the demands of pig husbandry, and social discord resulted in movement out of settlements. Political leaders, who gained their status through competitive feasting, actively recruited followers and 'pulled' them into settlements. Leaders granted title to land and emphasized kinship relationships to encourage individuals and households to join them in the preparation of feasts.

After European contact, settlements continued to change in size, composition and distribution, but there was a general shift from focal settlements on mountain ridges to village type settlements on the valley floor. As the latter became foci of feasting and modern religious and political activities, they increased in size, and the number and size of pre-contact type hamlets decreased. Individual and household movement became directed into and out of villages and not, as formerly, between hamlets. The two villages of the area were moved closer to one another and were eventually merged into a single focal settlement, called a 'town' by residents, where the majority of the population now live. The maintenance of the 'town' as a population center is encouraged by political leaders who imply that the 'town' is part of a program designed to raise the standard of living of its residents.

This study raises some questions about assumptions ethnographers appear to make when doing their research and/or reporting their results. Many ethnographies and some more general works on social organization, depict local groups as if they change in size only when individuals are born, die and immigrate or emigrate at marriage or after the death of a spouse. In Atamo, and perhaps elsewhere, individual moves for marriage
account for only a small percentage of settlement group change. The
stability of residential groups and the relative importance of changes
in residence at marriage compared with other occasions cannot be assumed.
They are variables which should be investigated and quantified.

A second assumption that is questioned by the findings of this
study, is that the impact of colonialism can be disregarded and that
pre-contact influences are more important than post-contact influences
in explaining behavior. Emphasizing more "traditional" aspects of culture
and social organization for the sake of "salvage ethnography" may, in
fact, present a picture of a culture and social organization which never
existed.
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CHAPTER I

INTRODUCTION

The purpose of this dissertation is to describe and analyze variation and change in the settlement pattern of a group of shifting cultivators in the Atamo valley of central Bougainville. The size and distribution of the settlements of this group of Eivo and Simeku speakers are examined over about a sixty year period, from just prior to European contact through 1976. Aspects of culture and social organization are isolated as factors which account for the variation and change.

Problem and Analytical Approach

Ross's (1973) study of the Baegu of Malaita in the Solomon Islands stimulated my interest in settlement pattern and its use as a focus for the study of human behavior. By using residential groups as his units of analysis, Ross achieved two things. First he chose units which are universal and that can be described in precise numerical terms. Second, he avoided the descent group--local group controversy which has plagued Melanesian anthropologists for some years.1 Ross's (1973:4) decision-making approach emphasizes that the size and composition of residential groups change as a result of the conscious actions of individuals and that there are religious, social, economic and political factors which may influence an individual's choice of where and with whom to live.2

Although several ethnographic studies of Bougainville language groups have been written (e.g., Blackwood 1935; Ogan 1972; Oliver 1949,
1955; Mitchell 1971; and Nash 1971a, 1971b) none have focused specifically on settlement patterns or on residential decision-making. Through an approach similar to that taken by Ross (1973) I hope to make a contribution to the growing Bougainville literature and to the understanding of settlement pattern.

Like many ethnographers, I am interested in studying not only what was present during the field research period, but also what was present prior to European contact. Before going to Bougainville, I knew Eivo and Simeku speakers were not living in the scattered hamlets described by Oliver (1973:45) as characteristic of inland areas of Bougainville prior to contact. Formerly scattered hamlets had been consolidated into villages (Friedlaender 1974: pers. comm.), called 'line villages', established by the colonial administration. It hardly seemed likely that a study of modern settlement pattern and recent residential decisions would tell me much about what the situation had been prior to European contact.

To understand pre-European contact settlement pattern and the changes which had resulted in the settlement pattern I found evident when I entered the field, it was necessary to: (1) reconstruct the pre-contact settlement pattern; (2) isolate the environmental, cultural and social factors which influenced residential decisions; (3) reconstruct the changes in settlement pattern which occurred after European contact; and (4) isolate the environmental, cultural, social and historical factors which influenced the residential decisions which account for the change. I entered the field with these goals and spent the majority of my research time pursuing them.
Implications of the Findings

The significance of this study, beyond that of providing a description and analysis of variation and change of settlement pattern in a small geographical area on Bougainville, is that it raises some questions about the orientation which ethnographers appear to have when doing their research and/or writing their descriptions. Their orientation is one that stresses the stability and continuity of the groups which constitute the societies they study.

Firth (1963:39) notes that all anthropologists are faced with a dilemma: "to account for continuity and at the same time to account for social change." Leach (1965:7) is more critical of the orientation toward stability and continuity and accuses anthropologists of having a "prejudice in favour of 'equilibrium' interpretations."

Most ethnographies and some more general works on social organization (e.g., Fox 1967:77-96; Keesing 1976:242-265) depict local or residential groups as if they change in composition only when individuals are added through births and in-migrations at marriage and when individuals are lost through deaths, out-migrations at marriage or out-migrations after the death of a spouse. The assumption that marriage is the primary or only time individuals change their residential group affiliation is shown in the emphasis anthropologists have placed on "post-marital residence rules" (normative and/or statistical).

Ross (1973), Watson (1970) and Keesing (1965) show that in the societies they studied, which share similar agricultural practices and political organizations with other Melanesians, individuals and households may change their residential group affiliations at other times as
well. Ross (1973:242-283) outlines in detail the matrimonial, religious, political, social, and proprietary considerations which influence individuals' decisions about where and with whom to live and about when to move. He fails to show, however, the relative importance of moves for marriage as opposed to other considerations. His decision model "... gives us greater insight into the underlying processes and principles ..." (Keesing 1967:15) whereby the observable settlement patterns come to be. However, as Keesing notes, "decision models do not obviate the need for statistical analysis ..." (Keesing 1967:15) which might give us a better indication of why a particular settlement pattern is present at a particular point in time and how frequently it and the settlements which compose it change. 4 A decision-making approach combined with statistical data on the frequency of residential group change or the frequency of movement of individuals and households would yield not only a more complete understanding of settlement pattern and residential groups, but also help to put "post-marital" or life cycle residence moves into a better perspective.

The ethnographic bias toward stability and continuity is further evidenced by the way in which many ethnographers relegate the influence of alien, usually western, contact on the culture or society being described to a separate chapter or section of their monographs. It is curious that despite the stress put on the inter-relatedness of aspects of culture or social structure by anthropologists, particularly the so-called functionalists or structuralists (Keesing 1971:386-391), some feel they can suspend the impact of colonialism for the sake of "salvage ethnography" (Ross 1973:37) or emphasizing the "traditional" (Scheffler 1965:37). 5
Ross (1973:70-71) notes that in his study of settlement pattern he cannot altogether ignore change. He does show the apparent influence of missions and Marching Rule, a nativistic movement on Malaita, on the settlement pattern (ibid.:103-104). He also notes the percentage of males who have been away for wage labor (ibid.:66-67) and, in his section on acculturation (ibid.:59-70), he details other influences on Baegu life. However, one is left wondering how these influences relate to residential decision-making.

A more complete picture of the influence of European contact could be provided through a reconstruction of settlement pattern and the movements which cause change during different periods after contact. A decision-making analysis which includes the residential options open to individuals as a result of European contact and an outline of the conditions under which those options are taken would provide a more realistic and comprehensive model depicting how decisions are made.

Nature of the Data and Organization of the Study

The data on which this study is based were gathered using various methods which are discussed in Chapter II. Data on settlement pattern, on the movements which resulted in settlement pattern change, and on aspects of culture and social organization which influenced variation and change in settlement pattern prior to my arrival in the study area are largely based on informants' reports. Settlement pattern reconstructions are based on retrospective residential histories and settlement reconstructions built around them. I have chosen, therefore, to present the discussion of variation and change in settlement pattern in an historical sequence which begins with the ten years just prior to
European contact (c. 1925) and continuing through the field research period (August, 1974 through May, 1976).

In the remainder of this chapter I present a summary of the conclusion I draw about variation and change in settlement pattern.

In Chapter II, I discuss the field situation and methods used in gathering the data. I include an assessment of the limitations of the data and the field methods employed.

The remaining chapters in Part one (Chapters III through IX) deal with background information: The People (III); The Ecological Setting (IV); Contact History (V); Social Organization (VI); Land Tenure (VII); and Leadership (VIII). These chapters are intended to provide a brief introduction to the factors which have influenced variation and change in settlement pattern. I treat the topics as historically as the data permit and show how the factors are relevant to the focus of the study.

In Part II, I begin with the period just prior to European contact and describe and analyze variation and change in settlement pattern (Chapter X). This is followed by a discussion of how the dynamic pre-contact settlement pattern changed after European contact (Chapter XI).

In Chapter XI I examine the settlement pattern present, and changes in it, during my residence in the field. Attention is given to the spatial manifestations of social and political organization within and among residential groups as well as settlement pattern change. Because I was able to observe the process of residential group and settlement pattern change as well as record how it was described by informants, greater attention is given to the relationship between changes in residential group affiliation by individuals and households and changes
in settlement pattern. In addition, changes in usual place of residence are examined as part of the total spectrum of movement of which they are only a small part.

In Chapter XII, I summarize my conclusions about the factors which account for variation and change in settlement pattern from prior to European contact to the present. In addition, I make some predictions about future trends in settlement pattern change.

Pre-European Contact Settlement and Residential Decisions in Atamo

As far back in time as my settlement reconstructions permit (c. 1916), Atamo area settlements were located on ridges near spirit shrines which are said to be sources of supernatural power. Focal settlements, which had histories of continuous or repeated habitation, were associated with these shrines. Putative genealogical links between shrine spirits and living individuals were important focuses in land tenure claims which were important in residential decisions.

In Chapter IX I show that the size and distribution of settlements prior to European contact changed continuously. Most of this change was a result of movements, the majority of which were made by households. Households moved under identifiable conditions in the settlement in which they were living: misfortune, social discord and the death and emigration of political leaders. Households containing individuals with insecure property rights or with few close kinsmen in their settlement group had the highest propensity to move. The direction of movement or the destination of moves was influenced by the location of householders' close kinsmen and property to which they held or were given secure
rights. They tended to move into settlements where pig feasts were being prepared and political leaders were rising to power.

In the same chapter, I show that individuals moved separately from households at certain points in their life cycles: marriage and at the death of a spouse or parent. The direction of individual movements for marriage was influenced by the relative status of the partners' parents and/or mothers' brothers and by the location of land to which they held secure title.

From the movement of individuals and households, from descriptions of conditions under which movements occurred and from reasons for movements and choices of destinations of movements given by informants, I infer that individuals made residential decisions about where and with whom to live and when to move. The resulting decision-making analysis combined with knowledge of social, cultural and environmental conditions allows me to postulate some relationships between settlement pattern and other general factors which may have influenced it. 7

The low population density and the competition among aspiring and existing political leaders may have resulted in a higher frequency of settlement pattern change and movement than is reported by other Bougainville ethnographers. The pulsating nature of the change was a result of political leaders gathering people together for ritual pig feasts and the centrifugal tendencies of social discord, the demands of pig husbandry techniques and responses to misfortune. Short term movement and short term settlement pattern pulsations resulted from annual almond harvests and pig feast preparations.
Changes in Settlement Pattern and Residential Decisions after European Contact

In Chapter X, I show that significant changes in the settlement pattern and the patterns of household movement began occurring within ten years after European contact. The colonial administration appointed a headman who established a settlement called a 'line village' and encouraged people to move into it. Those adults whose names were recorded on the village census rosters were required to appear at the line village for annual or bi-annual censuses. Initially the line village was little more than the hamlet of the headman and his followers. It also contained empty houses belonging to others considered resident by the administration for census purposes but who actually continued to live in scattered hamlets. Among the Simeku speakers in Atamo, an unofficial line or 'half-line' was established which served as their equivalent of the line village. The village and half-line became, however, focal settlements for the entire area population as new activities and pursuits emerged and new options and considerations influenced residential decisions.

In addition to the line and half-line, other residential options became available, especially to men. Wage labor provided an opportunity for young men to obtain cash and travel. Mission schools were another alternative open to a few. As people took these options, left the area and returned, more took the same options.

The line and half-line became the focuses of post-contact style religious and political activities. A mission school was established in the village and mission services were held there. Following World War II,
cargo cult and modern political ideologies emerged and the line and half-line were the locuses of the activities associated with them. Individuals who were more interested in pursuing these interests resided in the line and half-line. Leaders associated with mission, cargo cult and modern political ideologies encouraged people to move into the post-contact type settlements. Older area residents who had not been away tended to be more interested in pursuing traditional interests and remained in hamlets.

The general post-war settlement pattern was two focal settlements, the line and half-line, surrounded by one to three household hamlets. The size of the village increased and decreased as hamlets were founded to raise pigs and subsequently abandoned when a feast was presented, generally in the villages. Individuals and households also moved in and out of the villages to engage in wage labor. When mission, cargo cult and modern political activities were intense, the village was large and there were few hamlets.

**Contemporary Settlement Pattern**

The contemporary (1974-1976) settlement pattern is dominated by a single focal settlement in which a majority of the population usually reside. Hamlets and household clusters within the focal settlement retain features of pre- and early contact hamlets in size and composition. The members of these clusters are generally closely related through kin ties and form activity groups organized by traditional and modern style political leaders.

Movement and residential group change remain features of modern settlement pattern. Residences other than those in which people spent
most of their time are claimed by about 40 percent of the area households, and make up a significant portion of the houses in the area. They are important in residential group change in that most changes in usual place of residence are moves to occasional residences. They provide flexibility in residential group affiliation and residence, and allow residence change to be gradual and often ambiguous. They also allow individuals to reap the benefits of both a nucleated and a dispersed settlement pattern.

Factors which account for changes in usual and occasional places of residence by households and individuals are much the same as those reported for earlier periods above. Disputes and misfortune sometimes result in shifts in residence. Pig husbandry and cash crops draw people out of the focal settlement while feasting and modern political activities tend to draw them into it. These latter, along with the prevalent political ideology which implies material benefits will eventually result from residence in the focal settlement, and the presence of the primary school, probably account for the maintenance of the nucleated settlement pattern.

Changes in usual place of residence, although most relevant to a study of settlement pattern, result from only a very small portion of the movements made by individuals and households. Most people spend the majority of their time in their usual places of residence and also move elsewhere for short periods. Most movement is task oriented and people with different interests exhibit different movement patterns. Moves made for specific tasks may become changes in usual places of residence but decision makers do not necessarily decide at the time a move is made whether or not it will.
NOTES TO CHAPTER I

1. The question of whether Melanesian, particularly Highland New Guinea, local groups are descent groups was raised by Barnes (1962). Earlier ethnologists (e.g., Hogbin and Wedgewood 1953) appear to have had little problem with the question and simply dealt with local groups as their units of analysis. Following Barnes (ibid.), however, several writers (e.g., Brown 1962, de Lepervanche 1967-68, Langness 1964, Scheffler 1963) addressed the descent group--local group issue.

By the time Ross (1973) did his work among the Baegu, Scheffler (1966) and Keesing (1965; 1971) had solved the problem by emphasizing what some earlier writers (e.g., Oliver 1955) had certainly realized. That is, the conceptual world of the people studied should be kept distinct from observable patterns of behavior (Keesing 1971:125; Scheffler 1966:54; see also Goodenough 1957; 1961; 1964). Descent concept and rules for behavior, being part of the conceptual world, should be described separately from groups which are observable phenomena.

2. The notion that what we observe in human behavior can be viewed as the results of individuals making choices rather than simply following a set of rules was emphasized by some anthropologists before "decision-making analysis" made its appearance. Leach (1961:124) is often quoted by those advocating a decision-making analysis. He notes: "social structures are sometimes best regarded as the statistical outcome of multiple individual choices rather than a direct reflection of jural rules." Firth (1963:36) also emphasizes the utility of recognizing that decisions account for observable patterns of behavior.

3. The use of retrospective data, be they life histories, residential histories or accounts of events to reconstruct observable reality, as I have attempted here, is admittedly fraught with problems of reliability. Bilmes (1975: especially pp. 65-66) outlines the possible sources of distortion and misinformation in verbal accounts. Bedford (1975:32) notes the limitations and value of using life history or life-time migrations histories for studying residence or migration.

Epstein (1967:xvii) states, however, that in his opinion "ordinary historical caution can be applied . . ." to reports of events collected from interested parties. Moreover, Chagnon (1974) used direct and indirect methods for gathering data on settlement pattern and shown that despite problems of reliability, one can achieve a high degree of consistency in reconstructing variation and change in settlement pattern over time. Through using the methods outlined in Chapter II, I was able to achieve a high degree of agreement among informants on the size, composition and distribution of settlements. I think that despite the problem of
reliability, which can be minimized through careful cross checking, the time depth gained through reconstructions allows a researcher to better understand process and change than through the use of cross sectional data (cf. Hudson 1973:131-132; Langness 1965:20-46).

4. The desirability of quantification in anthropological research is widely recognized (Pelto and Pelto 1973:279; Mitchell 1967:18). Colson (1967:6) points out that rates of population movement would be particularly useful in cross-cultural comparisons, but, she implies, few anthropologists have bothered to collect them. Chapman (1963) makes the same point with specific reference to Melanesia.

In this study I have found the quantification of settlement pattern and movement data are especially useful in describing and analyzing changes in them which occurred over time (cf. Mitchell 1967:24).

5. I do not wish to underrate the value of salvage ethnography. Much anthropological theory is based on ethnographies written about the past. It seems, however, that anthropologists have been less cautious than they should about drawing conclusions about why a particular social or cultural phenomenon is found in a colonialized area without giving equal weight to pre-colonial and post-colonial factors.

The danger of ignoring the influences of direct or indirect contact with colonials and changes which may have resulted from such contact evident in Ross's (1973) study of the Baegu of Malaita, for example, is pointed out by Keesing (1974:332). He notes that Ross takes no account of the impact of the introduction of steel and the sweet potato and the "foreign dominated mercantile system" (ibid.:332) on Baegu society.

The problem of ignoring the impact of colonialism is further compounded by cross-cultural survey researchers who use ethnographic descriptions to make correlations between cultural traits, from which they postulate relationships (sometimes causal) between social and cultural phenomena. An example of this is Murdock and Wilson's (1972) study of "Settlement Pattern and Community Organization." In their sample they include Siwai as reported in Oliver (1955). Although Oliver clearly states that the "partially nucleated" (Murdock and Wilson 1972:269) nature of Siwai settlement pattern is a post-contact innovation (Oliver 1955:15, 236-237, 470, 480), there is no mention of this in Murdock and Wilson (1972). Although there are problems of taking all factors into account when doing cross-cultural survey research and the detail of ethnographic description must be sacrificed, the fact that nucleated settlements in Siwai were a post-contact innovation would hardly seem an insignificant ethnographic detail. Siwai was only one of 186 societies used in the Murdock and Wilson (1972) study, but one cannot help but wonder in how many other cases was colonial impact ignored by either the survey researchers and/or the ethnographers.
6. As stated in Chapter II, I spent a majority of my research time in Atamo village. The village and the hamlets affiliated with it I refer to as the Atarno village area.

Although there are no Eivo or Simeku terms for "village area," informants often use what could be glossed as 'the Atamos' to refer to all individuals, both village and hamlet residents, from the Atamo area.

7. When I refer to a "decision-making analysis" or "model," I do not mean to imply that my model resembles how people actually make decisions. A decision-making analysis, as used in this study, is a set of statements which outline: (1) the contexts or situations in which people make decisions; (2) who makes decisions; (3) the range of acceptable alternative courses of action; and (4) a list of factors which seem to influence individuals to take one action as opposed to another. It might be more appropriately called an actor oriented action model because the focus is on behavior rather than what goes on in peoples' heads.

The decision-making approach used in this study is less elaborate than some (e.g., Keesing 1974) and mathematically unsophisticated compared to others (e.g., Geohegan 1969, 1970). My analysis would also be subject to criticisms leveled against Keesing (1967) and Howard (1963) by Quinn (1975:28) in that I simply list alternatives and considerations for decisions. However, given the retrospective nature of my data, it would be presumptuous to design a more elaborate model for decisions which were being made, in some cases, as long as 50 years before I collected the data.

It should be noted that there is an extensive literature in social psychology on the effects of time on informants reports on reasons for past action. For a review of this literature see Aronson, E. (1968) and Walster and Bercheid (1968) in a volume entitled Theories of Cognitive Consistency: A Source Book.

8. Residence, for the purposes of this study, is defined in terms of membership in a household. A household is defined as a group of individuals who eat food cooked on the same hearth. This definition has been used by others working in Melanesia (e.g., McArthur and Yaxley 1968:68; Bedford 1973:146).

In the course of this study I have found "usual residence" a useful concept. It is defined as where an individual resides more than half of a given time period. This designation implies residence over time is empirically verifiable and is different than de facto residence which is where a person is resident at the time of a census. It is also different from de jure residence which I define as where a person and the members of the household in which he claims membership say he resides, or could do so if he were not "temporarily absent." In a future publication I hope to compare
responses to census questions on the residence of individuals with data derived from the mobility register and show the limitations of census data for describing residential group composition.
CHAPTER II
FIELD WORK

My field work in the Eivo Census Division of Central Bougainville was part of a more comprehensive research program designed by Dr. Douglas Oliver and approved by Dr. Alexis Sarei, who was at the time District Commissioner of Bougainville. The Eivo area was one of the few non-Austronesian language areas which had not been studied and Dr. Oliver suggested I consider working there.

After obtaining permission to carry out research on Bougainville from the Papua New Guinea government, my wife and I travelled to Bougainville with a short stay in Port Moresby en route to collect archival data. On Bougainville, we spent a month in Arawa, the largest town and Provincial Headquarters, where we conferred with Papua New Guinea Administration Officials and Provincial Government staff. Without exception officials of both governments extended us hospitality and cooperation which was very gratifying. Archival materials and government records were made available to us and government officials talked freely about the Eivo area. While in Arawa, we made contact with Catholic Mission personnel and Eivo political leaders to make arrangements for selecting a field site within the Eivo Census Division.

The choice of Atamo village (see Figure 1) as a primary field site was made at a meeting arranged by Mr. Moses Havini of the (Provisional) Bougainville Provincial Government with Mr. Fabian Tonepa, President of the Eivo Local Government Council. Mr. Tonepa urged my wife and me to
Figure 1. Location Map: Central and South Bougainville
work in his village which was the largest, most centrally located village in the Census Division and the location of the Council Headquarters.

In late August, 1974, my wife and I flew to Manetai Catholic Mission where a group of Atamo villagers met us for the four hour walk to the village. We spent 20 months in Atamo and an additional month in Nasiwauwa and Kanavitu villages and at Manetai Mission gathering census and genealogical data.

Languages

Prior to our arrival on Bougainville, I was aware that the Eivo Census Division is inhabited by speakers of two languages: Eivo and Simeku. Atamo and its affiliated hamlets contain speakers of both languages. The villages north and northwest of Atamo contain Eivo speakers, the villages southeast of Atamo contain Simeku speakers. (See Chapter III, especially Figure 3.) The presence of two languages in my primary study area presented me with the prospect of learning two difficult languages and necessitated gathering cultural and linguistic data from members of two language groups.

We entered the field with a slight knowledge of Neo-Melanesian (Pidgin) and within two weeks we were able to speak comfortably in it. Fortunately almost everyone in Atamo was conversant in Pidgin: all but two of the adult men were fluent speakers; more than half the women could speak it and most could understand it. Children over the age of six and all adolescents could understand and converse in Pidgin. Despite widespread facility with the language Pidgin was not used in every day interaction among Atamo people (see Chapter III). Eivo and Simeku
speakers from village areas outside Atamo, who were generally less conversant in both languages, tended to rely more on Neo-Melanesian than Atamos, who conversed in either or both of the two study area languages. (See Chapter III.)

Learning a few simple Eivo sentence structures and enough lexemes to engage in casual conversation proved a very time consuming task. It became apparent early in my stay that I would probably never learn to speak Eivo well and would have to be satisfied with an elementary knowledge. After a year in Atamo I was able to follow the thread of conversations and speak ungrammatically on a limited number of subjects.

I began systematically learning Simeku in the last six months in the field. I found the language easier to learn than Eivo and Atamo residents said they thought this was understandable since Simeku speakers had more difficulty learning Eivo than vice-versa. I did not, however, devote sufficient time to learning Simeku to surpass my limited Eivo speaking ability. I used Neo-Melanesian in combination with Eivo and Simeku lexemes to collect a majority of the data. Although I felt frustrated by my inability to speak Eivo and Simeku well, using mostly Pidgin with some Eivo and Simeku was apparently adequate for collecting the data on which this study is based.

Participant Observation

My wife and I were observers at and occasional participants in almost all public activities which occurred during our stay. Since most of our time was spent in Atamo, most observed data were gathered there. We traveled to Nasiwauwa for a major pig prestation and, on another occasion, to conduct a census, map and gather genealogies. Considerably
more time was spent in Kanavitu village which was only seven minutes walk from Atamo. I visited all hamlets affiliated with Atamo, Kanavitu and Nasiwauwa at least once to map, conduct censuses and collect genealogies. The data on which this dissertation is based, however, were gathered in the Atamo valley which is the focus of the study.

My wife and I were anomalies to the residents of the areas in which we worked and for this reason were considered more observers than participants in most activities. We were not missionaries, planters, miners or administration officials and study area residents said we were like no other Europeans they had seen. The study area had been included in a physical anthropological survey conducted in 1966-67 by Dr. Jonathan Friedlaender of Harvard University, but explaining my work as being like Friedlaender's made little sense to the people with whom we interacted. Some Atamos said they had heard of people like me who had worked in Nasioi (Ogan, an anthropologist who is now at the University of Minnesota and Conrad Hurd, actually a linguist with the Summer Institute of Linguistics); Nagovisi (Nash and Mitchell, both anthropologists, who were students at Harvard) and Banoni (P. Lincoln, also a linguist from the University of Hawaii). They said they were unclear, however, on exactly what these people did and what resulted from their work. Some people expressed concern about what I would do with the names of their ancestors, recordings of folk tales and census data I collected. Very few of the adult population had more than a year or two of mission education and the value to them of a 'book' (dissertation) about 'customs' written in English is admittedly questionable.
Residents of the Eivo Census Division had reportedly been meeting for some years to try and 'straighten out' their culture. This effort, informants claim, was aimed at obtaining a better way of life and a higher standard of living. Their leaders had attempted to write some of the 'laws' or 'rules' for behavior prior to my arrival. This was continued while I was in Atamo as part of the work of the newly formed Village Government. Since I had explained my work as the study of rules for behavior and beliefs about man and his environment, I was viewed as part of the 'straightening process'. Despite my claims to the contrary, I think most Eivo and Simeku speakers involved in the village government are expecting me to produce a logically coherent body of law for their use. Largely because of this belief, I think informants were cautious about making definitive statements on any belief or pattern of behavior. Norms were reported but rarely without qualification or a list of exceptions. Local political leaders continually instructed their followers to tell me all they knew of traditional custom and not to lie lest their lies become recorded for all the world to read. Many points of traditional law were discussed at Village Government Assembly meetings and this provided me with an opportunity to observe "ethnoanthropology" in action. It also provided normative data from a context other than disputes and interviews.

I conducted interviews on observed behavior patterns, reported behavior and aspects of modern and pre-contact culture related to them. A majority of the interviews were with older men and women who showed greater interest in talking about 'custom' and who were considered authorities on culture and leaders in the community. Their opinions did
not always agree and there was cultural variation within and across the language group boundary.

**Cultural Variation**

Identifying cultural differences between Eivo and Simeku speakers was extremely tedious. Speakers of both languages generally talked about their cultural categories and rules for behavior as having exact equivalents in both linguistic groups. Speakers of either language who had a history of contact with members of the other language group were able to give terms for concepts and folk taxonomies in both languages. Almost all adults could understand both languages and many were comfortable speaking either language. The further one traveled from the language group boundary (Atamo) the less familiar Eivos were with the Simeku language and vice-versa. Even with data from non-border areas, however, it was difficult to identify differences in cultural categories or rules for behavior.

More easily identified were differences in patterns of behavior which were revealed in quantitative data, much of which were gathered while I was conducting censuses and collecting genealogies. Census and genealogical data, as already indicated, were gathered from Nasiwauwa (an Eivo village area) and Kanavitu (a Simeku village area) in addition to Atamo. Although Atamo is the focus of this study, data from the Kanavitu and Nasiwauwa censuses are sometimes used, where Eivo and Simeku speakers of the Atamo area exhibited differences in behavior patterns, to test the language group specificity of particular patterns. In many cases, I could find no differences in cultural categories or
differences in stated norms which would account for behavior pattern differences, and these are stated in terms of tendencies whenever they occur.

Throughout this study, the reader will be painfully aware of the problems encountered in describing and analyzing patterns of behavior and aspects of the culture of two linguistic groups in a non-comparative study. Ethnic boundaries and cultural and linguistic variation across a linguistic boundary are not the focus of this study. However, it will be necessary to note such variation where it exists and to talk of Eivo and Simeku speakers separately where they do. Where there is no evidence of cultural or behavioral differences among members of the two groups, I treat the speakers of both languages as a group and describe them as "Atamos."

Focus on Settlement and Residential Patterns

The focus on residential behavior was approached by collecting a series of data sets in different time frames using different methods. Synchronic residential data were collected through censuses. In addition to demographic and residential group composition and distribution data, data on past residential patterns were obtained through genealogies and fertility histories. As far as possible, demographic events (i.e., births, deaths and marriages) and residential changes were dated by using parish records at the Manetai Catholic Mission.² Fr. William Woeste, pastor of the Mission, gave me access to the baptismal, marriage and death registers as well as the status animarium (status of the souls—mission census). These records were invaluable as checks on my genealogies, fertility histories, and census data and for providing
accurate dates for demographic events. Baptisms were first recorded for
the Eivo Census Division just after the founding of the first mission to
serve the area in 1929. Although mission priests were faced with the
necessity of guessing the ages of adults they baptized, which resulted in
inaccurate dates for some births, child and infant baptisms resulted in
accurate birth dates being available for the majority of the population.
No death records were kept prior to 1942 and although incomplete until
the late 1960s, they were useful for dating. The status provided
additional census material for 5 Eivo village areas not covered by my
own censuses.

Systematic diachronic residential data were gathered in the form
of life-time residential histories of 50 Atamo residents. These were
gathered from at least one member of each adult sibling set resident in
Atamo at the time of my study. From these individual specific histories
and place and land tenure histories, the residential group size, com-
position and distribution of Atamo area settlements and changes in them
were reconstructed back in time to c. 1919. Changes in residence of
area households were dated by using local demographic events as time
markers. These were derived from mission records or my own dates
calculated from genealogies, reproductive histories and known local
historical events. Residential group composition and individual and
household movements were cross-checked by comparing independently
collected and dated histories.

The reliability of retrospective residential or mobility histories
is admittedly open to question. I found, however, a high degree of
agreement on the location, size and composition of residential groups
reconstructed using this method. As one might expect, informants occasionally failed to report changes in residence, but in almost all cases these involved shifts in residence of less than a year. Residential groups were, therefore, perhaps less stable and individuals more mobile than I indicate. Informants also tended to report households as comprised of nuclear families. Subsequent cross-checking and subsequent questioning sometimes revealed a higher incidence of attached kinsmen and affines present in households than was initially reported. I believe the number of inaccuracies to be minimal, although underenumeration both in number of people and number of movements probably occurred for pre- and early contact periods.

Obtaining reasons for changes in residence reported in residential histories was more of a problem than obtaining a fairly complete record of moves. The "structural principles" (Howard 1963:410) which apply to residential decision dictate that adult males make most residential decisions. Thus females, male children and adolescents were passive in most reported decisions. Informants who were females or male children at the time residential changes were made often denied knowledge of the reasons for changes in residence. They were, however, able to indicate why such decisions might have been made.

Using reasons for moves given by informants to construct models for describing and analyzing changes in residence and settlement pattern involves problems in addition to that of completeness (see Richards 1954:52-57, Bedford 1973:143-144, Bedford 1975:30, and Pryor 1975:9-21 for a review of the problems of using reported reasons for the analysis of movement behavior). Psychologists (e.g., Aronson 1968; Walster and
Bercheid 1968) have questioned the validity of using post facto reports of reasons or motivation for analyzing any decision outcome. As described in Part II of this dissertation, reasons for movement, involving both long term and short term changes in residence, were limited in number and were all reported by informants as likely explanations for peoples' behavior. In my analysis I have used reported reasons and added to them "contributing factors" which are attributes of individuals and situational factors that appear to favor movement. I have refrained, however, from presenting frequency data on reasons for moves and from constructing quantitative models for residential decisions (see note 7 to Chapter I). The problem of reliability and of the validity of using retrospective reasons for behavior are serious enough that the presentation of a more formal or quantitative model of residential decision-making would be misleading.

Diachronic data on changes in residence during my stay in Atamo were monitored for one (leap) year. This was accomplished by using a mobility register modeled on that suggested by Chapman (1975). All moves in or out of an Atamo settlement which resulted in the presence or absences of an individual for four nights duration or more were recorded. In addition to the origin and destination of moves, and the names of the individuals moving, reasons for moves given by informants (movers) were also recorded. Added to these were "contributing factors" which included unreported conditions which may have influenced an individual's decision to move. These were either reported by informants not involved in the move or postulated by me. (See also note 7, Chapter XII).
The Primary Study Area

Although I gathered data from village areas other than Atamo, this study is concerned almost entirely with the inhabitants of Atamo village and its affiliated hamlets. The territory on the western, southern, and southwestern portions of the valley now controlled almost exclusively by Atamos and inhabited by them and their ancestors is the geographical area on which this study of settlement pattern is focused (see Figure 2).

In any study which focuses on a small geographical area or a segment of a larger population, there is a question of the representativeness of the area or population studied in terms of other populations or areas in the region. While the Atamo area is an environment similar in most respects to that inhabited by other Eivo and Simeku speakers, the Atamo population is unique because it is settled on the language group boundary and is composed of speakers of two languages. The area was the first inland valley in what is now the Eivo Census Division to have an administration line village introduced and the only area to have gold mined in it. It is now the seat of the local government body for ten Eivo and Simeku villages in addition to Atamo, and has been a center of political activity for other Eivo and Simeku speakers for the last seventeen years.

While Atamo is unique in many ways, data from other Eivo and Simeku village areas indicate that the kinds of settlements in which Atamos have lived, the processes which have resulted in variation and change in settlement composition and change in settlement pattern and the bases on which residential decisions are made, are not unique. Data on settlements and movement patterns from Kanavitu and Nasiwauwa, the two villages
adjacent to Atamo, reveal that the size and composition of settlements have been similar to those found in Atamo, and the change in settlement pattern in these areas has followed a course similar to that which occurred in the Atamo area. Less comprehensive data from five additional Eivo villages give no indication that these other areas were much different.

Despite these similarities, there is variation in the settlement pattern of contemporary Eivo and Simeku village areas. Data on Atamo, Kanavitu and Nasiwauwa indicate that variations in the settlement pattern of these three areas can be attributed to the influence of differences in local political ideology and organization and the availability of education opportunities for children.
NOTES TO CHAPTER II

1. As stated later in this chapter I have focused almost exclusively on the Atamo village area in this dissertation. Census and genealogical data from Nasiwauwa and Kanavitu village areas would allow a comparison of residential patterns and other topics among the three village areas. I have chosen, however, to focus on Atamo which is the only area for which I have diachronic data.

Data from the other two areas are only partially analyzed at present. It is clear, however, that the settlement patterns of the three areas are quite different. I hope to prepare a more complete study of variation in settlement patterns in the three village areas in the future.

2. The Manetai Mission records contained demographic data on almost every man, woman and child in two Torau, one Simeku and seven Eivo village areas as well as in Atamo. In addition they contain incomplete data on another village area whose residents have broken all ties with the mission. My wife and I could discover very few inaccuracies in the Mission data and were amazed at the diligence of Fr. Woeste, pastor of the Mission, in maintaining the records. They were a rich source of both data for demographic analysis and the only source of vital statistics data for the Eivo, Simeku and Torau people the Mission served.

3. I began gathering residential histories with the intention of collecting them from every adult in the Atamo population. The process of preparing for, collecting and checking these histories, however, proved too time consuming and it was necessary to select certain individuals from whom I collected them. In some cases the process of completing one history took over nine hours.

The quality of the data in terms of internal consistency, agreement with other histories and genealogical data varied. In general, the eldest adult male of a sibling set provided the most complete and consistent history. Women were often able to provide more complete data on births and deaths within a settlement group than men. The most effective method for gathering histories was to have one male and one female from a sibling set and their spouses present at the same time.

There were three elderly men, two Eivo speakers and one Simeku speaker, who were invaluable sources of information. They not only provided the most complete data of anyone on the settlements in which they lived, but also had an amazing knowledge of the settlements of others. In some cases these three chief informants were able to recite residential histories for other Atamo residents which proved more complete than the individuals could relate themselves. Data from these three men allowed me to reconstruct residential histories for individuals no longer living in Atamo (not included in the fifty histories mentioned above).
My chief informants also took a great deal of interest in my genealogies. They would consult with other residents of the area and often report inaccuracies, in most cases omissions, in the genealogies they recited weeks before. Although I collected genealogies from all living adults in Atamo, these three men provided genealogies for individuals who did not appear among those gathered from Atamo adults.

To these men I am especially indebted and without them my data would have been less complete. In addition, their knowledge of beliefs and aspects of culture and their explanation of patterns of behavior added greatly to my understanding of what I observed, heard and recorded.

4. Genealogies, reproductive, feast and settlement histories provided checks on my residential history data and were, themselves, valuable sources of residential data. Birth places of an individual and his or her children as well as pre- and post-marital residence data were gathered in the course of collecting genealogies. Feast histories included both the place where pigs were raised, the place of presentation and the residence of major recipients. Place histories included the names of individuals known to be resident there at different times, their places of origin and their places of death. These data allowed me to construct residential histories for individuals no longer living in Atamo. In some cases I constructed preliminary residential histories from individuals from whom I subsequently collected residential histories. These preliminary histories proved amazingly complete in some cases although moves were missed. In a future publication I hope to outline in more detail the methods used in the collection of residential data and to evaluate the relative completeness of the data collected using different methods. I also hope to apply the indirect methods mentioned here to the Kanavitu and Nasiwauwa data mentioned above.
CHAPTER III
THE PEOPLE

Bougainville is the northernmost island in the Solomon Island archipelago and lies between 5 degrees and 7 degrees south in the Western Pacific Ocean. The island is politically affiliated with Papua New Guinea, a country which achieved independence in September, 1976. Bougainville had been included with New Guinea under German administration from 1899 through 1914 and under Australian administration from 1914 through mid-1976 (Oliver 1973:78-79).

Bougainville, Buka and other off-shore islands which now constitute the Province of the North Solomons have an estimated population of 106,500 (1975), the majority of which is located on Bougainville (Papua New Guinea Health Plan 1974-1978: appendix 3.10). The inhabitants of the Province speak twenty-one major languages, nineteen of which Oliver (1973:38) reports were on Bougainville in 1938-1939. Eleven are Austronesian and eight are non-Austronesian (Allen and Hurd 1963:21).

Languages of Atamo

The two languages of the Atamo area, Eivo and Simeku, are considered in the non-Austronesian Bougainville phylum, but are classified by Allen and Hurd (1963:21) as being of different "stocks," that is, they reportedly share less than 12 percent cognates (see Figure 2). Howell (1973:188-189) notes that the low percentage of shared cognates of the northern and southern stock of Bougainville languages might suggest two or more migrations to Bougainville, or great time depth and divergence through isolation, or both.

The place of origin of Eivo and Simeku speakers or other Bougainville non-Austronesian speakers is a matter for speculation since
Figure 2. Languages of Bougainville and Location of Eivo and Simeku 'line Villages' (Source: Allen and Hurd 1963 with author's corrections)
linguistic and archaeological evidence to date is insufficient to draw any conclusions. Oral tradition, in the form of sib and sub-sib migra-
tion histories, traces the origin of Eivo and Simeku speakers to the
south. Some histories begin with an in-migration to Buin, a move into
Siwai, then into Nagovisi (see Figure 20 and Chapter X).

Eivo and Simeku share only 17 percent cognates and are more closely
related to other languages than they are to each other. Eivo is most
closely related to Rotokas, with which it shares 35 percent cognates
(Allen and Hurd 1963:21). Simeku is a sub-language of Nasioi and shares
67 percent cognates with Nasioi proper (Allen and Hurd 1963:52).

As far as the current residents of Atam are concerned, both Eivo
and Simeku speakers have lived in the valley in which they now reside
since well before European contact. Although sib and sub-sib migration
histories and land tenure histories are often used to talk about the
relative antiquity of certain sibs and sub-sibs in the area, neither
language group is said to have arrived first.

Genealogies, settlement, residential and feast histories indicate
that the two language groups have intermarried, exchanged feasts and aid
and granted rights to land across the language group boundary as far back
as memory and oral tradition will go (in some cases four generations).
Prior to European contact, interaction between the two language groups
was less frequent than it is today. The increased interaction is
reflected in the settlement pattern change which has occurred since
European contact, discussed in Chapter X.

During my residence in Atam, members of both language groups inter-
acted more frequently with each other than they did with their language
group mates in other areas. There was, however, a tendency for Eivo
speakers to interact more frequently with each other than with Simeku
speakers. The same was true for Simeku speakers.
As noted in Chapter II, Eivo and Simeku speakers spoke to each other using one or both of the area languages. Most adolescents and a majority of the males under 50 years of age can speak both languages to some degree, although Atamos generally talked in their own languages (see below). In conversations between two individuals of different ages those comfortable speaking both languages generally spoke the language of older persons. In a group situation, individuals who spoke both languages used the language of the majority of the speakers. Older men and the majority of women spoke their own language most of the time. The ability of individuals to speak one language and listen to and understand another was evident not only in interaction between Eivo and Simeku speakers, but also between Eivo or Simeku speakers and Torau speakers on the coast.

Speakers of both Eivo and Simeku were aware of linguistic variation and had names for sub-groups of both languages. Eivo was said to be one language but village areas were characterized by the speed with which the residents spoke, their manner of pronunciation of certain sounds and their stress patterns. Informants claimed there were three kinds of Simeku: Awaipa, Kotuna, and Simeku. There was disagreement as to which village areas were grouped under these three headings. This was especially true of the Simeku speakers in Atamo and the residents of Kanavitu village. This disagreement appeared to be partly a function of the origins of those presenting the taxonomies.

**Demography**

1. The Distribution of Eivo and Simeku Speakers

The distribution of all Eivo and Simeku speakers in 1971 is depicted in Figure 3. Despite the increases in the size of village populations, no substantial shifts in the distribution of the population were apparent in 1974 when I arrived in Atamo. Six of the ten Eivo and four of the
Figure 3. The Relative Size of Eivo and Simeku Line Villages in 1971
(Source: Administration Censuses and 1 inch series maps)
eight Simeku census villages shown in Figure 3 are located in the Eivo Census Division. Residents of the census division, for which the most complete census data were available, constitute about 49 percent of the total Eivo and Simeku speaking population on Bougainville.6

The crude population density for the 318 square miles (823.6 km$^2$) census division was about 6.7 persons per square mile (2.58 persons per km$^2$).7 This is less than half the reported population density for the entire island in 1964 (McAlpine 1967:159). It is substantially less than the density for Siwai in 1938-1939, which was 18.6 persons per square mile (4658 persons/250 square miles reported in Oliver 1955:10). Naturally, not all land in the census division is habitable, but there are few swamps and the majority of the land is below the 600 meters (1,970 feet) above which no settlements or gardens have been located within memory. The steep slopes of ridges limit the land suitable for settlements and cash crops, but do not severely limit land available for subsistence gardens (see Chapter IV). Thus probably about half the total land in the census division is usable land and population concentrations are not a result of environmental limitations.

2. Population Growth

Although the quality of available demographic data (mission records, administration censuses and retrospective fertility histories I collected) and the small size of the population make sophisticated demographic analysis problematic, it is clear from all indications that the Atamo population in particular and the Eivo Census Division population, in general, are growing rapidly. No pre-World War II administration census data survived the war and mission records only include baptized Catholics. The earliest available administration census is for August and September,
1945, and included only Atamo, Kanavitu and Nasiwauwa (see Table 1). The pre-war population of Atamo was probably larger than the 189 residents reported in the 1945 census because of war losses reflected in the 1936 to 1950 age cohorts of the population of May, 1975 (see Figure 4). Mission death records report a substantial number of deaths for Atamo and other village areas for the years 1942 through 1946 and genealogies reveal many unrecorded deaths.

Following the war the population began recovering and since about 1960 has been expanding very rapidly (see Figure 5). Friedlaender (1975:59) reports a dramatic drop in the number of deaths and the crude death rate for his sample of Manetai Mission served villages, including Atamo, from about 20 per thousand to less than 10 per thousand over the period 1956 through 1966. This he attributes to the establishment of a malaria eradication program by the colonial administration in 1960. He further reports an increase in the number of births and a rise in the crude rate of natural increase from about 20 per thousand to approximately 50 per thousand for the same period. The June, 1972, administration census, the last in which births, deaths and migrations were recorded, reports a crude rate of natural increase of 45.2 per thousand for the census division.

The relative importance of births, deaths and migrations for changes in the Atamo population can be discerned from administration census data presented in Table 2. The data are incomplete because census data were not available for all years and since the period between the censuses varied and the size of the population is small, annual rates of natural increase and net migration for the Atamo area cannot be accurately determined. However, the contributions to population change by births, deaths
### Table 1

Study Area Populations 1945 and 1972 Compared

<table>
<thead>
<tr>
<th>Study Area</th>
<th>1945</th>
<th>1972</th>
<th>Percentage Increase 1945 to 1972</th>
</tr>
</thead>
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<tr>
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<td>1945</td>
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<td>189</td>
<td></td>
</tr>
<tr>
<td>1972</td>
<td>207.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kanavitu</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1945</td>
<td>301.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1972</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasiwauwa</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1945</td>
<td>286.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1972</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1945</td>
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<table>
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<tr>
<th>de facto</th>
<th>under 15</th>
<th>over 15</th>
<th>absentees</th>
<th>de jure</th>
<th>percentage increase 1945 to 1972</th>
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</thead>
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<tr>
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<td>M</td>
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<td>M</td>
</tr>
<tr>
<td>Atamo 1945</td>
<td>43</td>
<td>31</td>
<td>54</td>
<td>54</td>
<td>7</td>
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<tr>
<td>Atamo 1972</td>
<td>107</td>
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<td>107</td>
<td>85</td>
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<td>Kanavitu 1945</td>
<td>20</td>
<td>13</td>
<td>24</td>
<td>22</td>
<td>2</td>
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<tr>
<td>Kanavitu 1972</td>
<td>63</td>
<td>55</td>
<td>66</td>
<td>60</td>
<td>0</td>
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<tr>
<td>Nasiwauwa 1945</td>
<td>20</td>
<td>14</td>
<td>17</td>
<td>18</td>
<td>5</td>
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<tr>
<td>Nasiwauwa 1972</td>
<td>46</td>
<td>50</td>
<td>60</td>
<td>50</td>
<td>0</td>
</tr>
<tr>
<td>Study Area 1945</td>
<td>83</td>
<td>58</td>
<td>95</td>
<td>94</td>
<td>14</td>
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<td>216</td>
<td>205</td>
<td>233</td>
<td>195</td>
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</table>
Figure 4. Age Sex Distribution of the Atamo Population in May 1975
(Source: Author's Census)
Figure 5. Population Growth in Atamo and Two other Study Area Villages
(Source: Administration Censuses and Author's Census for 1975)
Table 2
The Relative Impact of Births, Deaths and Migrations on the Population Growth of Atamo and the Two Other Study Area Villages

<table>
<thead>
<tr>
<th>Census</th>
<th>Births</th>
<th>In-migrations</th>
<th>Deaths</th>
<th>Out-migrations</th>
<th>Populations</th>
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<td>1950</td>
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<td>0 0 0 0</td>
<td>0 0 0 0</td>
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<td>7 8 6 21</td>
<td>9 5 3 17</td>
<td>0 1 3 4</td>
<td>177 133 127 437</td>
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<tr>
<td>1952</td>
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<td>2 0 0 2</td>
<td>4 2 4 10</td>
<td>0 1 0 1</td>
<td>203 135 128 466</td>
</tr>
<tr>
<td>1953</td>
<td>9 5 11 25</td>
<td>0 5 0 5</td>
<td>4 5 11 20</td>
<td>21 5 4 30</td>
<td>187 135 124 446</td>
</tr>
<tr>
<td>1954*</td>
<td>5 - - -</td>
<td>7 - - -</td>
<td>10 - - -</td>
<td>7 - - -</td>
<td>181 - - -</td>
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<tr>
<td>1955</td>
<td>6 8 9 23</td>
<td>1 0 0 1</td>
<td>4 1 2 7</td>
<td>2 0 0 2</td>
<td>188 142 107 437</td>
</tr>
<tr>
<td>1959</td>
<td>11 7 8 26</td>
<td>0 0 0 0</td>
<td>9 3 2 14</td>
<td>0 1 10 11</td>
<td>196 151 131 478</td>
</tr>
<tr>
<td>1960</td>
<td>7 6 8 21</td>
<td>8 0 6 14</td>
<td>2 2 3 7</td>
<td>1 15 3 19</td>
<td>208 139 136 483</td>
</tr>
<tr>
<td>1961</td>
<td>10 9 7 26</td>
<td>11 0 0 11</td>
<td>4 3 2 9</td>
<td>0 0 0 0</td>
<td>225 147 140 512</td>
</tr>
<tr>
<td>1964</td>
<td>25 13 13 51</td>
<td>4 1 7 12</td>
<td>4 1 3 8</td>
<td>6 0 0 6</td>
<td>282 180 155 617</td>
</tr>
<tr>
<td>1965</td>
<td>18 10 9 37</td>
<td>6 2 1 9</td>
<td>2 1 0 3</td>
<td>0 6 2 8</td>
<td>304 186 163 653</td>
</tr>
<tr>
<td>1967</td>
<td>15 6 8 29</td>
<td>4 0 0 4</td>
<td>2 3 0 5</td>
<td>0 0 0 0</td>
<td>327 196 175 698</td>
</tr>
<tr>
<td>1968</td>
<td>4 14 11 29</td>
<td>4 3 2 9</td>
<td>2 2 1 5</td>
<td>0 4 0 4</td>
<td>353 206 187 746</td>
</tr>
<tr>
<td>1971</td>
<td>17 21 11 49</td>
<td>5 2 2 9</td>
<td>6 4 2 12</td>
<td>2 1 7 10</td>
<td>376 231 200 807</td>
</tr>
</tbody>
</table>

Totals 158 123 109 390 52 21 24 97 52 32 33 117 32 34 29 95

*Note: 1954 census figures available for Atamo only and were not included in the totals.

A = Atamo
K = Kanavitu
N = Nasiwauwa
T = Total
and migrations can be estimated by adding the figures for the years reported (see Table 2). Births accounted for about 75 percent of the reported population increases while in-migrations contributed only about 25 percent. The net migration into Atamo over the 20 year period was only 20.

3. Significance of Demographic Findings

The low population density of the Atamo area prior to European contact may have been a major factor contributing to fluctuations in the size of households, settlements and the distribution of the population of the entire area. The population was land rich and labor poor in terms of the labor demands of group activities, particularly feasting (see Chapter IX). Population concentrations were advantageous to political leaders who organized these activities. Individuals could gain rights to land in a number of locales and leaders gave rights to land to encourage people to join their settlements (see Chapters VII and VIII).

With the population increasing at a rate greater than any other Province in Papua New Guinea (Oliver 1973:185) and most other populations in the world, the land is likely to become scarce in the future. Although people are becoming more concerned about the availability of land, in part because of the population increase and in part because of recent increases in cash crop plantings, the population increase has had little effect on variation and change in settlement pattern to date. It will however become increasingly important in the future.
NOTES TO CHAPTER III

1. As stated in the text, Eivo and Simeku share 17 percent cognates. A stock is defined by Allen and Hurd (1963:19) as languages sharing between 12 and 28 percent cognates. The two study area languages can, however, still be said to be of different stocks. Simeku, as noted, is a sub-language of Nasioi and Eivo and Nasioi share less than 12 percent cognates. As Allen and Hurd (1963:2) note, border area languages tend to display common features and thus it is not possible to adhere to definitions in determining the relationships between languages.

2. Friedlaender (1975:50) estimates that Eivo and Simeku share 42 percent cognates. This he estimates from shared cognate percentages for Eivo and Nasioi of which Simeku is a sub-language. As noted, Nasioi and Simeku share 67 percent cognates. The 17 percent shared cognates for Simeku and Eivo reported in the text is based on a cognate count of the two languages spoken in Atamo using a standard two hundred word list from Samarin (1967:220-223) and Neo-Melanesian as a contact language.

3. Friedlaender (1975:49) reports 'Uruto', a name applied to the Simeku end of Atamo village, as an Eivo village. Although all of Atamo is now located on land belonging to Eivo speakers, the majority of 'Uruto' residents speak Simeku and it is considered to be a Simeku settlement (or sub-settlement) both by its inhabitants and other Eivo and Simeku speakers. It should also be noted that Allen and Hurd (1963:50) list Atamo as an Eivo village and report population figures based on Administration censuses. They do not list Uruto, which at the time of their survey was a separate settlement located around 200 yards from Atamo, as a Simeku settlement.

4. The ability of individuals to speak one language in a conversation while listening to, understanding and responding to another has been observed elsewhere on Bougainville. Lincoln (1975:39) terms this phenomena "dual lingualism" and reports that it may be very widespread throughout Melanesia (1975:42).

Dual lingual speech behavior was observed to occur in a variety of circumstances. Even where husbands and wives were from different language groups and neither had regular contact with his or her spouses language group as children, each usually spoke their own language. This ability may be one explanation for the maintenance of a low percentage of shared cognates in the two languages of Atamo.

Informants report that children are more frequently 'mixing' languages today than they did in the past. Atamos claim that since Eivo and Simeku children began attending the same school in the early 1950s, they have been using lexemes and structures from both languages almost indiscriminately. In the past, informants claim, there were relatively few settlements containing speakers of both
languages and only a small percentage of the population lived in such settlements. In the past, informants report, children rarely had contact with anyone but their settlement group mates and close neighbors. This relatively limited contact among members of the two language groups, its restriction to adults and dual lingualism may explain why the languages have remained so distinct despite contact among the two groups for many years.

5. In collecting lexemes for a cognate count, I found Simeku informants from Atamo and Kanavitu (only seven minutes walk from Atamo) using different lexemes for the same referents. Some of these were cognate, others were not. I also found informants from Atamo and Kopani (6 miles northeast of Atamo) using different lexemes for the same referents. Informants were aware of these linguistic variations and attributed them either to borrowing or simple lexical variation. I suspect there is more linguistic variation in Eivo and Simeku than linguistic survey data would reveal. I also suspect that language group boundaries were fluid in the past and did not necessarily coincide with interaction boundaries. There is, however, evidence presented in Chapter X and Chapter XI that there were relatively few individual and household changes in residence which entailed movement across the Eivo and Simeku boundary just prior to contact.

6. All census figures reported in this dissertation were obtained from patrol reports for Kieta Sub-Province (then Kieta Sub-district) and are available at the Provincial Archives in Arawa, Bougainville. Papua New Guinea government officers admitted that patrol censuses were often inaccurate. The procedure for conducting censuses varied over time and definitions of "migration," "change in residence" and "present at the time of the census" were left up to the officer conducting the censuses. Until around 1965, when Local Government Council tax and election rolls were established, the Village Book served as the census roster for each census village. Villagers were reportedly required to be present when Administration Patrols made their appearance. Prior to the war, villagers claim they were punished by police if they were not present unless they were absent for wage labor, school or medical care. Informants and Provincial (then District) Administration Officers report that the general procedure for conducting censuses was as follows: (1) the headman called names from the Village Book; (2) when no one responded to a name called, the patrol officer asked the headman to explain the absence; (3) deaths and out-migrations were also noted when the roll was called; (4) births and in-migrations were reported to the patrol officer by the headman or his secretary. Births and in-migrations were reportedly missed on occasion and therefore there was a tendency for under-enumeration.

Manetai Mission records, especially birth records compiled after the war, are probably more accurate than administration censuses. Administration records have been used to obtain data for this
dissertation because they provide village population totals, in-migrations, out-migrations as well as births and deaths, which are also provided in mission records.

Friedlaender (1975:58-69) presents an analysis of population data based on Manetai and Tunuru Mission records. Although the three study area villages (Atamo, Kanavitu and Nasiwauwa) constitute about 46 percent of the total population served by Manetai, Friedlaender does not present village specific figures which would allow use of data on the study area villages only. Village specific data are, however, provided in Administration censuses. The three study area villages constitute approximately 40 percent of the Eivo Census Division population. I have used some of Friedlaender's (1975) data and drawn on my own census data collected in the field. The figures derived from the three sources I used, Administration censuses, Friedlaender (1975) and my censuses, are only crudely comparable. The methods of enumeration, the completeness and the definitions employed vary. I hope to examine the degree of completeness which can be obtained through using these various sources for demographic data by comparing them with population reconstructions based on genealogical data and residential histories in a future publication.

7. The area of the census division was reported in the 1960 Village Directory, Territory of Papua New Guinea. Population figures used to calculate population density were reported in the Administration Census Report in Patrol Report No. 12, 1971-1972, Kieta, Sub-Province.

8. As noted above Papua New Guinea became an independent country in September, 1975. Prior to independence "District" was the term applied to administration units of which Bougainville, Bulca and several smaller islands are on. After independence the term "Province" replaced the term "District." Throughout this dissertation "Province" is used instead of "District."
CHAPTER IV

PHYSICAL ENVIRONMENT, SUBSISTENCE,
SHELTER AND CASH CROPS

Physical Environment

The Atamo valley is a warm tropical environment with mostly sunny days and cool nights (see Figure 6). The climate is equable throughout the year with temperatures ranging from a mean minimum of 21.5°C (68.8°F) and a mean maximum of 30.0°C (86.0°F).\(^1\) Monthly rainfall during 14 months of my stay ranged from 159 mm (6.3 inches) to 478 mm (18.8 inches) with a mean of 288 mm (11.35 inches). Occasional heavy rains flooded rivers which restricted travel and caused landslides.

Atamo, like most other Eivo and Simeku village areas, is located in an inland valley in an environment classified by Heyliger (1967: plate) as "lower mountain." Atamo occupies the eastern half of a valley, which it shares with Kanavitu, formed by the Crown Prince Range to the south and two major ridges running north towards the coast. It is separated from the area occupied by Kanavitu by a ridge running down the center of the valley. Both halves of the valley are dominated by major rivers which join just north of Atamo 'town', the major settlement for Atamos, to form the Alakabu river. The rivers are surrounded by "random" ridges interspersed with small streams.

Prior to contact, most habitation sites were located on ridges tops at altitudes between 200 meters (650 feet) and 600 meters (1,968 feet).\(^2\) Although locating settlements in such areas may have been adaptive for
Figure 6. The Topography and Boundaries of Atamo and Two Neighboring Village Areas (Source: Kieta 1 inch series)
30 and Two Neighboring series)
defense reasons, informants claim they built their settlements where their ancestors did.

After European contact, settlements were gradually moved to lower altitudes nearer large streams and rivers. By the time I entered the field, only one usually inhabited settlement in the Atamo area was located in a pre-contact settlement area. The majority of the area's residents were living in a single large settlement, Atamo 'town', at an altitude of 80 meters (260 feet).

The range and higher ridges may have imposed some limitations on communication between village areas prior to contact. During my stay in Atamo, however, almost all traveling was still done on foot and individuals traveled to other village areas to visit kinsmen, attend funerals, harvest and purchase almonds and for other reasons. Most travel was, however, either within the Atamo area or towards the coast over relatively flat land.

The steep slopes and brown loamy soils with lapallitic horizons which make up the majority of the area provide good drainage but soil erosion reportedly places limitations on the possible commercial value of much of the land (Scott 1967:73). Subsistence gardens were and are located on slopes of up to about 35 degrees. Cash crops, however, are usually not planted in such areas. Coconuts have generally been planted on former settlement sites and cocoa trees have been cultivated on alluvial land near rivers and large streams.

Subsistence Agriculture

Atamos practice a form of shifting cultivation similar to that of other indigenes on Bougainville (Oliver 1955:22-26 on Siwau; Nash 1974:7
and Mitchell 1976 on Nagovisi; and Ogan 1972:23-26 on Nasioi). Prior to World War II, taro (Colocasia) was the principal root crop and constituted the bulk of the diet. Other crops, not known to be post-contact introductions, such as plantains and yams, were also cultivated. Informants claim most gardens were mixed, the only common exception being yam gardens planted for pig prestations.

Fallow periods for taro were reportedly deemed sufficient when scrub bush and grass died under secondary growth trees. Although fallow periods may have varied and decreased since the war, the fallow for several garden areas under cultivation at the time of my field work were reportedly as long as twenty-five years.

Sweet potato, a variety of which was introduced prior to European contact, has supplanted taro as the principal root crop after World War II when a taro disease, probably the blight (phytophthora colocasiae) described by Packard, resulted in a decline in production. Informants claim sweet potato, unlike taro, requires no magic for its propagation, may yield more than one crop from a single plot, and requires only a short fallow.

Informants claim that prior to the war most gardens were fenced. Following the war, fencing was almost entirely abandoned. Informants claim this probably resulted because sweet potato was so easy to grow and it required less labor to plant several gardens than to fence one. During my 22 months in the area I saw only two gardens fenced and these were located in areas in which pig hamlets were located.

Prior to the introduction of steel, Eivo and Simeku speakers had few tools. Basalt adzes and wooden digging sticks were reportedly the
basic tools used for subsistence agriculture. Given the quality of the soil and the practice of fallowing until undergrowth died, little else was needed.

Steel was first obtained by Atamos through indirect trade with Nagovisi and direct trade with Torau speakers. Living Eivo and Simeku speakers, the oldest of whom was born around 1898, claim there is no one alive who saw stone tools used. I would hazard a guess that by 1900 steel axes and knives were in common use and few, if any, stone tools were used after that time. The impact of steel on agricultural practices was probably similar to that described for other areas in Melanesia (see Salisbury 1962 and Townshand 1969). It probably reduced the amount of labor necessary for subsistence, especially for men who generally only cleared the land and built fences.

The reduction in the labor necessary for subsistence which resulted from the introduction of steel, the shift from taro to sweet potatoes as a staple crop, and the elimination of fencing as an integral part of gardening provided Atamos, especially males, with time they could invest in the production of food surpluses or other pursuits. Even prior to contact, this may have resulted in a proliferation of feasting activities which, as shown below, tended to result in a consolidation of settlement groups. In more recent years, time saved in subsistence has allowed individuals more time to devote to modern religious and political activities. These, in turn, have also tended to bring people together into larger settlements. Cash cropping, another activity to which people have devoted increasing amounts of time, has tended to disperse people and, occasionally, resulted in the establishment of small scattered settlements.
Pre- and early contact agricultural practices rarely necessitated changes in residence. Most gardens were reportedly within about a half mile of settlements and there was rarely a need for people to remain away from their usual places of residence more than one night. Some Atamos, informants claim, had garden houses which were occupied when bush was being cleared and fences were being constructed for new gardens. However, in all the data on more permanent changes in individual and household residence, I found only four instances in which households were reported as having moved to establish gardens or to be nearer existing gardens. Informants claim this was rarely necessary and that they could think of few circumstances in which this would be an important consideration in deciding when to move a settlement. This, they claim, is true today as it was in the past.

A change which has apparently taken place since contact has been an increase in the house to garden distance of area residents. House to garden distances in 1975 for 120 gardens averaged 2.3 kilometers (1.4 miles) with the mean distance for nearest gardens (64 gardens) being 1.4 kilometers (.8 miles). Those living in small scattered hamlets (14 households) had 50 percent of their gardens within .6 kilometers (.4 miles) and 75 percent of their gardens within 1.4 kilometers (.9 miles) of their usual places of residence. Those living in Atamo 'town' (50 households), on the other hand had 50 percent of their gardens within 1.7 kilometers (1.1 miles) and 75 percent of their gardens within 2.3 kilometers (1.4 miles). Those living in the larger settlement, either consider the increased distance insignificant or have apparently found benefits from living in 'town' which outweigh the price of increased
house to garden distances (see Brookfield and Hart 1971:225-227 for a discussion of the costs and benefits of nucleated settlements in Melanesia with special attention to house to garden distance).

Hunting and Gathering

Although Atamos obtain the bulk of their diet from horticulture and reportedly always have done so, they also hunt and gather. Aside from the gathering of greens, fungi, river shrimp (crayfish) and small fish for domestic consumption, most hunting and gathering is done for pig prestations and rituals associated with crops, domestic pigs, or rites of passage.

The most important gathered food in terms of the amount consumed and time spent in ritual and gathering was and is canarium almonds. New almonds appear in July and August and rituals associated with their appearance take some people away from their usual places of residence for several days. Harvests, generally during September, October, and November, sometimes result in shifts in residence to almond areas for periods up to a month or two. During my stay in Atamo some individuals traveled to harvest almond trees at distances of up to 15.3 kilometers (9.5 miles) from their usual place of residence. In most cases, long term shifts in residence over long distances were made by either sponsors of or major contributors to pig prestations. A dispersal of the population during almond seasons and a re-grouping after the season is over, which I observed during two crop cycles while I was resident in Atamo, was reportedly characteristic of pre- and early contact times as well. Informants claim it was even more dramatic in the past, when
individuals were less concerned with modern religious and political activities and cash crops and spent most of their time gardening and feasting.

Hunting, also usually done for feasts, sometimes results in temporary shifts in residence. Wild pigs and opossum are the most widely hunted and successfully procured animals. Although both animals are available year round, the concentration of feasts after the almond seasons results in most hunting being concentrated in December and January—the two months prior to the presentation of most feasts.

**Pig Husbandry**

Pig husbandry is politically and ritually more important than hunting. Pigs are raised for major pig prestations which are the focus of most ritual activity and the medium through which men compete for 'renown' (see Chapter VIII for a description of the importance of 'renown' and feasting in political organization). 'Strong' pig magic, performing crop rituals and the aid of benign spirits are said to be necessary for successful pig raising.

Most households raise pigs, although the number of pigs a household owns may vary, depending on the ability of householders in pig husbandry, the ambitiousness of the head of household in competing for 'renown' and the point in the ritual cycle at which pigs are counted. At the time of my pig census, February 1, 1976, Atamos claimed 131 pigs, or an average of 2.1 pigs per household. Thirty-five households (54.7 percent) had pigs at the time, which was an average of 3.7 pigs per household for those with pigs. The most pigs were owned by a man preparing for a major pig prestation and they numbered 13, which were all kept in a hamlet.
Atamos claim the techniques used in pig raising have changed little since pre-contact times. Prior to contact no attempt was made to fence pigs. They foraged most of the day and returned to hamlets at night where they were usually fed scraps, but occasionally food was especially cooked for them. At first, almond rituals and, when owners felt the pigs were not growing well, pig magic was performed to make the pigs' meat firm, to make them grow quickly, and to cure their ills. Should illness or misfortune befall an individual's pigs, or should they run away and not return to the hamlet, this was reportedly interpreted as an indication that an obligation had been neglected or a wrong committed.

In pre- and early contact times, pig husbandry was an important consideration in deciding where to live and when to change one's settlement. Some settlement sites were known to be 'strong' in that pigs consistently grew well in them and such places were inhabited continuously or repeatedly by feast givers. Occasionally new hamlets were established in order that pigs would do well if there was some indication that misfortune was imminent. If pigs were not growing well in a particular area, or if they were not returning to the hamlet at night and pig magic could not rectify the situation, informants claim that the settlement was abandoned and a new one established. Informants claim some moves were necessary because the areas surrounding settlements were over-foraged.

When villages were established by administration officials, people continued to raise pigs in hamlets. Informants report that pigs were not permitted in the village and that patrol officers admonished village officials when pigs were present at the time of administration censuses.
As the village became the focus of modern religious and political activity, they became population centers. As feasts came to be presented in the village, people resided in hamlets only to raise pigs for feasts, and moved into the village to present them. When the 'town', the large focal settlement for the entire Atamo area, was built, a pig fence was strung just outside the settlement, and modern political leaders encouraged people to keep their pigs within the fence. After a decline in the number of pig hamlets for about two years, during which most pigs were kept in the 'town' pen, pig hamlets began to reappear. At the time of my pig count, over 52 percent of the pigs were kept in 12 hamlets whereas only 21.8 percent of the area households resided in such small settlements. The rest were usually resident in the town, where only 48 percent of the pigs were kept.

**Cash Crops**

1. Coconuts

Prior to World War II, Atamos had few coconut palms and the nuts were reportedly reserved almost entirely for domestic consumption. Trees planted prior to the war were estimated by the Department of Agriculture, Stocks and Fisheries (D.A.S.F.) to number about 230 (Patrol Report No. 2, 1962-1963). By 1962, the number of trees had risen to 4,193, over 56 percent of which had been planted in the 1950s. By 1972, crop censuses reported 8,537 palms in the Atamo area (Indigenous Agricultural Statistics, 1972).

Most coconut plantations established in the 1950s and 1960s were on former settlement sites. Informants claim they generally planted on land to which they or members of their households held fairly secure title.
In the 1950s, households began establishing plantation hamlets which served as usual or occasional places of residence. These were generally founded and inhabited only while bush was being cut and nuts were being planted. After trees came to fruit, copra dryers were sometimes built and used as occasional residences during harvests.

Despite the low price of copra during my stay in Atamo in comparison to both prices in earlier years and in comparison to cocoa, Atamos continued to harvest copra and plant palms. Informants claim they prefer copra to cocoa as a cash crop because it requires neither technical skill for processing nor equipment, which must be purchased to build dryers.

2. Cocoa

Cocoa was first introduced into the Atamo area in the early 1960s (Patrol Report No. 10, 1962-1963). It was at first rejected as a cash crop because Atamos reportedly feared it would necessitate their joining the Local Government Council System, which, for reasons outlined below (Chapter IV), they did not want. By 1966, after Atamos had joined a council, cocoa trees were planted.

By 1972, cocoa holdings for Atamos reportedly contained 10,888 trees and ranged in size from less than a hundred to over 3,800 for one household (D.A.S.F. Crop Census 27 September, 1972). By 1974, 60 of the 64 households in Atamo had at least one cocoa plot with a mean of 1.2 plots per household.

Cocoa, unlike coconuts, has generally been planted on alluvial land near rivers and large streams. At first, land tenure was reportedly only a minor consideration in decisions on where to plant and most holdings
were near Atamo town. Since around 1972, when cocoa trees began to bear, however, both land managers and cash croppers have favored planting on land to which individuals hold secure title. In most cases, this has meant that individuals have had to establish their plantations at greater distances from their usual places of residence than the original plantings.

As with copra, households have established cocoa plantation hamlets which have served as usual or occasional residences. These have been few in the past but they may become more prevalent in the future. Cocoa, unlike coconuts, requires fairly regular attention: the ground under trees must be kept cleared and, according to Atamos, fruit must be harvested if trees are to continue to bear. Processing may take up to a week, and during my stay in Atamo harvests were averaging one every month or month and a half. Although processing was originally done by two Atamo men who generally bought unprocessed beans and sold the processed beans themselves, there were an increasing number of individuals starting their own fermentaries during my stay in Atamo. Given the amount of time necessary for the care of cocoa plantations, the amount of time required to process beans and the distances to some plantations, it is understandable that a number of individuals living in Atamo were either talking about, or in the process of, establishing plantation hamlets.

Shelter

Prior to European contact, informants claim, Atamos built two general types of shelters: pole houses and 'ground houses'. Both types had sago thatch roofs and sides. Pole houses had split sago or
areca-like palm floors set on log piles of from two to four feet in length. This type of house, although it reportedly required more labor than 'ground' houses, was more suited to the uneven terrain of former settlement areas. Ground houses, as the name implies, were built directly on the ground.

'Ground houses' were, in most cases, first constructed as feast houses in which slit gongs were stored, food was cooked and stored and in which guests sat at feasts. Feast houses consisted of a roof and low bamboo walls. Prior to and after feasts, thatch sheaves were added as walls and the houses served as usual or occasional residences.

Some 'ground houses', however, were simply lean-tos converted into more permanent structures after they were initially inhabited. These could be built with an initial labor investment of less than a week, but like other houses, could be added to over a period of years.

Domiciles initially constructed as more permanent residences were and are built with varying speed and labor investment. The gathering of materials may take from a few weeks to several months. Actual construction may be completed in about two weeks or may last as long as nine months. Although most structures are built by the householders intending to inhabit them, some are built by work crews of up to ten men and are completed in a relatively short time.

Houses built in the pre-contact style reportedly last about three years before they require major repairs or replacement. Some last as long as six years but rough calculations on houses standing in Atamo at the time of my census indicate that houses are replaced about every four to five years. When houses need replacing, households often shift their residence to another location although they may only move a few feet.
Since European contact some changes have taken place in house construction. Woven split bamboo walls were introduced from another language area on Bougainville and these are said to be more durable than thatch sheaves. Nails are now used to join poles and secure floors but vines are still used to attach thatch sheaves. Steel tools undoubtedly made house construction easier, which may have resulted in an increase in the number of houses owned by a household.

Prior to contact, some households reportedly had more than one house in which they spent time. When the line village was introduced, the number of houses in the area probably increased. Households whose members were on the administration census rolls, were strongly encouraged by patrol officers to build a pole house in the line village. Prior to World War II, such households generally had both a village and a line house. As more people became (usually) resident in the village, the number of houses declined, but multiple residences still remain a feature of the Atamo settlement pattern. At the time of my census in Atamo, over 50 percent of the resident households had more than one house. Over 40 percent had houses in more than one settlement and 14 percent had more than one house in their usual place of residence.

The labor demands of house construction, as already mentioned, makes owning more than one house feasible. Most houses in Atamo at the time of my census were, however, more than simple lean-tos. Atamos are apparently committed enough to multiple residences for a significant number of households to build and maintain more than one reasonably permanent house.
NOTES TO CHAPTER IV

1. Weather observations were made in Atamo over a fourteen month period from March 1, 1975 through April 30, 1976.


3. Distance measurements presented in this dissertation have been made using the following maps: Papua New Guinea administration maps, the "Bougainville and Buka" one and two miles to the inch series; Royal Australian Survey Crops, 1967 edition 1 AMS (scale 1:50,000) prepared by the 30th Engineer Battalion (Base Troop) of the Australian Army; and maps drawn in the field using magnetic compass triangulations with the Survey Corps maps as base maps. All maps contain errors (including my own) and all measurements are therefore approximations.

4. Almond yields for the two seasons I observed varied considerably. Informants claim there is a two year cycle for each tree. Because trees, some of which are up to 80 feet in height, are harvested by breaking off the ends of branches bearing clusters of almonds, a year for regrowth is required. During my first season in Atamo, more individuals were involved in harvesting and preserving almonds than during the second season. Informants noted that the second season's crop was particularly small and that this had occurred in the past.

Yields per tree also varied: one 'large' tree bore an estimated 48 kilograms of shelled almonds (107 pounds); a 'small' tree yielded an estimated 9.1 kilograms (20 pounds) of shelled nuts.

A large tree can be harvested by two men working around six hours. Shelling the nuts, first by removing the soft outer skin and then cracking the hard inner shell, is more time consuming than harvesting the nuts. I observed one man shelling nuts for about two hours, producing about 5 kilograms (11 pounds).

One household harvested, shelled and smoked a total of about 123 kilograms (270 pounds) in a single season for a feast. This was said to be an average harvest for a household involved in sponsoring a pig feast.

5. The longest hunting expedition made during my stay involved a widower and his three sons who spent a total of 39 days at a copra smoke house about 8.5 kilometers north of Atamo. They were joined for a brief period by others and for a total of 174 man-days they brought back 62 opossum.
6. Although I did not weigh food given to pigs, I would estimate that most pigs were given much less than the 2.7 kilograms (6 pounds) of food per day reported by Oliver (1955:32) in Siwai. Informants said that pigs must be given some food lest they run wild and not return to the settlement at night. During World War II, however, when most Atamo residents were absent from their hamlets for over six months, pigs were found returning to uninhabited hamlets when their owners returned after the war.

7. Both copra and cocoa are marketed in or near Kieta. Copra is sold to the Copra Marketing Board and cocoa is sold to independent buyers. Prices for both crops fluctuate with world market prices. During my stay, copra prices remained less than K160.00 per metric ton. Cocoa prices ranged from K630 to K1500 per ton.

Two cash crop sales, one copra and one cocoa, by the same man during the same month illustrate the difference in incomes and expenditures from the two cash crops. During October, 1975 copra was selling for K142.00 per ton. Cocoa was selling for K845.00 per ton. The two sales, each of 14 bags, incurred about the same transportation costs (Mission tractor and boat from Vito, the Torau village northeast of Manetai, to Kieta). The net income from the copra was K75.00; that from cacao was K690.00. Both crops had to be carried to Manetai and both took about the same amount of time to harvest and process.
CHAPTER V

CONTACT HISTORY

Torau Intrusion

Prior to contact between Europeans and Atamos, Torau speakers, originally from the Shortland Islands, settled on the coast north of Atamo at Vito. The Torau had reportedly been at Rorovana for some time when they extended their settlements north to Tarara and then to Vito (see Figure 7). There are several versions of how Toraus acquired the land at Vito but most Atamos claim they simply moved in.

Atamos claim relations with Toraus were not very amicable in pre- and early European contact times. Toraus were reportedly fierce fighters and made demands of pigs and women for which inlanders received nothing in return. Atamos did, however, trade with Toraus for clay pots, made at Rorovana, and steel which Toraus obtained from Europeans.

Atamos reportedly never had settlements on the coast but occasionally traveled there for salt and to gather shell to make betel nut lime. There were, however, settlements nearer the coast prior to Torau intrusion than there were after it. Although no informants were able to state why these areas were not inhabited at the time of contact, some suggested that it was possible Atamos moved farther inland to avoid conflict with Torau speakers.
Figure 7. Location Map: Central and South Bougainville
European Contact: The Pre-war Period

1. Initial Contact and the Establishment of Administration "Control"

Torau speakers reportedly aided the Australian administration in establishing "control" of Atamo and other Eivo and Simeku speaking areas. Evidence from different sources suggest initial European contact dates ranging from pre-1914 through 1936. Genealogical data suggest, rather consistently, that initial contact occurred about 1920.

An administration census village, called a 'line', was established around 1920 on the beach at Alakabau about six miles northeast of Atamo (see Figure 7). Some "residents" of the 'line' were from north of Atamo, but the majority were reportedly from what is now the Nasiwauwa area. How residents were recruited to the Alakabau line is unclear. However, informants report that a punitive expedition, sent to two Atamo area settlements in c. 1921 was intended to convince "residents" of Alakabau living there that they should report for censuses and government work projects.

The first 'line' in the Atamo valley was established about 1925. Two men who had been away working on European plantations returned to the valley and began constructing a 'line' village at Kuauto. (See Figure 19 in Chapter X).

Informants report that these two men, who had been appointed village officials by the colonial administration before their return to Atamo, recruited residents to the line by instilling fear in those living near the Kuauto line site. They reportedly told stories of the awesome white men and police who would come to make sure everyone had houses in the village.
In the late 1920s and early 1930s administration patrols increased in frequency as did the number of Atamo households with houses in the 'line'. Despite the increase in houses, the number of households usually resident in the 'line' remained small until after World War II.

In c. 1938 a Simeku man who had left the area for wage employment returned to the Atamo area and convinced Simeku speakers they should have their own village type settlement. Although it is unclear whether this 'half line' was ever recognized by the colonial administration as a place where people might have their 'line residence', most Simeku speakers reportedly abandoned their houses in the line and built houses in the 'half line'.

2. Mission Activity

The first missionary to reach the Atamo valley was Fr. Emmet McHardy, S.M., who began touring Atamo and other Eivo areas to the north in 1929 (McHardy 1935). Initially visits were no more frequent than once a year but increased in frequency in the late 1930s and early 1940s.

The first baptisms were performed in March, 1931 and by 1936 there were at least two Atamo area boys in school at Tunuru Mission (Manetai and Tunuru Baptismal registers; see Figure 7). The boys spent about two years at school and then returned to Atamo and began teaching catechism and holding services. As more people were baptized, as pastoral visits increased and as catechists began holding regular services, more people began spending more time in the line and half line.
3. Wage Employment

As already noted, the first men left the Atamo area to seek wage employment even before sustained contact existed between Atamos and the colonial administration. After the first men returned from working on expatriate plantations and established the 'line', more left. Many went to work on copra plantations in the Kieta area or on the northeast coast of Bougainville. Some went to work for the government as road builders and traveled to Rabaul and other parts of New Guinea. Others took up employment at the Kupei mine, which was located near Panguna, the site of Bougainville Copper Ltd. mine today. Some men served as contract laborers and stayed away for two or more years while others worked as casual laborers for several months at a time.

Around 1940, a small gold mine was established by expatriates near the present site of Kanavitu village, about twenty minutes walk from the Atamo line. A dozen or more Atamo men worked there. Unlike the other wage labor opportunities open to Atamos prior to the war, the Atamo mine kept young men in the area. It did, however, have much the same effect as other sources of wage employment on settlement pattern.

Wage employment, both short term casual labor and long term contract, resulted in a reduction in the number of males in the population. Most of those leaving for employment were young men between the ages of 16 and 25 years. Many of them would otherwise have married during the years they were employed and their absence served to reduce the rate of, or postpone, the formation of new households. These young men would otherwise also have been providing labor for pig prestations for established feast givers or would have begun careers as feast givers.
themselves. The effective reduction in the formation of new households, the labor available for feasts and the number of potential feast givers probably contributed to the decline of large hamlets and may have contributed to the growth of the line village (see Chapter XI).

The War Years

The Japanese takeover of the administration of Bougainville in March, 1942 seems hardly to have been noticed by Atamos at first. Even the establishment of camps on the beach, northeast of Atamo, by Japanese military forces reportedly did not result in frequent interaction between the new colonials and Atamos.

In January, 1943, however, the situation changed. Francais Roche, one of the men who had established the gold mine in the Atamo area, was discovered hiding near the Atamo line by soldiers from the beach. Roche was apprehended and killed.

After his death, Atamos were ordered to establish a village on the beach near the Japanese camp. Almost the entire population moved to the beach where adult men served as laborers for the Japanese. In late 1943, the beach village was attacked by aircraft and Atamos returned to their valley where they reportedly hid in small scattered settlements.

In late 1944, Atamos were contacted by Australian New Guinea Administrative Unit patrols and encouraged to move to Torokina where American forces had established a beachhead and a refugee camp for Bougainvillians.

In March, 1945, Atamos were repatriated to their area and by mid-1946 the disruptive effects of the war on every day life had subsided. The war had, however, made an impact on the way Atamos viewed themselves
in relation to Europeans and their material wealth. After experiencing the most intense contact they had ever had with foreigners, both Japanese and European, and being exposed to greater quantities of material goods than they had ever seen before, it is little wonder that their ideas changed. Their war experiences reportedly played an important part in the development of cargo cult and modern political ideologies in the 1950s. These ideologies and the activities associated with them served to increase the importance of the line as a focus of activities and as a population center.

The Post-war Period

1. The Colonial Administration and Local Political Development

   After the war, administration patrolling was resumed but patrols were more frequent than prior to the war. At least initially, they appear to have had the same purpose: to conduct censuses, and to see that housing and sanitary facilities were up to administration standards. In the early 1960s, there was an increase in the number of patrols as attention was shifted to the encouragement of cash crops, malaria eradication and the introduction of the Local Government Council System. 5

   Village officials remained the administration's representatives in the village until Atamo joined a Local Government Council in 1965. The Council System was initially rejected, but by 1963 sufficient people were in favor of it that they voted to join (Patrol Report No. 10 1962-63). 6 Atamo became one of six Eivo and Simeku villages to be represented in the Kieta Local Government Council. By 1969, Atamos and other Eivo and Simeku speakers were disillusioned with the Kieta Council and by 1972 they had convinced the administration to establish an Eivo
Council (Kieta Local Government Council Annual Report 1971-1972). The Eivo Council first convened in 1973 at Atamo, where its chambers had been constructed, but by mid-1974 the Council had ceased to function.

The Eivo Local Government Council was supplanted by the Eivo Village Government Assembly. The Assembly was an outgrowth of a grassroots political movement centered in Atamo which originally started in 1963. This movement sponsored public works projects, collected funds and held meetings to discuss economic development, traditional custom and political organization. The movement's ideology encouraged cooperative work projects and village residence. Its activities were centered in Atamo village and this too served to attract people to that settlement.

2. Mission Activities

Following the war, mission activities and local interest in them grew at a rapid rate. Some informants claim that their experience at the refugee camp during the war convinced them that if bad experiences like the war were to be avoided and if people were to achieve a standard of living like Europeans, they should become good Christians. Chapels were built in the line and half-line, and in 1950 a school was established for the children of residents of those settlements. In the 1950s and 1960s daily services were held in the village and those attending school and services tended to remain in the village while others, more interested in pig raising, remained in scattered hamlets.

Manetai Mission School was rebuilt in 1953 and increasing numbers of children and adolescents went there in the late 1950s and in the 1960s. When the mission established a school in Atamo in the early 1970s, the number of children attending Manetai school dropped off and by 1975 there
were no Atamo children attending Manetai Primary School. In 1976, 84.7 percent of the 111 school-aged children were attending Atamo Primary School. As described below, households with children in school tended to remain in the village more than those without.

Health services were provided by the mission both before and after the war. In 1965, however, a sub-health center was established at Manetai and pre-natal, maternity and pediatric services were incorporated into its program. In 1968, 15 of 17 Atamo babies were born in either the health center at Manetai or, as referrals, in the hospital in Kieta. Although this has dropped off some in the 1970s, maternity care and pediatric care are responsible for absences from Atamo for periods of over a month.

3. Wage Employment

In the 1950s, the same range of wage employment opportunities existed as that of the immediate pre-war era: expatriate plantations, the colonial administration and expatriate mining operations. Single males probably continued to account for the majority of plantation laborers. Married men, however, also became plantation workers and some took their wives and children with them. This continued until the late 1960s when Atamos stopped seeking employment on expatriate plantations.

In the early 1960s, some Atamos began working on indigenous plantations. Most took up employment with Torau speakers at Rorovana and Vito but some worked for Eivo and Simeku speakers at Kopei, Boira and Manetai (see Figure 7). The number of men engaged in employment on indigenous plantations has varied, but few took their wives and children and most remained away for less than a year.
Mining was resumed at the pre-war Atamo mine in 1949. Like the pre-war mine, this operation provided a chance for men to remain in their home area and earn money. It also brought New Guineans and other Bougainvillians into the Atamo area, some of whom married local women. This only lasted until 1954 when the mine was shut down (see Martin n.d.:19).

In the late 1960s and early 1970s, some Atamo men worked on the construction of support facilities for the Bougainville Copper Company Ltd. mine at Panguna. Most of these men were employed as casual laborers for periods of one or two weeks and then returned home. Few have worked in the mining operation itself although some have been employed by support industries. When I arrived in Atamo only one man was working for B.C.L. and two were working for a private store owner at the mine site. Two of these men returned to Atamo within a year.

Since 1971, the number of individuals leaving for wage employment has declined. At the time of my census (December 1974) there were only eight absentees engaged in wage employment. Seven were single males and one was a single female working at Manetai Mission. Four of the eight had returned to Atamo by May, 1975, and no one left for any longer than two months after that time.

Most adults assert that cash crops are a more preferable way to earn money than wage employment. The cost of living either on a plantation or in an urban center is high, they claim, and cash crops, unlike wage employment, are a heritable source of income. This view, if maintained, in practice will remove the influence wage labor may have on settlement pattern and reinforce the impact of cash crops.
NOTES TO CHAPTER V

1. Atamos claim they were first contacted by the German administration, which was terminated in 1914. They claim their first two line villages were visited by 'German' patrol officers. Genealogical evidence shows that the first two lines were only inhabited for a total of five years. According to informants the first missionaries arrived while they were in their second line village and that the first priest's name was Father McHardy. McHardy arrived in the Eivo area in 1929 (McHardy 1935).

The first written reference to the Eivo area in administration documents is found in the Report to the League of Nations on the Administration of New Guinea from 1 July 1936 to 30 June 1937, paragraph No. 63. The "Aevo District" was reportedly patrolled in January 1937 and "... friendly contact with the inhabitants, who numbered approximately 1300. ..." was established. The report further states that "... native mission teachers and schools ..." had not been established among these people.

My own dates of 1920 for the establishment of Alakabau, of 1921 for the arrival of the punitive expedition in Atamo, and of 1925 for the establishment of the first line village in Atamo are based on dates derived from genealogies. Child and infant birth dates were taken from the mission baptismal register and because birth spacing was so regular, dates of birth for children born earlier could be derived by working back through the genealogies. Dates of the establishment of settlements and events like the punitive expedition were then derived by asking informants what children were born at the time of, or shortly before the time of, the events to be dated. These dates were then cross-checked with other births dated independently of the births used to date the events initially.

Why, then, were there no references to the Eivo area in general and Atamo, in particular, in earlier reports? It is possible that Atamo and the two beach villages of Alakabau and Bove, the establishment of which I date well before 1937, were included with either the beach people or with Nasioi speakers to the south. The contact reported in the 1936-1937 report, mentioned above, was probably with the larger group of Eivo speakers to the north and northeast of Atamo. Among these would have been the people included in the Nasiwauwa line, the establishment of which I date at 1938.

2. The two men who became the village officials reportedly left the Atamo area prior to the establishment of the 'line' to work as laborers on an expatriate plantation. Informants claim they do not know how these men knew about wage labor except perhaps through stories from Torau speakers or from residents of Alakabau who were contacted in c.1920.
3. It is difficult to judge how frequently patrols reached the area during any period before 1945 because of the lack of patrol reports which survived the war. The census figures reported in the Reports to the League of Nations for the pre-war period were revised for "controlled" areas every year. It is possible that there was no more than one patrol per year in inland "controlled" areas. Since Atamo may not have been a "controlled" area before 1937, they may have only seen a couple of patrols in the entire 12 years after initial contact. Informants report, however, that when they were at the Kumuru line (1930-1937), some paid taxes and men worked on roads. They also report that patrols sometimes came twice in a crop cycle. They also claim that when they moved to a new line village site in 1937, patrols came more often.


5. In the late 1940s and early 1950s, two or three patrols per year visited Atamo. In 1962, there were eight. From 1962 to 1967, patrols averaged 4.8 per year. In 1968, patrolling dropped off to two or three per year (Source: Atamo village Book 1953-1974). During my 22 months in Atamo, there were two patrols although the Malaria spraying team visited the village twice.

6. Atamos reportedly feared that "harsh taxes" would be levied against any village that joined a council and this was the reason they rejected the Local Government Council System (Patrol Report No. 10 1962-1963).

7. Atamos and other Eivo and Simeku speakers were reportedly dissatisfied with the lack of benefits they received from the Kieta Local Government Council (Patrol Report No. 2 1970-1971).

8. A paper on changes in religio-political ideologies, entitled "Catholicism, Cargoism and Governmentism" is now in preparation. In it I deal with the incorporation of various concepts from various sources into the prevailing political ideologies in Atamo during three periods. I also trace the development of a form of political organization quite different from the big-man system of pre-contact days.
CHAPTER VI
SOCIAL ORGANIZATION

Kinship and Descent Ideologies

1. Matrilineal Descent

Almost all interaction is talked about by Atamos in terms of a matrilineal descent ideology. Every individual belongs to a matri-sib of which there have been eleven since prior to European contact. Five of the eleven sibs have both Elivo and Simeku names which are clearly not cognate. The other six share the same name in both languages.

Seven sibs have recognized sub-categories which are either named or are associated with plant or animal species or phrases from folk tales telling how these sub-sibs came into existence. Most sub-sibs have migration histories which describe how they came into the Atamo area and at what places they settled. Taxonomies of sibs, depicting the relationships among their sub-sibs vary, and there are, in many cases, folk tales used to support different versions.

There are unnamed moieties, although not everyone agrees as to how they are constituted. A folk tale told by members of both language groups tells of a time when there were only two sibs, but it does not relate how the sibs of today were derived from the original two. Atamos talk about two categories of persons and sibs: (1) those with whom they 'sib'; and (2) those who they marry. Members of some sibs marry members of two other sibs whose members also intermarry and this, informants claim, makes it difficult to classify individuals and sibs into two categories. Despite disagreement over moiety constitution, the concept
allows sib or affinal relationships to be extended to all Eivos and Simekus and in some cases to members of other language groups. Through common names, associations with animal species, and through marriages to individuals who are members of sibs in other language areas, sib and moiety relationships can be reckoned between Atamos and potentially all other Bougainvillians.

2. Kin Categories

Relationships between individuals are described by Atamos in terms of kinship categories. Although Eivo and Simeku speakers classify kin relationships differently, the importance of kin terms and the relationships they describe, for the purposes of this study, are the same. Kin terms imply relationships between individuals which entail rights and obligations. Secondly, kin terms can be applied beyond a limited range of individuals to whom genealogical links can be traced, to anyone who is a member of a sib with which a person's own sib is said to share a relationship. Sib relationships, as already noted, are described in terms of a moiety system which includes the sibs of all Eivo and Simeku speakers as well as sibs in other language areas.

Norms for Social Interaction

1. Cooperation and Aid

Norms for social interaction, although rarely explicitly stated, are generally phrased in terms of sibs and/or kin relationships between individuals. Sib-mates and other kin, Atamos claim, should cooperate in reciprocal exchanges of labor and goods, and affable relations should be maintained among them. Primary kin and MB-ZCh relationships are stressed
in explanations of motives for lending and requesting aid. Supernatural sanctions against disputes among close kinsmen are said to exist and are reported as causes of illness and misfortune (see Hamnett 1977).

Sib and other kin relationships, and the obligations they imply, are used as rhetorical resources by individuals seeking aid and in recruiting members to activity groups (see Scheffler 1965:294). Informants often describe their joining a particular group by saying: "My father called me to join his settlement"; or "My mother's brother wanted me to come"; or "John said we were sib-mates and we should join together to make this feast." How much of an affective commitment Atamos have had to the obligations implied by these statements is impossible to say. Such phrases do, however, serve as explanations for behavior and as verbal resources used in recruiting group members and in soliciting aid.

2. Marriage

Sibs and moieties are normatively exogamous. Because moiety membership is not agreed upon, however, there are cases in which the moiety exogamy of a particular union is a matter of contention. Sib membership is not ambiguous, and most informants claim there are supernatural sanctions against marrying members of one's own sib. Although sib endogamous marriages have been few, they have been justified by the partners and those supporting the marriages, who claim that sub-sib exogamy has been maintained.

Atamos claim that individuals should marry members of their father's sib. Some claim males should marry their real or classificatory MBD or FZD and females should marry their MBS or FZS. Others claim that real cross-cousins are too close and classificatory cross-cousins are 'proper' marriage partners.
Atamos maintain that marriages are exchanges among sibs. As such, they should, like all other exchanges, be balanced. Balanced sister exchange and bride service are said by Atamos to eliminate the need for bride price, which Atamos do not pay.4

Atamos say that land tenure and continuity in the control of land is often an important consideration in choosing a marriage partner. In many cases, they claim, land is used and controlled by two sibs, a husband's and his wife's. In such cases, if children marry their father's sib-mate, the land remains in the control of the same sibs (see Chapter VIII, "Land Tenure").

Most marriages are arranged and it is generally expected that the fathers, father's brothers and/or mother's brothers of both partners do the arranging. Arrangers are often big-men and as such they have a special interest in the land tenure implications of a marriage and the post-marital residence of a couple who are potential followers.

Divorce is strongly discouraged and I found few instances of it.5 Informants report that divorce results in bad feelings among the kinsmen of both partners. Marriage negotiators, informants claim, often big-men actively discourage divorce because it could result in demands of compensation.

Widows and widowers are encouraged to remarry. Levirate and sororate are reportedly preferred. Choice of secondary marriage partners are, however, less often arranged by others and are considered more a matter of choice for the partners.

Polygyny was reportedly common in the past and a man, generally a big-man, might have as many as four wives at one time.6 Informants report
that marriages to second and third wives were rarely arranged by others
and big-men just chose secondary wives themselves. Sororate was
reportedly preferred, although some big-men married women from three or
four sibs. In recent years polygyny has become less common and less
acceptable as a result of mission influence.

Sib exogamy, cross-cousin marriage and sister exchange are principles
put forth by Atamos in marriage negotiations. Although their affective
commitment to norms using these principles is impossible to measure, they
serve as both explanations of behavior and as rhetorical resources in
negotiations.  

3. Residence

Atamos have norms which dictate where and with whom individuals
should live during different periods in their lives. Children, they
claim, should live with their parents. They should remain members of
their parents' households as long as their parents are living or until
marriage. If one or both parents die, a child may become the member of
his or her parents' siblings' household.

Adolescent males, informants claim, are more independent of their
parents than females or younger males. Although parents sometimes
criticize their adolescent sons for spending little time at home, most
adults claim that is the way adolescent males behave. In recent years,
informants note, adolescent males have become more independent than they
were in the past and although older adults bemoan this change, they say
they can do little about it.

Atamos claim that sexually mature male and female children should
sleep in separate rooms. This, they say, is important because males
should avoid contact with their sisters' beds or clothing against which there are supernatural sanctions. Informants claim adolescent males are encouraged to build their own sleeping houses to facilitate the separation of sexually mature siblings of the opposite sex.

Betrothal sometimes results in a change in residence. In the past, informants claim, a male was expected to aid his intended wife's father in gardening and feast preparation. If he lived too distant from his betrothed's settlement he might be expected to either build a house there or to move into a room in an existing house. Females might also move as a result of an infant or child betrothal to an immature male or a big-man who would raise the child and marry her when she reached maturity. In most cases, informants claim, changes in residence before marriage were unusual unless an individual's parents were dead or a big-man 'pulled' the person to his settlement. Today, the incidence of settlement shifts at betrothal is reportedly lower but still may take place when the parents of one partner are dead.

Marriage is generally expected to result in a change in at least the household affiliation if not the settlement group affiliation of at least one partner. Atamos claim that a male should move to his wife's father's settlement or near his house. They admit, however, that this is often not done for a variety of reasons. If the bride's parents are dead, she may go and live with her husband's parents. If the groom's father is a big-man, the bride may move to his household. If the groom is an older man, especially if he was previously married, the bride is as likely to move to her husband's house as he is to move into or near her father's house. In most cases, the post-marital residence of a man or
woman is subject to negotiation and various factors may influence the final outcome.

After marriage a couple may remain members of an existing household (see below for a definition of a household). Atamos claim, however, that this is considered a temporary arrangement and that a newly married couple is expected to establish their own household. Informants say that a young married man who does not build a house before or shortly after marriage is lazy. Older informants claim that young couples generally remain affiliated with an established household until it is clear that the marriage has been consummated and is likely to survive.9

Once a couple have established their own household, they may be expected to live near the parents and/or mother's brother of one partner. In the past when Atamos lived in scattered hamlets this was apparently more of a concern than since the introduction of village type settlements. Informants report that even before the war, young couples tended to live in the line or half-line while older couples tended to remain in hamlets. Younger couples were involved in church activities which were centered in the line and half-line and involvement in these activities was considered a legitimate reason for line or half-line residence. After the war the increase in mission activities and the addition of modern political activities made line or half-line residence even more legitimate. Now that most households reside in a village type settlement, a young couple may be encouraged or expected to establish their residence near the house of an older couple. The older a couple becomes and the larger their household grows with the addition of children, however, the less they become subject to pressure from older kinsmen.
Atamos claim that when they lived in scattered hamlets, households were expected to live on land to which their members held some sort of rights. As described in more detail in Chapter VIII, there is a hierarchy of rights to land, the most insecure of which can be gained through gift. Rights to land were granted by political leaders to attract followers but these rights were sometimes challenged by individuals holding more secure rights. Informants explain that this rarely happened because, if they denied use of land to others, who would aid them in making feasts?

The line village, after its introduction, was reportedly considered a settlement in which everyone had a right to live. Some informants claim that rights to land may have been a consideration in the choice of line and half-line sites, but that such decisions were made by head-men, none of whom are alive today. Although most people now live in a village type settlement and many of them have done so for many years, some informants still claim people should reside on land to which they hold rights (see Chapter VII, "Land Tenure"; and Chapter X, "Settlement Pattern Change 1925-1974").

A household is generally expected to remain a residential unit as long as the marriage around which it is built remains intact. Should the marriage be dissolved through divorce, bad feelings directed at one or both partners may result in a change in residence for one or both partners. The death of one partner may result in a change in residence for the surviving household members if they are 'pulled' by kinsmen into another household or for marriage.
Offspring are expected to care for their parents in their old age and this may result in the addition of a parent with or without immature children to a household. Widows are more likely to become attached to another household than widowers. Both widows and widowers tend to be mobile and may attach themselves to several households in succession.

Groups

1. Households

Residential groups (i.e., households, hamlet residents, neighborhoods and village residents) probably formed the most enduring and active social groups among Atamos prior to European contact. The household was, and is today, the group which spends the most time together. They ate together, usually slept together and gardened together. There was a division of labor in subsistence and men probably spent relatively more time away from other household members than women who gardened and cared for children.

Although the size and composition of households varied, most were composed of a nuclear family in some stage of development. Some contained more than one nuclear family, but these were generally made up of an older couple with a young married offspring, ZCh, or sibling and his or her spouse. In general, however, multi-family households did not endure for more than a year or so. Some households contained widows or widowers or unmarried adult consanguines or affines of the household head or a group of young men attached to it. In general, however, households containing attachers were headed by feast givers who encouraged individuals to join their households.
2. Hamlet Groups

Hamlet groups (i.e., the usual residents of a hamlet) constituted the next most active unit in terms of interaction. Pre- and early contact hamlets contained from one to twelve households. Their size and composition varied over time as households moved in and out and as households were created after a marriage or were dissolved after the death of a household head or his spouse. Hamlets containing more than about three households were generally unstable and did not endure.

Smaller hamlets were generally composed of households whose heads were close consanguinal relatives or affines and whose members were from two sibs. Larger settlements generally consisted of members from three to five sibs. Most hamlets, however, were identified with one sib or sometimes two sibs. One of these was generally the sib whose members held either primary or full title to the land on which the hamlet was situated.

Settlements containing more than one household generally had at least one resident feast giver (see Chapter VIII). Larger settlements consisted of households recruited by a big-man and the settlement group members were considered his followers.

3. Neighborhoods

Settlements within a contiguous area were generally identified with a focal settlement and/or a spirit shrine (see Chapter VIII). These areas or neighborhoods, informants claim, sometimes contained settlement groups which regularly interacted. In some cases, two or more neighborhood groups formed a single interaction group, but in most cases larger groups did not endure.
4. Village Groups

The line village was different than any pre-contact settlement. From shortly after contact, it contained not only a settlement group similar to those resident in hamlets, but also served as an occasional residence for an even larger group. Initially the half-line was similar to the line, but it had a larger resident population. As already noted, the importance of the line and half-line grew as focuses of religious, political and ritual activities as did the number of usually resident households. Ultimately the line and half-line were combined into Atamo 'town' which now contains a majority of the area population.

Within the 'town' there are clusters of households which resemble the larger hamlet populations of pre- and early contact times in size and composition. They are generally identified with particular sibs and with particular leaders. Most household clusters have one or more hamlets affiliated with them. There are, however, three households resident in three hamlets that form a pre-contact type neighborhood group and engage in relatively less interaction with 'town' dwellers than they do with each other.

Since the introduction of the line village, households considered resident in it and the valley in which it has been located have come to be identified with the name of the village, Atamo. Although there was no time at which all Atamos were usually resident in a single settlement, they have come together in the 'line' or more recently in Atamo 'town' for various activities. Initially colonial administration work days and censuses brought all adults considered resident in the 'line' together. Mission activities just after the war and until about 1960
drew Atamos into the line even if hamlet dwellers only remained there temporarily. In the early 1960s cargo cult activities brought all valley residents together. In the mid- to late 1960s and into the 1970s, the grassroots political movement, mentioned above, resulted in gatherings of line residents and the few remaining hamlet dwellers for meetings and work projects. During my stay, village meetings which involved most of the adult population of hamlets and the town were held about once a week. Village Government work days also brought valley residents together, and fines were threatened against those who did not participate. Although Atamos may not have been an interaction isolate prior to European contact, they have become so since. They interact more frequently with each other today than they do with individuals from other village areas.

5. Activity Groups

Atamos report that the range of activities in which they engaged prior to contact was limited to gardening, pig raising and feasting. Pig raising was a household enterprise with women providing the limited ration of pig food and males providing the magic.

Gardening was largely done by a household which could provide all the labor necessary for subsistence. Informants report that men from more than one household, usually settlement-mates, sometimes joined together in gardening groups to clear large trees and build fences. Women, usually working individually or with their husbands, planted and harvested crops. Magic was generally provided by the household head. Gardens were sometimes clustered in an area where a large tract of land
had been cleared by a group of men and those with gardens in that area traveled to and from gardens together.

Feast preparation and execution reportedly involved more than one household. Informants claim that settlement mates of a feast sponsor provided most of the labor for pig raising, food gardens, almond gathering, hunting and final preparations. Others, usually residents in the neighborhood or close kinsmen of the sponsor, contributed labor for some phases of preparation. In some cases, recognized feast givers from other areas organized their followers to make contributions.

Major pig prestations and lesser ritual occasions and those contributing labor were generally associated with single sibs. In most cases, this was reportedly the sib of the sponsor, his wife or another sib for whom the sponsor was organizing a feast. In most cases contributors were members of more than two sibs, as sponsors called upon not only their settlement mates, who, in many cases were from more than two sibs, but also called upon a wide range of consanguines and affines.

Although no living Atarno witnessed warfare, which was reportedly rare even before contact, stories told by the ancestors of living Atamos indicate that fighting groups were also homogeneous in terms of sib and residential group affiliation. They were identified with settlement groups, particular leaders as well as with sibs.

Since European contact, the range of activities for which groups are formed has expanded. Most activities have involved people from the Atamo area but some have included segments of the Atamo population with Eivo and Simeku speakers from other areas.
The mission incorporated active church members from Atamo into its congregations. Within the line and half-line and more recently within the 'town', active church members formed chapel congregations. Children from Atamo became students at Manetai school and more recently at Atamo school with children from other village areas. Parents of students have participated in the Teachers' and Community Association, which has supplied labor for school construction and maintenance. Active membership in mission and school groups at Manetai influenced short-term movement patterns while groups in the Atamo area have drawn people into the line and half-line.

The Local Government Councils, the grassroots political movement, mentioned above, and the Eivo Village Government Assembly involved groups within the Atamo area as well as interaction between Atamos and Eivo and Simeku speakers from other areas. Meetings and work projects associated with these political organizations involving most of area's adult population have already been mentioned. The Kieta Local Government Council, which met monthly, included representatives from Atamo and other Eivo and Simeku villages as well as Nasioi and Torau speakers from in and around the urban center of Kieta. The Eivo Council, the committee which led the Atamo-based political movement, and the Eivo Village Government Assembly consisted of men from all Eivo and Simeku speaking villages who met at Atamo and designed projects and solicited funds. These were all organizations with Provincial and National level affiliations which involved contact between Atamos and leaders in the Provincial and National Governments.

Modern economic pursuits have also been the focus of group activity within Atamo. Men have formed groups to plant and harvest cash crops
since the 1950s. These, like other activity groups, generally consisted of settlement mates and kinsmen of the organizers. In recent years, big-men have organized groups of adolescent boys and young men who hire themselves out to clear bush for cash crops. During my stay in Atamo there were three such groups and the majority of members were drawn from within household clusters within the 'town' and hamlets affiliated with them. While I was there, one of these groups opened a trade store managed by one of its members.
NOTES TO CHAPTER VI

1. A sib is a maximal descent category (see Murdock 1949). Matri-sibs, among Eivo and Simeku speakers include all individuals, living and dead, who are the putative matrilineal descendants of a single ancestress. Matri-sibs are named and are generally associated with an animal or plant specie.

At contact, there were nine sibs represented in the Atamo area. Since contact, two more have been represented by at least one resident. At the time of my census, there were individuals from ten sibs in the Atamo population.

2. Kinship categories are lexemes denoting classes of kinsmen. Kinship is defined as a culturally recognized relationship between two individuals based on or modeled on a traceable genealogical link between them.

3. Eivo contains 35 kin terms while Simeku contains only 18 terms. While the terminologies are different, I could discover no differences in patterns of behavior between kinsmen which could be linked to differences in kin terminology.

4. Atamos deny that they 'buy women' which is how they characterize payments of bride price in other areas of Bougainville. 'Gifts' are sometimes given, however, at betrothal and marriage and bride service is sometimes performed. In 30 (25.9 percent) of the 116 marriages involving living Atamo adults, 'gifts' were given. These generally consisted of a 'laplap', knife, lamp, axe, or cash amounting to no more than SUS 13.70. Bride service was reportedly performed in 57 cases (49.1 percent).

5. Atamos claim two betrothed individuals are married when they begin sleeping together in the same room. It is sometimes difficult, therefore, for individuals other than those living in the same house as a couple to know if they are actually married.

Of the 116 unions of living Atamos generally recognized as marriages, only two were dissolved by divorce. In all my genealogies in Atamo, Kanavitu and Nasiwauwa, I found only an additional five divorces.

6. There was only one case of polygyny in Atamo at the time of my field work. This involved a man with two wives. It was reportedly unusual for a man to have more than one wife after World War II, and this marriage was, informants claim, unusual.

7. Data on the 116 marriages mentioned in note 5 indicate that Atamos followed their norms regarding marriage to some extent. There were only two sib endogamous marriages. Of the 113 marriages for which I have sufficient data to judge, 56 (51.8%) involved one partner
who married a member of his or her father's sib. Twenty-six (24.1%) involved partners both of whom married members of their fathers' sibs. No marriage from Atamo involved partners who were first cross-cousins, however, this was reportedly common in the past.

8. Residence rules, like norms for other types of behavior, are rarely stated in clear and concise terms as they are presented in this dissertation. The rules or norms presented here have been inferred from a range of statements Atamos made in the context of interviews on behavior patterns observed in Atamo or reported by Atamos or statements made in reaction to the behavior of Atamos and other Eivo and Simeku speakers.

9. Atamo adults claim that even after a couple begin sleeping together, the marriage may be fragile. For this reason, informants claim, young couples are encouraged to remain attached to an older couple until it is clear that the union will endure.

10. Following Oliver (1955:102) and others, a group is defined as "a combination of individuals who interact with one another face-to-face, with some frequency over a period of time, according to a hierarchic pattern of interaction and as a discrete unit ..."

11. Settlement, hamlet and village are distinguished from settlement group, hamlet group and village group respectively. The former terms refer to clusterings of physical structures whereas the latter refer to the groups of individuals which inhabit them.

12. A hamlet is defined as a pre-contact style settlement containing one or more households. It is roughly equivalent to the Eivo term karekon and the Simeku term osi. Hamlet is distinguished from 'line', 'half-line' and 'town', which are post-contact type settlements to which Atamos apply Neo-Melanesian terms equivalent to the English glosses used here.

13. As described in Chapters XI and XIII, the half-line and the Simeku section of the 'town' have been distinguished from the line village and the Eivo section of the 'town'. Simeku speakers living in the half-line have generally been associated with the place name on which their settlement has been located. When the half-line was moved, the name of the new settlement site was applied to the people who inhabited it. Current day Atamo Simeku speakers are referred to as 'Uruto people'--Uruto being the place name of the site on which the Simeku half of the 'town' is located.

Atamo is a name which has been applied to the line village since its establishment. Prior to contact it was reportedly a general area name and the name of a spirit shrine site associated with a large tract of land on which the original line village was located. Atamo is retained as the name of the area, the name of the 'town' and the Eivo section of the 'town'.
14. As noted in Chapter VI, Atamo was served by Tunuru Mission from 1929 through 1942 when Manetai was established. They have been attached to Manetai Mission since, although mission activities were suspended during late 1943, 1944 and early 1945.
CHAPTER VII

LAND TENURE

Atamos claim they have always had plenty of land and that use of any unused tract could be made by almost anyone. They say there has always been plenty of land and that those requesting land should be given some. Those who 'own' land, they claim, must allow others to use it or the 'owners' would have no one to help them with their feasts nor would they have anyone to marry.

The necessity of allowing anyone to use any land notwithstanding, rights to all land are not, in practice, open to everyone. There is a hierarchy of kinds of title which afford a variety of rights including use. The kinds of title fall into two general types: full ownership and divided ownership. Both types of title may be held by individuals or groups. Almost all individuals share full title to at least one land tract, although for some these are located in areas other than Atamo. Households generally have access to full title land of both the head of household and his spouse. In addition, a household may have rights to land through some form of divided ownership, affording them options to use several land tracts.

The rights afforded by any form of divided ownership are, however, ambiguous and variable in number and variety. There are means whereby individuals holding title to land under divided ownership can increase the security of their claim to various rights. Atamos say, however, they can never be sure their rights will not be challenged.
Established political leaders are said to be the managers of land and they have been the most influential people in the disposition of land titles. As such, they have been the most able to grant rights to others. They have also had the most to gain by encouraging individuals to accept 'gifts' of land which, in most cases, afford relatively limited and insecure claims to rights. In order to claim and maintain title to land, individuals must use and/or reside on it. Through 'gifts' a big-man could entice into his settlement area individuals and groups who could provide labor for feasts and other activities.

Although informants claim the opportunities for gaining rights to land, the ways they are acquired and rules which specify what they can and cannot do with land have changed little since contact, use patterns reportedly have changed. Informants claim more people are gardening on land to which they hold no title than there were in the past. This has permitted individuals to live in a nucleated settlement which otherwise would necessitate long house to garden distances for some.

The introduction of cash crops presented Atamos with a new use for land. Coconuts, from the time they were first planted as cash crops, were generally planted on land to which the planters held heritable rights. Cocoa, on the other hand, was not. In recent years, however, individuals have tended to plant on land to which they and their children have rights. For some, this necessitates either planting their cash crops at long distances from their residences or moving to their plantations.
Types of Land Title

Full ownership, where it is recognized, affords the greatest number of rights and privileges. Full owners are the putative matrilineal descendants of the spirit which first inhabited a land tract to which no other enduring title was granted. Full owners may use land for subsistence gardening, hunting and gathering and in most cases for cash crops. Use rights for subsistence, hunting and gathering are automatically afforded to wives and children of male title holders as long as the title holders are living and in most cases after they are dead. Full owners may also transfer some rights and privileges to other individuals and groups through grants of use rights, sale, gift in return for aid, exchange, or, in some circumstances, bequest to offspring who are not full title holders (i.e., the children of males).

When rights to a land tract are transferred by full title holders to either a group of their members or to an individual or group that previously held no title to the land, the land can be said to be held in divided ownership. The former full title holders retain residual title (Goodenough 1951:38-42), while the individual or group to which title was transferred can be said to hold the land under provisional title. The rights of residual title holders vary and tend to diminish over time. In general, however, residual title holders are entitled to recognition as the original 'owners' and to claim full ownership should there be no living matrilineal descendants of those to whom rights were transferred. Residual title holders may also be entitled to payment in the event that the land is sold and to a voice in discussions over the disposition of the land.
Provisional title holders are those who themselves or whose matrilineal ancestors received rights to land through long term occupation, exchange or purchase, as compensation for aid in warfare or feasting and/or as inheritance from a male ancestor. Provisional title may be obtained by a segment of the original land holding corporation through a formal land division or through long-term occupation. Provisional title may be obtained by individuals who held no previous title to the land through exchange, purchase, as compensation for aid in feasting or warfare and/or inheritance from a male ancestor. Provisional title holders are entitled to use the land for subsistence, hunting, and gathering and to bequeath their rights to their matrilineal descendants. They are usually entitled to extend use rights for subsistence gardens, hunting and gathering to their spouses, children and others who request them. Provisional title holders may also be entitled to extend use rights for cash crops to their spouses and children although this right has, on occasion, been challenged in recent years. They may also be entitled to pass their rights to non-uterine kin or to sell the land with permission from residual title holders. They may also claim full ownership should there be no surviving residual or derivative title holders (see below). They and their uterine kinsmen are generally entitled to retain control over the land even if residual title holders demand they abdicate their rights without compensation. Individuals holding provisional title may strengthen their claim to retain control over the land by continuous use, payment to residual title holders, or marriage to a sib-mate of a residual title holder.
Derivative title holders are those individuals entitled to claim full or residual title to land to which there are no residual or full title claimants. These are generally sib-mates of residual or full title holders who are not descendants of the first inhabitants of the land, but they may also be non-uterine kin.

As already noted, use rights may be granted by full or provisional title holders and in some cases by residual or derivative title holders. In most cases such rights are use specific. They may be rights to plant subsistence gardens, rights to hunt or gather or rights to plant tree crops including coconuts and cocoa. Occupation and/or use increases a person's claim to land over time, and individuals or groups may be able to exercise what amounts to provisional title if they or their ancestors have occupied land for a long time.

Most land tracts are controlled by one or more 'big-men' (unato in Eivo and oboring in Simeku) who act as managers. This control is more than an extension of an achieved political leader's influence over his followers, although influence is certainly a factor in the extent of his control. Atamos speak of a 'big-man' of a particular land tract, and citing the names of big-men who controlled a tract in the past and tracing kinship or descent relationships to them may be accepted as proof of full, residual or provisional ownership. Most big-men of particular tracts or their spouses are either full or provisional title holders. Big-men of land tracts are sometimes named by their predecessors, although this is no guarantee that the person named will become a recognized feast giver and retain control over the land.
Land Tracts

Land tracts vary in size from a single settlement site of a few hundred square feet, to large upland bush areas along the Crown Prince Range and major ridges forming the valley. Pre-contact settlement area land tracts, however, generally consist of one or more ridges which are bordered by the upland bush areas and by streams and rivers.

There are major land tracts bordered by the upland regions and by major rivers which were once held in full ownership. They contain a spirit shrine associated with a sib or sub-sib. These shrines are said to be the places where the 'spirits' of the original inhabitants of the land tract reside, and to be sources of supernatural strength necessary for successful pig husbandry and crop cultivation.

Sets of ridges within major land tracts are known to have been sold or given in exchange for aid or as gifts to moiety-mates or affines of the original full title holders. In other cases, sets of ridges are more closely associated with one segment of a sib, another segment of which is reputed to have been the original full title holding unit. In some cases the details of a land transfer are known and in others they are not.

Some settlement sites and the ground surrounding them are said to be the places of the ancestors of current day provisional title holders. In most cases, the details of the acquisition of these settlement sites are unknown and they are simply known to be associated with the ancestors of present-day claimants.

Proof of title to all land tracts rests on establishing that one's ancestors were descendants of the original inhabitant, acquired the land
through a transaction known to have taken place, or used the land over
a long period. Intensive use or occupation areas, especially settlement
sites, almond places or spirit shrines, are most closely associated
with individuals whose names are retained in stories and folk tales. Such
focal places are both the most widely cited in land claim and the most
highly disputed because settlement groups consisted of individuals holding
a variety of kinds of title to the land on which settlements were
located.

Title Holding Units

Title to land is generally talked about by Atamos in terms of sibs
'owning' land, and the distinctions in types of title described above
are largely ignored. Land holding units are usually made up of
individuals related through matrilineal descent ties but they rarely
include the members of an entire sib. Decision on the disposition of
land or the allocation of use rights or provisional titles generally
involve participation by all interested parties resident in the area.
Discussion of such matters in meetings called by individuals or in the
context of a dispute usually involve resident members of land holding
units and their spouses and not title holders resident elsewhere.

Residual title holders to a land tract are generally the largest
unit which takes an active interest in the disposition of rights to it.
They may constitute an entire sub-sib in cases where title was trans­
ferred to an individual or group who prior to the transfer held no title
to the land. Where the land was transferred to individuals who held
title previously, residual title holders are generally one or more sub­
sub-sibs.
Full title holders are usually composed of a sub-sib or a segment of it (a sub-sub-sib) which has occupied or used land for a generation or more or was assigned 'ownership' by a manager in the past and its members have retained control.

Provisional title to a land tract may be held by an individual, lineage or sometimes a sub-sib. In some cases, provisional title holders are of the same sib or sub-sib as residual title holders but they have not held the land for a sufficiently long time to gain full ownership. In other cases, provisional owners are affines or moiety-mates of residual title holders.

Derivative title holders are generally the sib-mates of full or residual title holders, in some cases they may, however, be their non-uterine kin. This is the land holding unit with the most amorphous membership in that, in many cases, the residents of the area do not know who these people are. Moreover, in some cases, individuals said to be title holders by area residents do not know they have any rights to the land.

Membership in land holding corporations may be recognized by a majority of those concerned with a particular land tract, but in some cases membership is a matter of contention. Without impartial judges to adjudicate land claims and a body of clearly articulated land law, this is as one might expect. Conflicting claims to membership in title holding units are often not resolved and solutions to conflicting claims are settled by compromise. This allows powerful political leaders to manipulate land tenure to their own advantage and discourages individuals
from using land to which they do not hold full title or provisional title with a widely recognized set of rights and privileges.

In pre- and early contact times, most households reportedly occupied, gardened, hunted, and gathered on land to which the household head or his spouse held full title or provisional title that was secure and entailed some control over the disposition of the land. Informants report that households often used more than one land tract at the same time. They resided, gardened, hunted and gathered in groups composed of full, residual, provisional and use right title holders to various plots, and as long as amicable relations were maintained among the groups, land title was rarely an issue.

Households could be enticed to occupy land to which the members did not have extensive rights, but, in most cases, shifts in residence to such land were only made over short distances and by sib-mates of full or provisional title holders. Sib-mates of full title holders were reportedly encouraged to accept provisional land title by individuals who emphasized the common sib membership of full title holders and potential provisional title holders. The rights and privileges of provisional title holders were reportedly not enumerated when land was offered and rarely discussed except in the context of disputes.

Individuals other than sib-mates of full title holders, informants claim, rarely accepted provisional title unless there was some means whereby they could secure their claim. Purchase, exchange, or a public acknowledgement that a transfer of title was compensation for aid, reportedly provided some assurance that provisional title would not be revoked without compensation. Other means were also employed to bolster
a claim to land such as the carrying of earth by provisional title holders from their 'own' ground elsewhere and spreading it on the land they were given so they would be residing on their 'own' land.

Political leaders, who organized pig feasts and encouraged participation in their efforts, were generally more concerned about holding secure title to land they used than others. To them, undisputed control over land made it easier for them to extend rights to others. This allowed them to build their following and increase the amount of labor available for pig feast preparation.

Since European contact, a number of changes in land use patterns have occurred. With the introduction of the line and half-line and the growth in their populations, a decreasing percentage of Atamo residents have held title to the land on which their settlements have been located. Most households, however, have been able to use land to which either the household head or his spouse held full or provisional title for subsistence, hunting and gathering.

Informants report that since the establishment of the town a higher percentage of households have been planting subsistence gardens on land to which their members hold no rights. Some political leaders have reportedly announced that anyone can use their land without asking permission, and people have done so. Despite this reported trend, less than half (41.7 percent) of the 120 subsistence gardens in Atamo at the time of my census were planted on land to which household members held neither full nor provisional title.

As already noted, coconut plantations have generally been planted on land to which individuals held full or provisional title. Most
plantations have been planted on former settlement sites, the land to which most individuals hold provisional title. Over 75 percent of the 80 coconut plantations in the Atamo area at the time of my census were located on land to which the household head or his spouse held full or provisional title.

When cocoa was first introduced, as already reported, less attention was given to planting on land to which individuals held secure title than was given to planting on land said to be most suitable for cocoa by agricultural extension agents. Informants report that new plantations, however, are being planted on land to which members hold full or provisional title and which is inheritable by their offspring. At the time of my census in Atamo, approximately 67 percent of the cocoa plots were planted on land to which households held either full or provisional title and all the plots planted during my stay were on such land.
NOTES TO CHAPTER VII

1. The land title terminology used here has been adopted from Goodenough (1951:33-34) and Ógan (1971:84). The types of title distinguished in this chapter are analytical categories and neither Eivo nor Simeku contain equivalents of all of them. Atamos do, however, refer to provisional title holders as being 'on top' of what I term residual title holders who are generally referred to as the 'true owners'. Where no 'on top' title holders exist, those 'owning' the land would be full title holders.

Following Goodenough (1951:33), "title" is defined as a constellation of rights, privileges and duties devolving on one party as "owner" of a piece of property.

2. In this section, I discuss households as if they are composed of nuclear families. As noted in Chapter VII, most households are and have been composed thus since prior to contact but some are not. Those that are not are either widows and widowers with or without children and polygynous families. Widows and their children may retain use rights to land to which the deceased (former) head of their household held title. They may also, as indicated later in the chapter, retain provisional title. A widower may retain rights to his wife's land through his children. A polygynously married male may claim use rights to land to which each one of his wives holds title.

3. The right of male full title holders to plant cash crops on land to which they hold full title has been challenged in several cases in recent years. Informants claim these challenges stem from their belief that the males in question will attempt to pass rights to their land on to their offspring. They are not sure, they claim, whether males should be allowed to plant cash crops on their land at all, but many continue to do so without being challenged.
Pre-European Contact Leaders

Prior to European contact, Atamos claim there was only one type of leader, the 'big-man' (unato in Eivo and oboring in Simeku). Big-men were managers of land, organizers of feasts and leaders among their followers.

Big-men, informants claim, are and always been those who achieved a 'name' through competitive feasting. Prior to contact they reportedly spent a majority of their time planning and preparing feasts. They were not war leaders although they sometimes hired men who knew war magic to divine the best time and strategy for fights and to lead the battles. Warfare was, however, reportedly infrequent and not important in gaining and maintaining followers.

The relationship between big-men and land was mentioned in Chapter VII. Those who were named 'big-men' of particular land tracts did not necessarily attain a 'name' and retain control over land. Those named 'big-men' or managers of land may have had some advantage because of it, but, informants claim, those who did not make feasts were not 'strong': They were not listened to by their fellow title holders and in many cases other individuals took control of part or all of 'their' land. Those who did become feast givers were reportedly heeded by their kinsmen and followers and whether they were formally named 'big-men' or not, they came to be known as 'big-men' of the land they controlled.
Some men began giving feasts when they were young adults. Informants report that established feast givers encouraged their sons, sisters' sons and daughters' husbands to become involved in feasting. In some cases older men reportedly challenged their younger kinsmen to a feast or to present a feast to others. It was thus, informants report, that many feast givers began their careers.

Feasts, informants state, could be organized for any number of crop cycle rituals and rites of passage, but the majority were 'memorial feasts'. Atamos claim they have always had an obligation to make memorial feasts for deceased parents, spouses, siblings, children and other close kinsmen. If an individual so desired, he could prepare a feast as a memorial to almost anyone as a moiety-mate or affine or in the name of a kinsmen of the deceased. If a feast was not made by the close kinsmen of a person who died, those entitled to receive a feast or the 'spirit' of the deceased might become angry and cause harm to those obligated to present the feast.

Most feasts were reportedly made within a year or two of the time a person died, but some were not. In some cases, informants claim, misfortune such as illness or the failure of pigs to grow well was interpreted as an indication that a deceased kinsmen's soul was angry because a feast was not made, and a feast was prepared. In other cases, an individual who felt entitled to receive a feast would challenge those obliged to provide it by either presenting them with a feast or letting them know that he felt they were incapable of mounting one.

Most feasts were reportedly balanced exchanges and failure to reciprocate a feast resulted in a loss of esteem for the original
recipient. In some cases, additional pigs were given as repayment and the exchange was continued for several years before it was balanced.

Feasts, which were described in terms of the number of pigs presented, ranged in size from a single pig to as many as ten. Some were combined prestations of one or more initial feast and/or one or more repayments and thus the number of pigs actually presented at one time sometimes exceeded ten. Accompanying each pig, informants claim puddings, some of which weighed over 100 pounds, made of yams, taro, almonds, or opossum were presented. In addition, uncooked food and betel nut were given.

The amount of time which elapsed between a decision to make a feast and its presentation depended largely on the time it required to obtain the size and number of pigs desired. If a feast giver had only piglets and could not obtain the desired number and sizes of pigs from others, a feast generally took a little over two years to execute. Even when pigs were obtained from others, I would estimate that most feasts took about two years of preparation.4

The labor required for a feast depended on its size. It was difficult, informants claim, for a single household to organize and present a feast of more than two or three pigs. Large feasts, of over about five pigs, generally required the cooperation of several households and contributions, of at least labor, from others. Feast preparations included raising pigs, planting gardens, almond harvesting, hunting, gathering coconuts and betel nut, building houses, carving slit gongs, making puddings and cooking food. Although I have no data on the labor required for feasts presented prior to contact, a feast for which two prestations of nine pigs each were made during my stay in Atamo entailed
over 2100 man-days. This did not include the time devoted to raising pigs and planting gardens. Feasts of pre-contact times may have been smaller and required less labor although informants claim the feasts of that era were bigger and better than those of today.

Men preparing major pig prestations appear to have employed two general strategies in organizing the labor and resources necessary. Some feast givers did a majority of the work themselves: they raised the pigs, planted the gardens, harvested the almonds, hunted, constructed the houses and food platforms. They called upon their settlement group and neighbors to aid them in final preparations and may have been aided by one or two men who were considered their followers. Other feast givers solicited aid from recognized feast givers who provided pigs, almonds, puddings as well as labor for final preparations. Most feast givers appear to have combined these strategies and drew labor and resources from wherever they could.

Informants describe some successful feast givers as 'men who pulled men'. These 'pullers' reportedly solicited followers and encouraged them to settle in or near the 'pullers' hamlet. They emphasized kin relationships, and common sib membership and granted rights to land to 'pull' people into their area.

Feast givers reportedly established hamlets for specific feasts. They invited their neighbors and kinsmen to join them in preparing for feasts. With a large settlement group population, a feast giver would have found it easier to organize his potential labor force for any phase of feast preparations. In some cases these groups gathered for a feast remained together after the feast was presented and in others the hamlet group households dispersed.
Post-European Contact Leaders

1. Feast Givers

Although there have been changes in political organization since European contact and new types of leaders have become influential in Atamo, those men with 'names' as feast givers have remained significant figures in the control of land labor and other resources. Atamos claim, however, that the feast givers of today are not really 'big-men' like the feast givers of pre-World War II times. The men of today have other interests, they say, and do not devote all of their time to the organization and presentation of feasts.

After European contact and prior to the war, there were men who are still considered by living Atamos to be 'big-men'. These men continued to live in hamlets and to 'pull' men into their settlements for the preparation of feasts. However, as wage labor drew young men out of the Atamo area and more households took up residence in the line and half-line, there were fewer households which could be recruited to hamlets. Just prior to and following the war, big-men began presenting their feasts in the line and half-line.

As the men who had been big-men before the war died out, the number of committed hamlet dwellers declined. Younger men, who reportedly knew little of pig magic and other practices said to be necessary to become successful big-men, continued to establish small pig hamlets to raise pigs for feasts. Often, however, when feasts were over, they returned to the line or half-line. Feast givers ceased to be 'pullers' of men in the same way their ancestors had and they themselves moved to the labor source in the line and half-line.
Men today continue to give feasts. During my stay, Atamo men sponsored four major pig prestations, all memorial feasts, in which thirty-one pigs were given. In addition, twenty-four other pigs were given on nineteen other occasions. These minor feasts involved some men with 'names' whereas all four major feasts involved men who had histories of preparing and presenting major pig feasts. Although the men with 'names' did not enlist many members to their settlement groups for the preparation of these feasts, they mobilized a substantial amount of labor and resources.

During my stay in Atamo, there were men whom informants identified as men with 'names' for giving feasts, although not everyone agreed who was a feast giver and who was not. Life-time feast histories of 64 adult males show that 13 of the men raised and presented over 70 percent of the 366 pigs reported in the survey. These 13 men mobilized over 68 percent of the total pigs raised by other individuals. The same 13 men sponsored over 57 percent of the 173 pig prestations made by the 64 men. These 13 men I observed to be the Atamo most able to mobilize labor. While some of them took leadership roles only in feasting activities, others were both feast givers and mission and village government leaders, and all were influential people in most aspects of Atamo life.

2. New Leadership Roles

New leadership roles have been introduced into the Atamo area since the time of initial contact and the number of roles has increased as the range of activities in which people engage expanded. Village officials, as already noted, were appointed by the colonial administration. Although their function was probably unclear at first, they had gained
knowledge of the ways of Europeans, whom Atamos reportedly feared. Informants claim, the first village officials persuaded several established big-men to support their efforts in creating a line village. Gradually, the officials themselves became recognized as feast-givers and they and their followers constituted the usual residents of the line. The same reportedly occurred among Simeku speakers when a man not recognized by the colonial administration as an official created the half-line.

Other men who left the area also became knowledgeable in the ways of Europeans. Catechists, as reported above, were trained by the mission and returned to the area to teach and hold services. As more people became Catholics, the influence of these men grew. Catechists reportedly sought and gained the support of men with 'names' and although many of the feast givers were not baptized before the war, their children were.

After World War II, with a decline in the number of established feast givers, village officials and catechists emerged as the most prominent leaders. Residential and marriage data reveal that they arranged marriages and encouraged people to attend church and go to school.

As already stated (Chapter VI), there was an increase in mission activities after the war. This may have resulted from what some informants claim was a belief that Catholicism would provide a means to a life style like that of Europeans. Catechists, as those with the greatest knowledge of the Church and its teachings, would have been the most qualified leaders for those wishing to achieve that life style. In addition, catechists were themselves feast givers, or had the support of established feast givers.
In the early 1960s, some Atamo men introduced the teachings and activities of a cargo cult which was flourishing in another village area six miles southeast of Atamo. The cult reportedly combined some Christian teachings with ancestor worship and its leaders claimed both knowledge of the ideologies on which the cult was based and the ability to communicate with supernatural beings, both Christian and others. During the period when the cult was active, the leaders, informants claim, were able to mobilize many Atamos, some of whom now claim they were not convinced of its efficacy, for their activities.

In 1963, the grass-roots political movement, mentioned above, was started. Originally it was known as the 'society for all Eivo' and was, according to some informants, considered an alternative to cargoism for the achievement of a better way of life for Atamos. It gained the support of former cult leaders and of feast givers in the area. The most prominent leaders of the movement met with Eivo and Simeku leaders from other areas as well as with political leaders from other areas of Bougainville where societies were also being founded. The leaders of the movement and their most avid supporters who were known as 'committeemen', collected donations and organized public works projects. The society called village meetings, which, according to the former leaders, were held to discuss 'customs' and to decide what sort of government Bougainville should have. Part of the society's program was the establishment of Atamo 'town' which was to be a settlement for all Atamos and which was reportedly intended to be a prototype for all Eivo and Simeku village areas. The 'town', public works projects and meetings, informants claim, were intended to bring Atamos a better way of life.
One of the leaders of the society in Atamo was also its Local Government Council representative to the Kieta Council. While a member, he reportedly marshalled support for the creation of an Eivo Council of which he later became President.

Less than two years after the Eivo Council was established, this same man began the Eivo Village Government Assembly. The Assembly was to be a government body which included not only the younger men who were experienced with Council affairs, but also older more established feast givers. In addition, the Assembly was to be part of the newly created Bougainville Provincial Government's local government scheme. While I was in Atamo, the Assembly met monthly at Atamo and discussed 'customs', public works projects and Provincial Government affairs including the secession of Bougainville from Papua New Guinea.

The members of the Assembly from Atamo included men, all of whom were active feast givers. Of the thirteen men mentioned above who had presented more pigs and had given more feasts than other adult men in Atamo, five held positions in the Assembly. Three others were vocal supporters and an additional two contributed labor to Assembly work projects. Eight of the thirteen most established feast givers lived in Atamo 'town' and claimed the 'town' was the settlement of the government and would facilitate the success of the Assembly and the attainment of a better way of life for Atamos.
NOTES TO CHAPTER VIII

1. The term 'big-man' was reportedly applied to both established feast givers and to managers of land. There was apparently no terminological distinction made and in most cases 'big-men' were both feast givers and land managers.

Informants generally agree on who among the living population gives feasts and who does not. The relative status of those with 'names' for preparing and presenting feasts, however, is not a matter on which there is much agreement. There is even more disagreement on the relative status of 'feast givers' of the pre- and early contact periods. It is difficult, therefore, to determine when the term 'big-man' may have been applied. Today, the term is rarely used in its Eivo and Simeku forms. The Neo-Melanesian term 'big-man', however, is used. There are also a series of other Pidgin lexemes used including 'leader', 'committee man', 'councilman' and 'head-man'. These are applied to individuals who hold or held offices in modern political organizations. Most of the individuals to whom these terms are applied are also established feast givers.

There are feminine forms in both Eivo and Simeku for what I gloss as 'big-man'. Both male and female informants claim these terms have rarely been used. In the past they were sometimes applied to the wives of 'big-men' and may have implied that the person to whom they were applied was a manager of a land tract. Informants of both sexes claim, however, that men generally manage land.

2. Other rites of passage for which feasts were made include first pregnancy, first menses and the birth of a first child.

Crop rituals for which feasts were made include the appearance of new almonds and the first harvest of a number of crops including almonds.

3. Those who may be considered entitled to receive a feast include a wide range of kinsmen of the deceased. Eivo speakers claim that in most cases the beran of the deceased, who are children sired by males of the same sib as the deceased's father, are preferred recipients. Simeku speakers, on the other hand, claim real or classificatory mother's brothers of the deceased are preferred recipients. Individuals who played some role in the burial of the deceased are also favored.

4. The estimate of two years as an average time between a decision to make a feast and its execution is based on residential and feast history data, as well as observations I made while in the field.

5. Time expenditure data for the feast mentioned in the text are based on my observations of preparation during the period September 1975 and January 1976. Preparations observed included: hunting, almond
gathering, house, food platform and pig pen construction, slit gong carving, sago flour production, harvesting coconuts, betel nut and garden produce and food preparation.

6. Life-time feast histories were gathered from all males usually resident in the Atamo area during my stay who were either married or widowed.

7. I do not wish to imply that Catholic clergy or other mission personnel fostered the belief that by following the teachings of the Church and participation in its activities would bring Atamos any sort of material reward. Informants claim that priests at Manetai mission condemned this notion whenever they became aware people believed it.

In a paper entitled "Catholicism, Cargoism and Governmentism," now in preparation, I deal with the changing religious and political ideology prevalent in Atamo during different periods after World War II. In it I show that Atamos borrowed concepts and phrases from various sources and reinterpreted them to fit their own views of how one achieved what Atamos say is a European standard of living. This practice may have resulted in Atamos interpreting statements made by mission personnel and Provincial and National level political leaders as support of their religio-political movements.
Prior to European contact Atamos reportedly occupied the western, southern and southeastern portions of the valley they shared with Kanavitus (see Figure 8). Their settlements were located on inland ridges at altitudes between about 650 and 2,000 feet above sea level. Ridges nearer the coast, the coastal plain and alluvial land in the valley floor were unoccupied although informants claim these areas were used for hunting and gardens.

Movement into the Atamo area by Eivo and Simeku speakers from other areas is generally described by informants in two forms: (1) sib and sub-sib migration histories; and (2) migrations of individuals for marriage. Both indicate that most movement into the area was from the south and east. Some migration histories trace the sibs of speakers of both languages to Siwai and Buin. Others begin in the Nagovisi language area with some moving through Nasioi speaking areas and others directly into Eivo territory. Most Eivo speakers in Atamo trace their recent origins to the western side of the Crown Prince Range as do some Simeku speakers. Others came in from areas to the east and northeast where the villages of Korpei and Boira now stand (see Figure 9).

Some sibs are recognized as having arrived in the area before anyone else, while others are said to be of relatively recent in-migration. Of the nine sibs represented in the area at contact, seven reportedly
Figure 8. Pre-European Contact Settlement Areas in the Atamo Valley
Figure 9. Sub-Sib Migrations into the Atamo Area
(Source: Sub-sib Migration Histories)
have migrations histories known by informants. Three of the seven are said to be recent in-migrants (i.e., within about +4 generations of the present adult members).

One of the three recent in-migrant sibs is said to be the only one of the nine represented at contact that did not have a spirit shrine in the area. This is cited as evidence of the sib's recent arrival. Members of this sib claim their ancestors were 'pulled' into an Atamo Eivo settlement area from a Simeku area about 7.5 kilometers east of Atamo. The story of their in-migration, told by the most prominent male member is as follows:

The in-migrant sib (e) and the 'pulling' sib (h) were of the same moiety. A marriage was arranged between a male affine (sib b) of the 'pulling' sib and a woman (sib e) from this Simeku area to the east. Sib-mates of the in-migrating woman (sib e) contended that she really could not move to the Atamo area because she had no land. The 'pulling' sib (h) then gave a portion of their land (two ridges) to the woman they wished to 'pull'. The woman came to the Atamo area and was later followed by some of her sib-mates. When members of yet another sib (d) holding rights to the adjacent land tract heard about the land gift, they gave a portion of their land to the in-migrating sib (e). While the in-migrant sib (e) was living on the land they were given, more of their sib-mates joined them.

While the detail of other in-migrations is lost and Atamos know only where they came from and where they settled, it is possible that the other recent in-migrant sibs came to the area and acquired land in the same way. Moreover, it is possible that the in-migration of others sibs were not group moves, although they are described in such terms as is the in-migration of the sib in the history presented above.

Sub-sibs of sibs already represented in the Atamo area at contact are also reported by informants to have 'recently' in-migrated. Four of the nine sibs in Atamo at contact had two or more named sub-sibs; the other
five claimed sub-sibs in other areas. No sib fission is said to have taken place within the Atamo area and the presence of two sub-sibs of the same sib is said to have resulted from fission elsewhere and separate in-migrations. In some cases, the sub-sib initially in the Atamo area reportedly 'pulled' their sib-mates from other areas. Informants claim that common descent categories were emphasized by the 'pulling' political leaders, who as noted above, extended land rights to in-migrants. In other cases, in-marriage and a land gift is said to be the reason for their presence.

Informants report that there were settlements on ridges nearer the coast at one time but these areas were not inhabited just prior to contact. Genealogies and settlement histories indicate that these ridges were abandoned as settlement areas in about 1900. Informants claim this resulted from fighting, but they do not know who was involved. Some informants say Torau speakers on the coast at Vito may have attacked these settlements and the survivors moved inland where the majority of Atamo settlements were located.

Further evidence of changes in the distribution of settlements within the valley and changes in the composition of these settlements can be seen by comparing the location of focal settlements occupied in 1920, and those said to have been occupied earlier (see Figure 10). Explanations of why some areas were no longer inhabited by 1920 vary. The southeast quadrant of the valley, the land along the border between Eivo and Simeku settlement areas, was reportedly inhabited by Simeku speakers of a sib that died out in the first decade of this century. Mixed language group settlements (i.e., those containing speakers of both languages) on the
Figure 10. Spirit Shrines and Focal Settlements in the Atamo Area c.1928 (Source: Residential and Place Histories)
ridges between Atamo and Kanavitu territory reportedly declined as big-men died and surviving inhabitants established new settlements in other areas or joined other settlement groups. Although the decline of these settlement areas is difficult to date and the details of their depopulation are lost, the information available indicates that the distribution of the population was changing prior to 1920 and that the processes which resulted in the change were similar to those occurring just prior to contact.

**Settlements in 1920**

The distribution of households and settlements in the Atamo area in 1920, the earliest date for which area settlement reconstructions were possible, is shown in Figure 11.1. The language group boundary was sparsely populated, but as noted above, Eivo and Simeku speakers had resided in settlements containing speakers of both languages previously. The settlements in the center of the valley (marked e6 and e10 in Figure 21) were the only 1920 settlements containing both Eivo and Simeku speakers.

No settlements were located more than a half mile from a spirit shrine. Seven of the total of seventeen settlements were located on or directly adjacent to a shrine with which they were associated. All seven were 'strong' places with histories of continuous or repeated habitation. The spirits residing in the shrines, informants claim, gave strength to the residents of these strong places which was the reason people continued to occupy them.

Settlements ranged in size from one to ten households with a mean of about 2.5. They contained an estimated population of about 165 or
Figure 11. Distribution of Atamo Households in 1920  
(Source: Life-time Residential Histories)
3.8 persons per household. Two Eivo settlements contained more than one household and all but two of these were headed by polygynously married males, all of whom were reportedly big-men. Five Simeku settlements contained more than one household. There was, however, only one polygynous marriage in a total of nineteen Simeku households and the man and his two wives lived in a two household hamlet. Probably as a result of the relative frequency of polygyny of Eivo speakers, their households were generally larger than those of Simeku speakers. Eivo households had an estimated 4.0 persons per household whereas Simeku households contained an average of about 3.6 persons per household.

Only one settlement had more than four households. This was the Simeku focal settlement of Toriana (sl in Figure 11). It reportedly contained two sub-settlements, one containing four households, the other containing six. Each was associated with a separate spirit shrine and two sibs held title to the land, one to the upper portion of the settlement and one to the lower portion. The entire settlement contained three feast givers. Toriana reportedly had been large since c.1915 and continued to be so through about 1934. During that period, it contained from seven to eleven households and its presence gave the settlement pattern in the southern end of the valley a character different than any other area.

Sib composition of the 1920 settlements varied, but of those containing more than one household (eleven in number), ten had residents from more than two sibs. As noted above, informants from both language groups talk about settlement groups of the past as if they were sib groups, but usually note that individuals lived with their affines (in
addition to spouses). The presence of individuals from more than two sibs is generally explained in terms of kin or affinal relationships: (1) polygynous marriages; (2) affines of affines or moiety-mates; and (3) kinship relationships such as real or classificatory parent-child or mother's brother-sister child.

Sufficient genealogical data are lacking to allow a complete description of the kinship relationships among settlement mates. The data I was able to gather indicate, however, that there were primary and secondary kin relationships linking household heads of those resident in multi-household hamlets. The majority of the 20 links I was able to trace (out of a total of 70 possible links) were parent-child, sibling or mother's brother--sister's child.4

A complete description of the relationships between the inhabitants of settlements in 1920 and the land on which those settlements were located is also limited by the lack of available data. Based on associations between sub-sibs of household heads and their spouses in 1920 and sub-sibs now claiming title to the land on which these settlements were located, it appears that about 76 percent of the households could claim full or provisional title through either males or females. Although the percentage of households from both language groups with title to land was about the same, Eivo speakers tended to claim land more frequently through males than females: Ten of eighteen Eivo households holding title to settlement land claimed it through the male head of household and eight claimed it through their wives. Simeku households, on the other hand, tended to reside on land claimed through females (8 of 15 households claiming title to settlement land in this way).5
The political situation in the settlements of 1920 is difficult to discern. Opinions on the relative political status of individuals in the 1920 population held by my informants varied. From the data available, however, it is possible to identify individuals who were active feast givers, and from the distribution of feast givers and the size of their settlements shown in Figure 12 it is apparent that the feast givers tended to reside in settlements of more than one household. There were eighteen feast givers in forty-three households resident in seventeen settlements. Only one was resident in a single household settlement. The largest settlement, which contained ten households, was the only settlement with more than one resident feast giver.

The cross-sectional data on the size and composition of settlements, while providing information on what the settlement pattern and residential groups in Atamo were like at one point in time, explain neither how these came to be nor how frequently they changed. It is clear that: (1) groups varied in size and composition; (2) they lived near spirit shrines in 'strong' settlements; (3) they are described by informants in terms of kinship relationships among the members; (4) most households held full or provisional title to settlement land; and (5) political leaders tended to live in larger settlements. How much these factors contributed to the decisions which people made concerning where and with whom to live, and which determined the size, distribution and composition of the settlements of 1920, is not discernible.

Changes in Residential Group Composition and Settlement Pattern

Changes in residential group composition resulted from the addition of individuals to residential groups through birth and in-migration and
Figure 12. Settlement Size and the Location of Feast Givers in 1970
(Source: Life-time Residential and Place Histories)
from the loss of individuals through death and out-migration. Settlement pattern, on the other hand, changed as a result of the addition and loss of houses as new households were established, as households were dissolved through the death of a member or through divorce, and as households changed their residences. Data on changes in residential groups and settlement pattern indicate that both changed largely as a result of individuals and households shifts in residence.

Two types of changes in the location of households and individuals prior to European contact can be distinguished from the data available: (1) short term cyclical changes in residence which did not result from decisions to abandon settlements or to move to another; and (2) more permanent shifts in places of residence which resulted in changes in settlement pattern.

1. Short Term Changes in Residence

Moves of households and individuals which did not result in a long term change in their usual places of residence or their residential group affiliation were generally made to harvest almonds, to hunt, or to clear land for gardens. In most cases individuals and households left a settlement to clear land or to hunt or to harvest almonds and then returned to their usual places of residence when their tasks were completed.

Most gardens of the early 1920s were reportedly located within about a mile of settlements. Individuals alive in 1920 report that their households' gardens were located on or adjacent to the ridges on which their settlements were. Informants claim that stays in the bush to clear garden land generally lasted no more than a week or two at most.
Temporary houses and leantos were constructed at garden sites to serve as shelter. Occasionally garden houses were made more permanent when individuals decided to leave a settlement in which they were living and move to their garden sites.

Almond harvests, as already stated, drew individuals and households to bush areas for periods of up to two months. Although I was unable to determine how often people moved to harvest almonds or how long they remained away or what areas were harvested in a single season, data from three focal settlements inhabited during the period 1920-24 give some indication. Informants who lived in these three settlements, pictured in Figure 13, claim that the almond areas shown were harvested regularly (perhaps yearly or every two years) by at least some of their settlement group mates. If a feast was in preparation, they claim, some residents of these settlements would remain while others moved out to almond areas to gather nuts.

Hunting, informants claim, was done when feasts were being prepared. Occasionally, hunting would be done while almonds were being gathered. Sometimes, however, trips were made specifically to hunt opossum and pigs for feasts, and individuals and whole households relocated to almond areas and other bush areas for periods of up to a month or two. Occasionally, informants claim, they would leave the Atamo valley and travel to areas on the western side of the Crown Prince Range.

2. Changes in the Size and Distribution of Settlements: 1920-1924

The most complete picture of pre-European contact change in the size and distribution of settlements for the Atamo area as a whole which could be reconstructed is for the five years immediately preceding
Figure 13. Three Major Settlements in the Atamo Area and Almond Places Associated with Them
contact (1920-1924). (See Figure 14.) Although there appears to have been a great deal of change during the period I could find no indication that the processes from which it resulted or of which the change was the visible result, were unusual. The only event which was in any way unusual was the arrival of the punitive expedition in c.1921 and this reportedly affected only two settlements (e1 and e2 in Figure 14). The rest of the change in settlement pattern reportedly resulted from what my informants said they considered normal events and decisions and considered similar to what they had heard happened before 1920.

Changes in the size and distribution of settlements from 1920 through 1924 resulted from: (1) the establishment of new households, generally through marriage; (2) the dissolution of households, generally through the death of either the household head or his spouse; and (3) the movement of households.

Although the net increase in the number of settlements (only two) and the number of households (also two) was small, most settlements underwent change in size and composition. Of the 17 settlements which were present in 1920, only two exhibited no net change by 1924. One of these underwent no change at all while the other gained a household through marriage and subsequently lost it through out-migration.

The total change in settlement size and composition which was attributed to the establishment or dissolution of households was small when compared with that attributed to household movement. Of the 43 households in the 1920 population, four were dissolved as a result of a death, whereas 23 changed their usual place of residence by moving (see Figure 15). In addition, one of the five new households established
Figure 14. The Distribution of Atamo Area Households in 1920 and 1924 Compared
(Source: Life-time Residential Histories)
Figure 15. Household Movements 1920-1924
(Source: Life-time Migration Histories)
through marriage also changed its residence, bringing the total to 24 household moves over a period of five years.

Although some settlement groups simply shifted the location of their settlement, others changed in size and composition. Of the sixteen hamlet groups which either changed in size or location, three changed their place of residence and underwent no change in size or composition. A fourth increased in size by the establishment of a household through a marriage of a resident female and an in-migrant male. All other settlement groups, a total of ten, either increased or decreased in size or contributed to the growth of a newly established or existing settlement through movement.

It is clear from the household movements plotted on Figure 13 that (1) the movement was directed into some settlements and out of others and (2) the bulk of the movement was between adjacent areas and over short distances. Some of this movement, as stated, contributed to the growth of some settlement groups and the decline of others. Some movement resulted in shifts in the location of settlement groups. Why did movement occur and why did some result in consolidation and some in dispersal and some in simple shifts in the location of settlement groups? By examining case material on localized changes in the size and distribution of settlements, the factors influencing the different kinds of change become evident.

**Case I:** Rikumori Hamlet (ell on Figures 15 and 16)

Rikumori hamlet provides a focus for the most dramatic illustration of the consolidation of any Atamo area settlement groups for the years
Figure 16. Household Movements into Rikumori 1921-23
1920 through 1924. It is also one of the few settlements for which I was able to gather complete enough data on all inhabitants to understand what had occurred.

In c.1920, there was no settlement at Rikumori. By c.1923, Katepato, a provisional title holder to Rikumori land (sib e), established a hamlet. There had been sickness at his former settlement (e6 in Figure 16) which had caused the death of an old woman, and Katepato wanted a good place, free from misfortune, in which to make a pig feast. He was married to two women, both of the same sib (a), one from the Atamo area and one in-migrant from the Karato area.

Besiatuan (sib b), Katepato's MMBS, who was also living at e6 with his two wives (both sib d) helped establish Rikumori. Besiatuan had in-migrated to the Atamo area as a child after his parents were killed at a settlement near where Kopikiri village is now located (see Figure 7 above). After his marriage to the two women of sib d, he had moved to e6 where he had been given use rights to land because his father was of sib e, whose members were provisional title holders.

The two men, Katepato and Besiatuan, reportedly traveled annually to the Karato area to gather almonds. Besiatuan's parents were married in the Karato area and he had almond trees there. While at Karato, Katepato convinced a man, Penuma, who was his Karato wife's sib-mate and who was married to a sib-mate of Katepato (sib e), that they should move to the Atamo area where sib e had land. They moved to e7, initially, and then to Rikumori (Figure 16). Katepato then arranged a marriage between his MZD and another man from Karato, Nesinua, who in-migrated for marriage.
The next almond season Katepato and Besiatuan returned to Karato to harvest almonds. They visited Katepato's sib-mates at a settlement which was on the decline because the big-man there had died, and convinced another man, Akamoko and his wife to join them at Rikumori. Akamoko was Penuma's brother and Akamoko's wife was a member of Katepato's sib. She was said to be a provisional title holder of the land at Rikumori.

Apukapunua, brother of Penuma and Akomoko, was living in settlement e9, less than a mile southeast of Rikumori (Figure 16). His two wives were members of sib c and living on land which informants claim was purchased by sib c from sib h. He was living with an affine with whom he did not get along. When his brothers moved to Rikumori, Apukapunua left e9 and moved there so he could help Katepato with the feast he was preparing.

Akupekato, another brother of Penuma and Akomoko was living at e10 (Figure 16) on his wife's land with a big-man of his wife's sib (h) and a female sib-mate married to a man from sib c. The big-man was old and the hamlet had been on the decline for some time. When the big-man died, Akupekato began spending more time with his brothers helping Katepato with the feast he was preparing. Akupekato was known to be a man who helped people with feasts and he lived in numerous settlements helping several big-men. When the man from sib c, who was the only male left at e10 besides Akupekato, died, Akupekato moved to Rikumori.

In the course of about three years, Katepato built Rikumori up to a settlement of seven households. At its height, Rikumori contained a person born and raised on the land which was the only tract sib e could claim in the Atamo area. Katepato pulled his female sib-mates in from other areas. Of the three he 'pulled', two were of his sub-sib, and
their ancestors had lived on Rikumori land before they migrated to the Karato area for marriage. Their husbands were all brothers and the heads of the additional households that joined Rikumori were also their brothers, but their wives held no title to the land. All of the in-migrants who came after Katepato and Besiatuan established the settlement, came from hamlets which were either known to be on the decline or from small one or two family hamlets with no feast givers present. Only one of the five households which joined Rikumori after it was established was a post-marital residence move. The others were moves made by complete households which came to help with the feast or to claim land to which the adult female members had some rights.

The dissolution of Rikumori provides an illustration of how this process occurs and some indication of how quickly a settlement group can disperse when the occasion for the consolidation, a feast in this case, has passed and the consolidator has left. Therefore, before dealing with an example of consolidation from an Atamo Simeku settlement and a more general treatment of household movement for the entire area, the dissolution of Rikumori is described.

After the feast for which Rikumori was reportedly founded had been presented, Apukunua abandoned his house at Rikumori and established a new hamlet at settlement e19 (see Figure 17). Informants report that Apukunua joined Rikumori only to aid with the feast and when it was over, he returned to land to which his wives held provisional title, to raise pigs for his own feast. The land had reportedly been purchased by his wife's sib-mates and her title to the land was fairly secure.
Figure 17. Household Movements out of Rikumori 1925
Katepato, the hamlet founder, reportedly thought his pigs were not doing well at Rikumori, and, because he was preparing for another feast, he moved to another area. The land on which his new settlement (e21) was located, informants claim, belonged to his first wife, who held full title. While at e21, Katepato married a third wife, sister of his second, and she joined him at e21. Penuma, who was a sib-mate of these two sisters, accompanied Katepato in the move to e21.

After Katepato left Rikumori, Besiatuan returned to e6, where he and Katepato had lived prior to the establishment of Rikumori. Informants report that Besiatuan had maintained a house at e6 while at Rikumori and that he really liked the settlement at e6: his pigs grew well there and it was land he had been given.

Akupekato (sib a) left Rikumori when Katepato did and joined a man of another sib (c) whose sib-mates had lived with Akupekato before he joined the settlement group at Rikumori. He reportedly still spent time at Rikumori but shifted his usual place of residence to e20 (Figure 17).

Akamoko and Nesinua remained at Rikumori after the others had left. Their wives were reportedly told by Katepato that Rikumori was on their land and that they should remain there while he went to use his wife's land.

Thus, after being built up to a total of seven households over a three year period the settlement group at Rikumori was reduced to two households in another two years. Katepato had 'pulled' sib-mates from other areas and settled them on land to which he claimed they had rights. Both households which remained at Rikumori after c.1925 were in-migrant women who had been settled on 'their land'. Those without rights to land left when Katepato moved to his wife's land. How long
Rikumori would have remained a large settlement if he hadn't left is unknown. Even after the settlement group dissolved, however, those that remained at Rikumori continued to aid Katepato and according to my informants were considered his followers.

Case II: Kobiaka Hamlet (s3 in Figures 15 and 18)

Narea was a man of sib b who was born and raised at the Simeku focal settlement of Toriana (sl in Figure 18). His parents had died when he was a young adolescent and he and his brother and sister became members of their classificatory father's household. This did not work out and after an argument with his classificatory father, Narea and his brother established their own household.

In c.1919, Narea married a woman of sib f, also from Toriana, and the couple lived in Narea's house at which his brother continued to eat and sleep. Narea reportedly associated most frequently with his wife's father, Kengkara, who was his sib-mate (sib b). A year or so after Narea's marriage, he established a new settlement at Kobiaka (s3) to prepare a memorial feast for his father. Another sub-sib of Narea's sib claimed full title to the Kobiaka land, but no one objected when Narea used it.

In c.1920, Kengkara, Narea's wife's father, built a house at Kobiaka but continued to spend some time at his house in Toriana. At about the same time Narea's brother Ben married a woman of sib f from the Paura area where Narea's mother had originated and the newly wed couple moved to Kobiaka with Narea and Kengkara. Narea, Kengkara and Ben convinced another sib-mate of theirs who was living at Toriana to come and join
KEY

- Household location in 1920
- Household which had not moved by 1924
- Location of household which had moved by 1924
- Female who moved for marriage

Figure 18. Household Movements into and out of Kobiaka (S3) 1920-1924
them at Kobiaka to help them with the feast. This man built a house there but continued to spend most of his time at Toriana.

Thus, over a period of about two years, Narea was able to attract two complete households from Toriana in addition to his brother and his wife, who moved there after marriage. The settlement group did not, however, remain together long. Once the feast was over, the sib-mate of Narea and Kengkara abandoned his house at Kobiaka. A year or so later, Narea's wife, Kengkara's daughter, died in childbirth and the hamlet was abandoned altogether for a short period and everyone moved to Toriana.

Not long after their return to Toriana, Narea married another daughter of Kengkara and the settlement at Kobiaka was re-inhabited. Initially only Narea and Ben moved back and lived in Ben's old house. In c.1925, when the feast being prepared for Narea's first wife's memorial was in the final stages of preparation, Kengkara returned to Kobiaka. He stayed for the feast but maintained his usual residence at Toriana. Ben and Narea remained at Kobiaka for about two more years, after which it was abandoned because the pigs were doing poorly. Another hamlet was established less than a mile away on the same land tract.

3. Factors Influencing Changes in the Size and Distribution of Settlements

The case material from Rikumori and Kobiaka and data on other hamlet groups in Atamo during the period 1920 to 1924 indicate that there were conditions which favored: (1) the growth of settlements; (2) the decline of settlements; and (3) the maintenance of settlements at a given site.
The reasons given for moves by informants made between 1920 and 1924 (see Table 3) and an examination of conditions in settlements from which and to which households moved reveal that settlements tended to grow when:

1. a big-man was rising to power and gathering a following;
2. a big-man was preparing a feast;
3. there were individuals and households capable of being 'pulled', either locally or from areas in which the big-man or his followers had close kinsmen and/or with whom they had frequent interaction.

The conditions favoring the growth of settlements were off-set by conditions favoring the dissolution of settlements. These were:

1. when misfortune, usually in the form of illness, death or pigs not growing well befell a settlement group;
2. when a big-man died or emigrated;
3. when feasting activity was at a lull;
4. when few members in a settlement held secure title to settlement land;
5. when there was competition among residents for 'renown' or a political following; and
6. when settlement group members shared few kin ties.

The tendency for settlements to grow and the tendency for settlements to decline or dissolve resulted from the movement of households and individuals. This movement can be viewed as the observable results of individuals' decisions on where and with whom to live and when to move. The conditions under which households tended to move were those listed for the decline of settlements, which appear to have raised the propensity of households to move. The direction or destination of a moving household appears to have been determined by considerations of land tenure, kinship and leadership. As a rule, households tended to move to land to
Table 3
"Reasons" for Moves 1920-1925

<table>
<thead>
<tr>
<th>Reasons Given by Informants for Household Moves</th>
<th>Eivo</th>
<th>Simeku</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ To establish a new hamlet for pigs</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>- Pigs not doing well; hamlet moved</td>
<td>0</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>+ Aid in feast preparations</td>
<td>4</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>+ Pulled by a consanguine or affine</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>+ Seek use of other land</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>+ Move nearer garden</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>+ To harvest almonds</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>- Illness in settlement</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>- Death of a settlement mate</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>- Anger or social discord in settlement</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>- Punitive expedition</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>- Avoiding line village membership</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>+ Move to another line</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>+ Wage labor (out or return)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>+ School related (out or return)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>+ Establish a plantation</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>+ Seeking health care (out or return)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Unknown</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

+ = Reason for leaving a settlement
- = Reason for moving to a settlement
which they held secure rights. Most households had rights to at least two parcels of land and the quality of relations between the moving household and those living on or managing the land influenced decisions on where to move. In addition, heads of households who had aspirations of gaining a following tended to move to land they could control.

Just as the number of close kinsmen resident in a settlement influenced the propensity of households to move, the location of close kinsmen also influenced the destination of household moves. Mother's brother--sister's child and parent-child relationships between either the head of household or spouse and an alter appear to have been the most important. There were also the relationships reported as having been stressed by leaders when recruiting followers.

Leaders actively recruited followers, and households with a high propensity to move, or which had already decided to make a move, tended to move into their settlements. As noted in Chapter VIII, and as evidenced by the case material presented above, leaders used kin relationships as rhetorical resources and granted land rights to attract followers and therefore it is often difficult to discern whether kinship, land tenure or the persuasive powers of political leaders had the greatest influence on the destination of moving households.

As long as the nuclear family around which the households in Atamo (during between 1920 and 1924) remained intact, the members moved as a unit. Decisions to move were reportedly made by the heads of households. This contention was supported by the fact that in relating life-time residential histories, female informants could give few reasons for moves and most denied having known the reasons at the time decisions were made.
Females may have been consulted or offered opinions, but residential decisions concerning household moves were and are considered male decisions.

When the marriage linking the couple which formed the core of a household was dissolved through the death of one partner, the propensity of the remaining household members to move was high. A male who survived the death of his wife maintained an independent household. He had a lower propensity to move after a subsequent marriage unless his relations with his settlement mates were strained or unless the status of the head of the household in which his intended wife was living was higher than his own. Females who survived their husbands were generally absorbed into an existing household until they remarried. Immature children who were members of households dissolved by the husband's death tended to remain with their mother and to move with her if she migrated for marriage. If the father was the surviving parent, children were as likely to move into a mother's brother's household as they were to remain with their father unless: (a) he was married to more than one woman, in which case the household remained intact; or (b) he married his deceased wife's sister soon after his wife died; or (c) he did not move for subsequent marriage. Adolescent children of a dissolved marriage had a higher propensity to move and appear to have been the most mobile segment of the entire population. This was especially true of males who attached themselves to various households in different settlements until they were married.

Post-marital residence moves which, like other individual moves, contributed little to changes in residential group composition or
settlement pattern, followed the general pattern outlined in Chapter VI. All five marriages which occurred between 1920 and 1924 resulted in the creation of new households. Three males moved to settlements in which their wives were living before they were married, although one of the couples subsequently moved to a newly established hamlet containing kinsmen of both the bride and groom. One female joined her husband in his settlement. Two couples established residence in settlements in which neither of the partners lived before they were married. Newly married couples tended to live in settlements in which big-men or aspiring feast givers were resident and in many cases these men were reported to have arranged the marriages. The one polygynous marriage which occurred during the period resulted in the third wife moving to the settlement of her husband.
1. The reconstruction of settlements in the Atamo area before 1920 was difficult. Few of my informants were born before 1920 and even the ones that were could not give me data on settlements other than those in which they lived. Moreover, my genealogical data does not provide sufficient information on the area population to estimate the completeness of settlement reconstructions or to date changes in settlement composition.

2. My estimate of 165 for the Atamo population of 1920 is probably low. The first administration census figures available are for 1945 and Atamo reportedly had a population of 189. Considering the losses to the population during World War II, it seems likely that 165 is low. After cross-checking all my settlement reconstructions, genealogies and settlement histories, I am confident that I did not underenumerate the households in the area. It is more likely that I failed to obtain a complete record of individuals living in households. Attached elderly kinsmen and unreported children who were omitted from all my data sources probably account for a large majority of the individuals I missed.

3. Person per household averages are based on household reconstructions, which are probably incomplete (see note 2).

4. My genealogies provide few links in the +3 generation of living adults. Genealogies of individuals to whom living Atamos could not trace links are even shallower. Therefore I think settlement-mates in the Atamo area in 1920 were probably more closely related than my data suggest.

5. Although the percentage of Simeku households claiming land through females was only slightly higher than the percentage of those claiming land through males, this tendency persists through the 60 years for which I have settlement land tenure data. Moreover, it persisted during my stay in Simeku land use for subsistence and cash crops not only in Atamo, but also in Kanavitu.

Eivo households, on the other hand, tended to use land claimed through males for settlements' subsistence and cash crops. This included those in Atamo and those in Nasiwauwa.
Changes in the settlement pattern and in the patterns of individual and household movement after European contact were gradual. While a general nucleation in the area settlement pattern was occurring, movement and shifts in the size and distribution of settlements were also taking place. Over the fifty year period between European contact and the time I entered the field, there was a gradual increase in the importance of the line village for Eivo speakers and the half-line for Simeku speakers as focal settlements for the area population. These two settlements emerged as both population centers and as foci of religious and political activity. As the two centers were moved together and ultimately merged into a single settlement, the area population and the settlements in which it lived became clustered around this central place.

In order to understand both the form of settlement pattern change and the patterns of individual and household movement of which it was a result, I present the description and analysis of change in two parts. The first is an historical overview of settlement pattern change. It is divided into periods: (1) the pre-war period during which many features of the pre-European contact settlement pattern were maintained; (2) the post-war period during which the line village and half-line became the foci of modern religious and political activity; and (3) the "town" period during which the combined line and half-line became the largest single settlement in Eivo or Simeku history. Within each period
settlement pattern and movement are examined and a representative six-year segment is described and analyzed in detail.

The second part of the chapter consists of a summary of the changes in both the settlement pattern and the patterns of movement from 1920 through 1973. The size and distribution of settlement and the importance of the line and half-line as places of residence at eight different points in history are compared. In addition, the patterns of household and individual movements are examined and their relative contributions to changes in the size and distribution of settlements are analyzed.

The changes in both settlement pattern and patterns of individual and household movement have, as noted above, been gradual. The division of the initial part of this chapter into stages and the presentation of change through comparing settlement pattern at points in time and patterns of movement during certain periods are a means of describing a process which has been continuous. It is not meant to imply that there have been marked discontinuities in the changes described. Because I view patterns of movement and changes in settlement pattern as the results of individual decisions, the changes presented here are shown to be the cumulative results of individual decisions about where and with whom to live and when to move.

Pre-War Period

1. Settlement Pattern Change During the First Nine Years of European Contact

Settlement pattern was one of the first aspects of Eivo and Simeku life effected by direct contact with Europeans.1 The policy of colonial administration officers was, as Oliver (1973:100; 1955:15) describes for
Bougainville in general, to encourage the consolidation of settlement (hamlet) groups into larger settlements called 'line villages'.

The first two line villages in Eivo and northern Simeku-speaking areas were established around 1920-1921 on the coast at Bove and Alakabau (see Figure 19). Both settlements were inhabited by inland mountain dwellers. The former drew residents from northeast of where Kopikiri village now stands. The latter, Alakabau, drew residents from north of Nasiwauwa and Atamo. How exactly these settlement areas were brought under 'control' or how line village residents were recruited is unclear. However, the punitive expedition to the Atamo area, described above, was probably intended to encourage the few Atamos considered 'resident' at Alakabau by the administration to be present for censuses or to move to the coast, as well as to encourage them to contribute labor for road building.

As stated above, the first line village in the Atamo area was established at Kuauto in around 1925 by two men who had been away working on European plantations (see Figure 19). The village officials (kukurai 'head-men' and tultul 'secretary-assistant') built the first houses in the line village and reportedly encouraged others to do the same. Informants claim these men told tales of the "awesome" patrol officers and police who would come and enforce the rules set down by the village officials. The fear these tales instilled is said to have motivated people to join the village and have their names recorded by the white men.

By c.1929, there were reportedly sixteen houses in the line village, which constituted approximately 40 percent of the total households in the Atamo area (see Figure 20). However, only three households allegedly
Figure 19. Pre-war Line Villages Established Among Eivo and Simeku Speakers and the Areas from Which Residents were Recruited.
Figure 20. Atano Area Settlement Pattern in 1929
(Source: Life-time Residential Histories)
lived in the village and even these maintained hamlets nearby in which they cared for pigs. Other area residents built houses in the village but continued to reside in hamlets.

In part because of the location of the village, and in part because the village officials were Eivo, only two of the sixteen households with houses in the village were Simeku speakers. The heads of these households were reportedly friends of the village officials and it was through such ties that the Simeku speakers became members. During the early 1930s more Simeku speakers became "resident" in the line village by having their names recorded in the village book, but the line continued to be considered an Eivo settlement by Atamos.

The line village, like other focal settlement groups, moved (see Figure 21). The first line move occurred in c.1929 after the first head-man died and was replaced by a man who could claim no rights to Kuauto land, either himself or through his wife. Informants claim they do not know why the head-man moved the line but state that land tenure may have been a consideration. The second line village site, Pipiruko, was inhabited only a year or so when illness struck the settlement and the head-man decided it was a bad place and the village should be moved. The third site, Kumuru, was only a short distance from Pipiruko, but was on higher ground where, the head-man reportedly explained, the sickness would be blown away. Each time the line moved, the usual residents moved first and gradually those who were occasionally resident in the village shifted their houses to the new site.

During these early years of contact, the line village was little more than a focal settlement for the village officials and their followers.
Figure 21. Atamo Area Line and Half-Line Moves 1925-1976
(Source: Place Histories)
It also contained empty houses belonging to other area residents which were inhabited a couple of times a year when administration patrols came to the area. It was, however, centrally located and a settlement which, informants claim, belonged to no one in particular and in which everyone had the right to be.

The introduction of the line resulted in an increase in the number of households usually resident in the Atamo area. Some households migrated from other areas in the late 1920s and early 1930s and became more or less permanent Atamo residents. They came to the Atamo area for a variety of reasons, had their names recorded in the village book, and reportedly believed they were not permitted by colonial administration officials to leave. At least two households in-migrant from the Karato area were recruited by big-men who reportedly told them they should come to Atamo in order to join a line village.

In the early 1930s, administration patrolling became more regular and mission priests became added visitors to the line after initial mission contact in 1929. It was probably because of the increased frequency of outside visitors that more people began spending more time in the village.

2. Settlement Pattern and Movement 1933 to 1938

The size, distribution and composition of settlement groups in 1933 were not much different than those prior to European contact (see Figure 22). The line village contained no more unusual residents than settlements of the early 1920s and was, in terms of usual residents, smaller than one Simeku settlement in 1933. It did, however, contain an estimated thirty-one houses which remained uninhabited most of the time.
Figure 22. The Distribution of Households in 1933
(Source: Life-time Residential Histories)
There were five households reportedly resident in the line village in 1933. The heads of two of these households were the village officials. One of the other three had been resident in a hamlet on the site before the line village was established there. The other two households contained close consanguines or affines of the village officials. The line village residents constituted a group that was no different than any pre-contact settlement might have been in size or composition.

Approximately 71 percent of the Atamo area households had houses in the line village. The majority of these were Eivo speakers, 81 percent of whose households had domiciles in the village. Only 52 percent of Simeku households had houses in the line and most of these had joined the village after 1930.

Most hamlet dwellers with houses in the village were young to middle-aged couples. Most elderly householders avoided having their names recorded in the census books and never had houses in the line. Informants report that in general children were left in the hamlets with older adults when people went to the village for the census and when the mission priest came.

During the 1930s, informants report, unmarried adolescents spent more time in the village houses owned by hamlet dwellers than the heads of households or their wives. It also became a gathering place for young men who had been away for wage employment. For those who had been away from employment and those who had not, a pattern of moving to the line village and then out for employment emerged.

The settlement groups of 1933, including the line village, were slightly smaller than those present in 1920 and 1924. Twenty-one 1933
settlements ranged in size from one to ten households, the same as the settlements of 1920.

The composition of settlement groups, including the line village, was mixed and resembled the settlements of pre-contact times described in Chapter IX. A majority of the multi-household settlements contained members of three or more sibs. Seventy-four percent of the area households contained members, either male or female, who could claim provisional or full title to the settlement site land. Larger settlements tended to have at least one feast giver present.

Changes in settlement pattern and patterns of movement during the period 1933 to 1938 were not much different from those of the early 1920s described above (see Figure 23). The amount of change in settlements was slightly less for the later period. Only 14.3 percent of the settlements in 1933 remained unchanged in location, size and household composition, whereas 11.7 percent of the 1920 settlements remained unchanged over the period 1920-1924.

The only major difference between the settlement pattern change of 1920-1924 and that of 1933-1938 was that which resulted from the shift in location of the line village. Not only did the usual residents move to the new site, but those with occasional residences in the line abandoned their houses and built new occasional ones at the new site.

As in the 1920-1924 period discussed above, the majority of settlement change resulted from household movement. Household movement, which resulted in changes in usual place of residence, accounted for 88.9 percent of the increase and 86.9 percent of the losses in settlement households over the six year period (1933-1938).
Figure 23. Household Movements 1933-1938
(Source: Life-time Residential Histories)
Settlement groups (hamlet, line village and half-line groups) were consolidating and dispersing just as they were prior to contact. Of the twenty-one settlement groups present in 1933, only three experienced no change in size, location, or composition. The line village and one other settlement group moved, but neither experienced nor contributed to the growth or decline of settlement groups. Two other settlement groups changed in size due to the dissolution of households through the death of the heads of these households or their spouses. All other settlement groups (15 of a total of 21) either experienced or contributed to consolidation of, or decline in, size of settlement groups.

The line village group, which was reportedly considered Eivo, remained unchanged in size. It was, perhaps, more stable than hamlet groups containing as many households which, when they moved, tended to break up. The stability of the line may have been the result of both village officials being committed to line village residence and the acceptance by a few of the view that people should live in the village.

Among Simeku speakers, a 'half-line' (Figure 23) was introduced by a man who returned from wage labor employment on a European plantation. His justification for its establishment was reportedly that the Simeku speakers of the area should have their own large settlement like the Eivo line. He situated it nearer the Eivo line than the pre-contact focal settlement of Toriana (sl in Figure 23), informants claim, to make it easier for Simeku speakers to travel to the line for censuses. A result of the establishment of the half-line was that the large, stable settlement of Toriana was broken up as younger men moved to the half-line and older men maintained their residence at Toriana.
The reasons given by informants for household movements between 1933 and 1938 were much the same as those for the pre-contact (1920-1924) period described above (see Table 4). Pigs remained an important factor in decisions about when to move. Death of a settlement mate also appears to have stimulated movement. Anger or social discord in a settlement was reported as a cause of household dispersal, as it was prior to contact. People continued to be 'pulled' into settlements by kinsmen and to gather for the preparation of pig feasts.

Added to these reasons, which were also given for pre-contact moves, were those related to the half-line and line village. Both moves of the line and being 'pulled' into the half-line were given as reasons accounting for about 35 percent of the total household movement.

The movement of individuals, apart from households, was also influenced by European contact. The line and half-line appear to have provided legitimate places for post-marital residences other than the pre-marital settlements of either partner. Of the five individuals moving for marriage during the period 1933-1938, two were from a hamlet to the half-line. Neo-local residence in the half-line, which began during this period, grew in importance and has continued to contribute to the growth of post-contact type settlements.

Other types of individual (as opposed to household) movement contributed indirectly to changes in the settlement pattern. Of the individual moves I was able to discover, five were for marriage, two were for mission schooling, and nine were for wage employment. Absences from the Atamo area for wage employment of individuals leaving between 1933 and 1938 were as long as eight years. Because most of the men who
Table 4
"Reasons" for Household Moves 1933-1938

<table>
<thead>
<tr>
<th>Reasons Given by Informants for Household Moves</th>
<th>Eivo</th>
<th>Simeku</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ To establish a new hamlet for pigs</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>- Pigs not doing well; hamlet moved</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>+ Aid in feast preparations</td>
<td>6</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>+ Pulled by consanguine or affine</td>
<td>4</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>+ Seek use of other land</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>+ Move nearer garden</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>+ Harvest almonds</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>- Illness in settlement</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>- Death of settlement mate</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>- Anger or social discord in settlement</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>- Punitive expedition</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>- Avoiding line village membership</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>+ Move to Atamo line or half-line village</td>
<td>0</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Move of Atamo line or half-line</td>
<td>5</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>+ Move to another line village</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>+ Wage labor</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>+ School related</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>+ Establish a plantation</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>+ Health care</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Unknown</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

+ = Reason for moving to a settlement
-
= Reason for leaving a settlement
left for employment and schooling were of marriageable age, their absence probably served to reduce the rate of household formation. Because young married couples tended to reside in multi-household hamlets, wage labor probably also lowered the size of settlements.

3. Settlement Pattern: 1939 to 1943

Between 1939 and the outbreak of World War II both the line and the half-line gradually grew in size. Informants claim that after established feast-givers died, their wives, children and followers tended to move into the village and half-line. By 1941, the half-line contained at least nine resident households or about half the Atamo Simeku population. The line contained a lower percentage of the Eivo population, but by 1941 all Atamo Eivo households either owned or shared a house in the line village. Some Simeku households continued to maintain houses in the line, but when the half-line was moved in 1939, some Simeku owned houses in the line were torn down and not replaced (see Figure 21).

Household movement continued to follow the pattern described above with the frequency of moves into the line and half line increasing. Although the deaths of established big-men, mentioned above, may have been a stimulus for movement which was directed into the line and half-line, it explains neither why the big-men were not being supplanted by younger men as feast givers and attractors of followers nor what attraction the line and half-line provided.

One plausible explanation for the increasing frequency of hamlet to line or half-line movement is the increasing frequency of wage employment in the late 1930s and early 1940s. Some younger adult males, as already mentioned, were absent entirely for long periods. Others
worked for periods of a few months and returned. Although these short
term absentees may have been available to contribute labor to pig feasts
when they were home, they were probably not able to organize and execute
them. It is possible that young men achieved a new sort of 'renown'
through being "modern" by traveling, earning money, acquiring European
goods and living in the line or half-line.

A second possible influence on household moves was increased mission
activity just prior to the war which was focused in the line and half-
line. Mission trained catechists returned to the Atamo area in the late
1930s and built chapels, held services and taught catechism. Baptismal
records indicate that the number of baptisms increased as did the
frequency of visits to the line and half-line by mission priests (Manetai
to have occurred less than once a year whereas they averaged one every
two months in 1941.

World War II

Although fighting in Eivo and Simeku speaking areas was minimal, the
war greatly disrupted residential patterns for a period of about four
years. As already noted (see Chapter VI), the gold miner-cum-coast
watcher, Francais Roche, attracted Japanese soldiers to the Atamo area.
A forced migration of almost the entire population to the beach near
Vito followed Roche's death. Most households built houses in the beach
camps although they traveled to the Atamo area to tend their gardens.

When allied forces attacked the Japanese encampment near the beach
settlement, Atamos returned to their valley. They reportedly lived in
small, scattered settlements in the bush and only occasionally spent time in the line or half-line, which were still habitable.

After a year of 'living like opossums', as informants characterized their mobile existence, Atamos were encouraged by ANGAU (Australian New Guinea Administrative Unit) patrols to move to a refugee camp near the allied beach head at Torokina. Most of the population migrated to the camp where they lived for about four months, housed in dormitory-like structures with people from all over Bougainville.

In March, 1945, the Atamos were repatriated and a temporary village was constructed in which they lived until all Japanese soldiers were out of the area (Patrol Report: District H.Q. ANGAU, March, 1945).

**Post-War Period**

1. Settlement Pattern 1946-1949

   By mid-1946 a line village had been reestablished at Kumuru, the site of the line abandoned in c.1937. Why they returned to Kumuru and not to the line in which they had lived just prior to the war is unknown. Informants report they returned to their 'old place' at the insistence of the head-man.

   Some hamlets were reportedly still habitable, with houses needing only minor repairs. In some cases, people found their pigs, which had fend for themselves for as long as two years, still returning to their hamlets at night.

   Simeku speakers remained in the temporary line until around 1950 when they built a new half-line a short distance to the southeast. The temporary line and the 1950 half-line were on what had been Eivo land and were within a mile of the Eivo line.
By mid-1948, it appears that some semblance of the pre-war settlement pattern and life had been restored. Patterns of household and individual movement similar to those of the immediate pre-war years resumed. There were, however, some differences.

The population as a whole had declined due both to adult deaths resulting from the poor conditions under which people lived during 1944 and 1945 and a high infant mortality rate. Even by 1950, there were fewer households than there had been in 1938.

During 1944 and 1945, Atamos had experienced more exposure to foreigners and other Bougainvilleans than they had previously. They lived near Japanese soldiers in the beach camp where Atamos served as laborers for almost a year. In the refugee camp near Torokina, they had lived in close proximity with American and Australian military personnel and, perhaps more importantly, had been exposed to material resources, the quantity of which informants claim they had never thought possible. In the camp they received more attention from Catholic clergy than they had before the war. Some informants claim, as a result of these experiences, they made an association between European religion (Catholicism) and material standard of living. This association has played an important role in modern religious and political ideologies which developed in the 1950s and 1960s and had an impact on the settlement pattern.

2. Settlement Pattern and Movement in 1950-1955

The increased importance of the line and half-line as population centers is apparent in the settlement pattern of 1950 (see Figure 24). Approximately 32 percent of Atamo Eivo speaking households were usually
Figure 24. The Distribution of Atamo Area Households in 1950
(Source: Life-time Residential Histories)
resident in the line; and 50 percent of the Simeku speaking households were resident in the half-line.

All but one of the other settlements in the area had three or fewer households. This four household settlement was a labor camp for Eivo and Simeku speakers working at the gold mine in the Atamo area which operated between 1949 and 1954. The other fifteen settlements, all pre-contact style hamlets, contained an average of about 1.8 households. The mean for all settlements, including the line, half-line and gold mine camp was 2.7 households; higher than the mean for settlements of 1920, 1924, 1933 or 1938.

The composition of the line and half-line were, as might be expected, more heterogeneous in terms of the sib affiliation of residents and kinship relationships among settlement group members than any pre-contact settlement. This includes Toriana, the pre-contact Simeku focal settlement which contained as many households as the line of 1950. Five sibs were represented in the line and six in the half-line. There were few parent-child and mother's brother-sister's child links between households. This was due largely to young couples moving to the line and half-line at marriage while their older, close kinsmen remained in hamlets.

A change in the relationship between the size of the settlements and the presence of big-men had occurred as the line and half-line grew in importance. The line village of 1950 reportedly contained no usual residents considered 'big-men'. Active feast givers of this period, including the village officials, lived in hamlets where they raised pigs.
Some half-line dwellers cared for pigs at that settlement, but Simekus who were considered established feast-givers also lived in hamlets.

Land tenure for hamlet dwellers remained similar to that of the pre-war era, but in the line and to a greater extent in the half-line, the situation was different. The line was located on what was reportedly a land tract boundary where land belonging to members of three different sibs met. This, in itself, was unusual. Most households resident in the village could claim some rights to one of the three land tracts, but, from all reports, holding title to settlement land was of little concern to line dwellers although some individuals, mostly hamlet dwellers, preferred to live on their own land.

The half-line, as already noted, was located on what is still considered Eivo land and to which no household in the half-line could claim rights. However, because most Simeku speakers were from the Atamо area, all resident households could claim title to land within a mile or so of the settlement. Thus, despite the fact that households could not claim the land on which they lived, they could use land to which they held title for subsistence and cash crops, which they reportedly did.

During the period 1950-1955, changes in the settlement pattern reflected the increased importance of the line and half-line (see Figure 25). A smaller percentage of the 16 settlements existing in 1950 changed in size and composition compared to changes in settlements in the earlier periods despite a greater number of gains and losses of households among these later settlements. This, too, can be attributed to the increased importance of the line and half-line. Of the gains to settlements inhabited during the period 1950-1955, 52 percent were to line and
Figure 25. Household Movements 1950-1955
(Source: Life-time Residential Histories)
half-line settlements. Of the losses, about 54 percent were to line and half-lines. This compares with gains of 24 percent and losses of around 11 percent to the line and half-line settlements of the 1933 to 1938 period.

The importance of the line and half-line was also reflected in patterns of household movements. Of the 42 household moves which occurred from 1950 through 1955, 23 involved moves in or out of line or half-line settlements. Inter-hamlet moves involved only 12 households. All of the households in the line and half-line of 1950 moved when these settlement groups moved.

A feature of movement which did not exist prior to the war was household migration to expatriate plantations. As noted above, individuals had been leaving the area for wage labor since the early 1920s. Post-war household movement out to expatriate plantations followed the pattern of pre-war individual wage laborers of moving first to the line village and then out to plantations. Households, however, tended to build houses in the line and half-line before leaving and thus increase the number of structures in these settlements while the out-migrations for wage labor reduced the number of households actually present.

Another movement pattern which developed after the war which is not visible in the movement shown in Figure 25 is a circular migration of households out of the line to hamlets to raise pigs, followed by a return to the line after the pigs were killed. The presentation of feasts in the line and half-line during this period, even by committed hamlet dwellers, probably encouraged this type of movement. Just prior to feasts, organizers and individuals contributing labor reportedly gathered
at line or half-line for the final preparations. Feast givers constructed feast houses which were sometimes converted to living houses after a feast was completed.

The reasons given by informants for household movements are shown in Table 5. Most of the same reasons for pre- and early contact period moves were also given for the period 1950-1955. Movement of a line or half-line settlement group was, however, reported more frequently as a reason for household movements than previously. Informants describe decisions to move line and half-line settlement groups as being made by head-men, catechists and a few prominent big-men, some of whom did not live in the line or half-line. The decision for the line move of 1953 (see Figure 21 above) was reportedly made by the head-man so the line would be closer to a good water supply. Similarly, the half-line was encouraged by the head-man of the line and the mission catechist who founded a school on the new site to serve both line and half-line residents. Most informants reported the reason for moving their households was that the line and half-line were moved by others.

An addition to the reasons given for movements was "to establish a plantation." The increased interest in cash crops, specifically coconuts, in the early 1950s had already been noted. The household moves during the 1950-1955 period were the first made to establish plantation hamlets. Although plantation hamlets were few compared to the number of pig hamlets, such settlements were significant in influencing the size and distribution of settlements. This is so, in many cases, because households moved some distance to plant on land to which they held secure rights (see moves to settlement e52 in Figure 25). Moves to
Table 5
"Reasons" for Household Moves 1950-1955

<table>
<thead>
<tr>
<th>Reasons Given by Informants for Household Moves</th>
<th>Eivo</th>
<th>Simeku</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ To establish a new hamlet for pigs</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>- Pigs not doing well; hamlet moved</td>
<td>3</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>+ Aid in feast preparations</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>+ Pulled by consanguine or affine</td>
<td>5</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>+ Seek use of other land</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>+ Move nearer garden</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>+ Harvest almonds</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>- Illness in settlement</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>- Death of settlement mate</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>- Anger or social discord in settlement</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>- Punitive expedition</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>- Avoiding line village membership</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>+ Move of Atamo line or half-line</td>
<td>9</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>Move to Atamo line or half-line</td>
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<td>1</td>
<td>2</td>
</tr>
<tr>
<td>+ Move to another line</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>+ Wage labor (out or return)</td>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>+ School related</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>+ Establishment of a plantation</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>+ Health Care (out or return)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Unknown</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

- = Reason for leaving a settlement
+ = Reason for moving to a settlement
planchation hamlets in the 1950s and 1960s were all circular, as were household moves to pig hamlets, because households tended to return to the line village or half line after a period of a year or two.

Individual movement, apart from their households, exhibited a continuation of trends outlined for the 1933-1938 period. During the 1950-1955 period, all of the ten individuals who moved at marriage did so to the line or half line settlements. Of the fourteen individuals married during this period, nine moved from hamlets to the line indicating that in two cases both the bride and groom moved to the line after marriage. As a result, a total of seven new households were established in the line or half-line and none were established in hamlets.

During the early to mid-1950s, males continued to leave the area for wage employment. Administration census figures for the period report absences at census times ranged from three to fifteen and averaged 6.2 males and two females. It is likely that all females absent "for employment" were wives of males working on plantations, for the government, or for the mission, since I could find no evidence of females seeking wage employment prior to about 1970. The administration figures give some indication, therefore, of the number of single males absent for employment.

Individual absences for education are also given in administration census figures for the period. They ranged from two to nine per annum with an average of 5.2. Most individuals were adolescents who traveled to Manetai Mission School. This school, as noted above, was expanded in the early 1950s and this probably accounts for the increases of absences for education in the figure presented.
3. Settlement Pattern Change 1956-1964

The settlement pattern of 1955 was fairly characteristic of Atamo through around 1960 (see Figure 26). The line and half-line were within a quarter of a mile of each other. The number of hamlets at any particular time during the period was largely dependent on the number of households raising pigs. There remained a number of men who were active feast givers who lived in hamlets most of the time. Others lived in hamlets for a period of one or two years while pigs matured. When final preparations began for the feast, they moved to the line or half-line and the hamlets were abandoned.

Occasionally plantation hamlets were established but these numbered no more than two for any year until the mid-1970s. There was an increase in cash crop planting in the late 1950s, but in most cases this brought about no change in residence for the households involved who traveled to the plantation during the day and returned to their hamlets or line or half-line at night.

Households and individuals continued to move out to expatriate plantations, government stations, and missions for wage labor. Most of this movement continued to be in and out of the line or half-line, which was characteristic of most movement.

In the late 1950s and early 1960s the increased mission activity, and cargo cult activity, described above (Chapter V), drew households into the line and half-line. From informants' reports it appears these activities were intensive for periods of a month or two and then dropped off, being revived again several months later. This pattern resulted in pulsations in the size of the line and half-line populations. Hamlet
Figure 26. The Distribution of Atamo Area Households in 1955
(Source: Life-time Residential Histories)
dwellers with houses in the line or half-line, which most had, moved to
the line to participate and returned to their hamlets when there was a
lull in activities.

In 1960 and 1961, when cargo cult activity was at its peak, there
were few households resident in hamlets. When the activity ceased after
colonial administration officers arrested cultists in another area of
Bougainville, the number of households resident in hamlets increased.

During 1963 and 1964, the grass-roots political movement, 'the
society', described above, began. As part of its program, its leaders
began planning a 'town'. This was to be a large settlement resembling a
European style town in which Eivo and Simeku speakers would live like
Europeans. Informants claim an area near Manetai Mission was considered
as a possible town site for all of Eivo, but this plan was abandoned.
A site between the line and half-line was eventually agreed upon. The
town would, according to reports by former 'society' leaders, facilitate
an increase in the material well being of all Eivo and Simeku speakers.

The 'Town' Period


The settlement pattern of 1965 was that shown in Figure 27. Approx­
imately 91 percent of the area households resided in the line and half­
line. These two settlements were, by this time, separated by only a
few hundred feet.

Hamlets numbered six, but only four were pig hamlets. One of the
other two, which contained four area households, was also the site of the
village primary school. The other settlement was an aborted beginning of
the proposed 'town', which was shifted to its present location in 1968
Figure 27. The Distribution of Atomo Area Households in 1965
(Source: Life-time Residential Histories)
because, informants report, the site was more suitable and because the land belonged to a prominent political leader who encouraged the use of his land.

The four pig hamlets each contained households reportedly preparing for feasts. Four of the five most prominent feast givers of the period each had their own hamlet in which they lived with another household.

Hamlet composition resembled that of pre- and early contact settlements. Three of the four pig hamlets contained households related by primary kin ties. The school settlement and the aborted town settlement contained several households linked by close kin ties.

The line and half-line, by contrast, were heterogeneous in composition. They contained representatives from all sibs in the area. There were proportionately fewer primary kin relationships linking households than found in the hamlets. Only four households (21 percent) in the line and two (13.3 percent) in the half-line held any rights to the settlements' land.

The change in settlement pattern between 1965 and 1970 involved largely the consolidation of the line and half-line into the settlement called 'Atamo town' (see Figure 28). About 72 percent of the gains in households by settlements were moves into the 'town'. Only six households moved out of the 'town' and two of those returned.

The 'town' was and remains a combined Eivo and Simeku settlement. As the line and half-line were combined, two distinct sections or sub-settlements were retained with Eivo speakers occupying the northern end and Simeku speakers occupying the southern end (see Chapter XII).
Figure 28. Household Movements 1965-1970
(Source: Life-time Residential Histories)
Political leaders of the period report that the town was intended to be the only settlement for the Atamo area population. Each household chose a plot and political leaders encouraged everyone to live on their chosen plot. Many houses were reportedly built through a communal labor scheme to speed up the completion of the settlement. A pig fence was constructed along one side of the town to permit town dwellers to raise pigs and yet keep pigs out of the settlement as a sanitary consideration.

Despite the dominance of the town ideology and the provision for pigs to be raised near the town, some households remained in hamlets. For these households, pig husbandry reportedly remained the dominant reason for maintaining hamlet residence (see Table 6).

Individual moves continued to exhibit the characteristics of earlier movement patterns. Because the town was so large, there was little inter-settlement movement for marriage. Inter-marriage between Eivo and Simeku speakers was higher than during any of the earlier periods, but because the town was considered one settlement, this movement was internal. Although settlement reconstructions reveal few household absences for wage employment, individual absences remained at about the same level as those reported above for the 1950s, averaging about seven during the three years for which there are data. Manetai school continued to draw 18 to 23 children out to school during the period (Patrol Reports for 1965 and 1967).


The settlement pattern of 1970 and the 'town' remained fairly stable through 1973 (see Figure 29) but the number of hamlets began to increase in 1971. Initially this appears to have resulted from a growing
Table 6
Reasons for Household Moves 1965-1970

<table>
<thead>
<tr>
<th>Reasons Given by Informants for Moves</th>
<th>Eivo</th>
<th>Simeku</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ To establish a new hamlet for pigs</td>
<td>1</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>- Pigs not doing well; hamlet moved</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>+ Aid in feast preparations</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>+ Seek use of other land</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>+ Move nearer garden</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>+ Harvest almonds</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>- Illness in settlement</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>- Death of a settlement mate</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>- Anger or social discord in settlement</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>- Punitive expedition</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>- Avoiding line village membership</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>+ Move of or to Atarno line or half-line</td>
<td>24</td>
<td>2</td>
<td>26</td>
</tr>
<tr>
<td>+ Return to line or half-line</td>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>+ Move to another line</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>+ Wage labor (out or return)</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>+ School related (out or return)</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>+ Establish a plantation</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>+ Health care</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Unknown</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

- = Reason for leaving a settlement
+ = Reason for moving to a settlement
Figure 29. The Distribution of Atamö Households in 1970
(Source: Lifetime Residential Histories)
dissatisfaction with the results of raising pigs while living in the 'town'. One of the first new pig hamlets to be established after all but two had been abandoned, was founded by one of the men initially responsible for the creation of the 'town'. In addition to being a modern political leader, this man was also involved in competitive feasting and admits that his earlier belief that pigs could be successfully raised in 'town' was wrong. Gradually more hamlets were established and by 1974 there were a total of nine pig hamlets in the Atamo area.

One plantation hamlet persisted through the period when the town was at its peak. In the early 1970s new plantation hamlets began to emerge. As the interest in cocoa began to grow, some households built houses on or near their plantations. This trend, as described below, continued while I was resident in Atamo (see Chapters XII and XIII). There is also evidence that this trend is likely to increase in the future.

Another explanation for the re-emergence of hamlets, of which there were a total of twelve by 1974, is that there was growing skepticism of the promise of increased material wealth which was to have accompanied the establishment of the 'town'. There were disadvantages to living in a settlement as large as the 'town': increased house-to-garden distance for some; and pig raising was less successful than in the hamlets. When the promised advantages of 'town' living proved less immediate than they were supposed, a number of households probably began considering moving to hamlets (see Chapter XI).

The establishment of Atamo Primary School in 1971 probably added stability to the 'town'. Evidence presented below (Chapter XI) indicates
that the school exerts greater influence on residential and movement patterns than most other considerations.

Household moves during the period 1971-1973 were generally in or out of the 'town'. Pig hamlets, as already noted, were established and as feasts were presented households moved back into 'town'.

Individual movements changed slightly as a result of the establishment of the primary school, mentioned above, and as employment opportunities, which became available when construction was being carried out on support facilities for the copper mine at Panguna. The former resulted in fewer children leaving the area for school. The latter resulted in an increase of males absent for short term employment, generally lasting only a couple of weeks.

**Settlement Pattern Change 1920-1974**

1. The Size and Distribution of Settlements

The transition from a series of focal settlements around the western and southern ridges of the Atamo valley to a single focal settlement, the 'town', is schematically represented in Figure 30. During the pre-war era, the line and half-line slowly grew in importance as both centers of activity and as population centers. Following the war, this trend continued as the line and half-line were moved nearer each other. This consolidation of settlements, or settlement pattern nucleation, reached its peak when the line and half-line were merged into a single settlement and there were but a few remaining hamlets.

The line and half-line were both initially located in pre-contact settlement areas. Gradually they were moved closer to large rivers, onto flatter ground. As they grew in size and moved to lower altitudes,
Figure 30. Schematic Representation of Settlement Pattern Change in the Atamo Area 1920-1976
pre-contact settlement areas became sparsely populated and alluvial land on the valley floor, which prior to contact was uninhabited, became the area where a majority of the population lived.

The increasing importance of the line and half-line as population centers, over the fifty years of European contact, is revealed in the figures presented in Table 7. They increased in absolute size and the percentage of the population resident in them also increased.

Accompanying the growth of the line and half-line has been a decline in the number and size of other settlements (see Table 8). The distribution of settlements by size shows a general decrease in the number of settlements larger than two households. The decline in the prominence of traditional type focal settlements is revealed in the lack of non-line and non-half-line settlements of more than five households such as those found present prior to 1938.

2. The Composition of Settlements

Settlement pattern change has been accompanied by changes in the composition of settlements in terms of (a) sib membership and (b) kinship relationships linking households within settlements. Even prior to European contact there was a positive correlation between the size of settlements and the heterogeneity of their sib composition. With the change in settlement pattern this relationship persisted. As the line and half-line grew in size, the number of sibs represented in each of them increased. Similarly, as the line and half-line grew, the percentage of their residents sharing primary kin ties dropped. As this occurred, hamlets tended to become extended family settlements with a high degree
Table 7

Percentage of Area Households in the Line and Half-Line:

Eight Years Compared

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage in Line Village</th>
<th>Percentage in Half-Line</th>
</tr>
</thead>
<tbody>
<tr>
<td>1929</td>
<td>12.0% (n = 3)</td>
<td>0</td>
</tr>
<tr>
<td>1933</td>
<td>16.1% (n = 5)</td>
<td>0</td>
</tr>
<tr>
<td>1938</td>
<td>16.1% (n = 5)</td>
<td>31.6% (n = 6)</td>
</tr>
<tr>
<td>1950</td>
<td>32.1% (n = 9)</td>
<td>50.0% (n = 8)</td>
</tr>
<tr>
<td>1955</td>
<td>34.5% (n = 10)</td>
<td>40.0% (n = 4)</td>
</tr>
<tr>
<td>1965</td>
<td>65.5% (n = 19)</td>
<td>77.0% (n = 14)</td>
</tr>
<tr>
<td>1970</td>
<td>80.0% (n = 24) ... 'town' * ... 90.5% (n = 19)</td>
<td></td>
</tr>
<tr>
<td>1974</td>
<td>80.5% (n = 29) ... 'town' ... 75.0% (n = 21)</td>
<td></td>
</tr>
</tbody>
</table>

*Line and half-line in the combined settlement 'Atamo Town'. 
Table 8

Frequency Distribution of Settlements by Size: Eight Years Compared

| Year  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | Total | Mean Households per settlement |
|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------|---------------------|
| 1920  | 6  | 5  | 3  | 2  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 17    | 2.5                 |
| 1924  | 8  | 6  | 2  | 1  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 19    | 2.3                 |
| 1933  | 6  | 9  | 3  | 1  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 21    | 2.1                 |
| 1938  | 14 | 2  | 3  | 2  | 1  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 16    | 2.1                 |
| 1950  | 6  | 4  | 3  | 1  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 16    | 2.7                 |
| 1955  | 4  | 7  | 1  | 2  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 16    | 2.6                 |
| 1965  | 5  | 1  |    |    |    |    |    | 1  | 1  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 8     | 5.8                 |
| 1970  | 4  | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 8     | 6.4                 |
| 1974  | 11 | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 13    | 4.9                 |

* = Line village included

** = Half-line included
of inter-relatedness among their members. This may in part explain a
general increase in the stability of hamlet groups.

Until World War II, the percentage of households in the line and
half-line holding rights to settlement site land was similar to other
settlement groups of equal size. After the war, as the half-line moved
into Eivo territory, its residents ceased to hold any claim on settlement
site land. For both line and half-line residents, title to the land was
probably never an important consideration in deciding whether or not to
live in those settlements. Thus, for an increasing percentage of the
population, land tenure became decreasingly important in residential
decisions.

Settlement pattern change has been accompanied by a change in the
relationship between the distribution of traditional style political
leaders and the size and distribution of settlements. Prior to contact,
there was a positive association between the size of settlements and the
presence of men with 'renown'. In addition, feasting activity, which
was organized by aspiring or existing leaders, tended to increase the
size of settlements in which it was taking place. The growth of the line
and half-line as population centers and as loci of feasting activity
resulted in change in the relationship between the distribution of feast
givers and the distribution of population centers. As the line and half-
line grew, the size of hamlets decreased and big-men or feast givers
were those who remained in hamlets while others moved to the line or
half-line. By 1955 big-men were no longer living in the larger settlements,
but rather in smaller settlements. When the 'town' was created,
traditional style leaders moved into it and a majority of them have lived
there since. With the decline of traditional style leaders as 'pullers' of followers, modern political leaders emerged as the nucleators of the population.

3. Settlement and Settlement Group Change

Change in settlements during each of the four sample time periods (1920-1924, 1933-1938, 1950-1955 and 1965-1970) reflect the consistently dynamic nature of settlements and settlement groups. No more than 32.1 percent of the area settlements remained unchanged during any of the four time periods (see Table 9). In each period a substantial number of new settlements were founded and old settlements were abandoned. In all four periods, over 80 percent of the changes in settlements resulted from household movement and not from the establishment or dissolution of households (see Table 10).

Movement of households and a high rate of settlement change gives no indication of the stability of groups which inhabit them. By examining the settlement groups at the beginning of each of the sample periods and monitoring the changes in them over a five or six year period, it is clear that relatively few settlement groups simply changed their location and experienced no change in size or composition (see Table 9). There was, however, a decrease in the frequency of settlement group change from 1920 through 1955. This increase in settlement group stability was the result of an increase in the percentage of small hamlets with a high degree of inter-relatedness among households. When the number of settlements was further reduced, after 1955- changes in the line and half-line had a greater impact on the percentage of settlement group change.
Table 9

Settlement Group Change: Four Periods Compared

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Settlements</th>
<th>No. Change In Size or Location</th>
<th>Settlement Group Change*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Location Only</td>
</tr>
<tr>
<td>1920</td>
<td>16</td>
<td>12.5% (n = 2)</td>
<td>12.5% (n = 2)</td>
</tr>
<tr>
<td>1933</td>
<td>21</td>
<td>14.3% (n = 3)</td>
<td>9.5% (n = 2)</td>
</tr>
<tr>
<td>1950</td>
<td>16</td>
<td>31.2% (n = 5)</td>
<td>6.2% (n = 1)</td>
</tr>
<tr>
<td>1965</td>
<td>8</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*Note: Change in settlement groups present for years listed monitored over periods: 1920-1925 for 1920 settlements; 1933-1938 for 1933 settlements; 1950-1955 for 1950 settlements; and 1965-1970 for 1965 settlements. Changes in settlement size which resulted from the dissolution of households were not counted in this table and therefore the number of settlements does not equal the total number of settlements under Settlement Group Change for all years.
Table 10

Relative Importance of Household Movement in Settlement Change

<table>
<thead>
<tr>
<th>Period</th>
<th>Increases to Settlements</th>
<th>Decreases to Settlements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>In-migration</td>
<td>Household Establishment</td>
</tr>
<tr>
<td>1920-24</td>
<td>80.8% (n = 21)</td>
<td>19.2% (n = 5)</td>
</tr>
<tr>
<td>1933-38</td>
<td>88.9% (n = 40)</td>
<td>11.1% (n = 5)</td>
</tr>
<tr>
<td>1950-55</td>
<td>84.8% (n = 39)</td>
<td>15.2% (n = 7)</td>
</tr>
<tr>
<td>1965-70</td>
<td>83.0% (n = 39)</td>
<td>17.0% (n = 8)</td>
</tr>
</tbody>
</table>
4. Household Movement

Despite the overall change in settlement pattern outlined above, the frequency of household movement has remained fairly constant since prior to European contact. The annual rate of household movement \((rhm)\) calculated for each sample period indicates that households moved on an average of every six to nine years (see Table 11).

In all periods this movement resulted in settlement group consolidation and dispersal. Prior to contact, consolidation took place in the focal settlement of big-men. After contact, the line and half line were added as new focal settlements which gradually eclipsed the old ones. The change in settlement pattern from contact through 1970 was essentially an increase in the importance of the line and half-line as focal settlements and the decline of traditional type focal settlements to which feast givers attracted followers.

Changes in household movement patterns indicate some change in the range of and/or the relative importance of factors which influence residential decisions. Reasons given by informants for household moves which occurred during the four sample periods reflect these changes (see Table 12). Prior to contact, pig husbandry appears to have been one of the most important factors influencing decisions to move. Households were 'pulled' by existing or aspiring big-men into settlements to prepare feasts for which pigs were intended. Kinship ties and the availability of land rights were emphasized by big-men--feast givers to influence the decisions of the households they wished to recruit. Although household heads could be persuaded to leave land to which they or their spouses held secure title, they tended to gravitate back to their own land.
Table 11

Rate of Household Movement: Four Periods Compared

<table>
<thead>
<tr>
<th>Period</th>
<th>Household Moves</th>
<th>Mean No. of Households</th>
<th>rhm</th>
<th>Household Moves every</th>
</tr>
</thead>
<tbody>
<tr>
<td>1920-24</td>
<td>22</td>
<td>25</td>
<td>.176</td>
<td>5.7 years</td>
</tr>
<tr>
<td>1933-38</td>
<td>34</td>
<td>50.5</td>
<td>.112</td>
<td>8.9 years</td>
</tr>
<tr>
<td>1950-55</td>
<td>42</td>
<td>41.5</td>
<td>.168</td>
<td>5.9 years</td>
</tr>
<tr>
<td>1965</td>
<td>47</td>
<td>49</td>
<td>.160</td>
<td>6.2 years</td>
</tr>
</tbody>
</table>

Formula:

\[ \text{rhm} = \frac{\Sigma M}{H} \div Y \]

- \(M\) = household moves
- \(H\) = households
- \(Y\) = years movement monitored
Table 12
Reasons for Household Moves During Four Time Periods

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>+ To establish a new hamlet for pigs</td>
<td>2 3 3 6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Pigs not doing well; hamlet moved</td>
<td>4 2 6 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+ Aid in feast preparations</td>
<td>5 6 2 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+ Pulled by a consanguine or affine</td>
<td>4 5 7 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+ Seek use of other land</td>
<td>4 1 1 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+ Move nearer garden</td>
<td>0 1 0 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+ To harvest almonds</td>
<td>0 3 0 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Illness in settlement</td>
<td>4 0 0 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Death of a settlement mate</td>
<td>4 4 1 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Anger or social discord in settlement</td>
<td>0 2 0 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Punitive expedition</td>
<td>4 0 0 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Avoiding line village membership</td>
<td>0 1 0 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+ Move to or of Atamo line or half-line</td>
<td>0 5 14 26</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+ Move to line or half-line</td>
<td>0 7 2 6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+ Move to another line</td>
<td>0 0 2 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+ Wage labor (out or return)</td>
<td>0 0 6 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+ School related (out or return)</td>
<td>0 0 1 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+ Establish a plantation</td>
<td>0 0 4 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+ Seeking health care (out or return)</td>
<td>0 0 0 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unknown</td>
<td>2 4 0 0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- = Reason for leaving a settlement
+ = Reason for moving to a settlement
Death and other misfortune in a settlement usually resulted in a decision to move elsewhere. When a settlement group moved, the likelihood of a group remaining intact was lowered as member householders decided on destinations based on factors relevant to their own situations.

The line and half-line provided a new option for household residence. Living in the line or half-line came to be accepted as a legitimate end in itself. Modern religious and political activities were centered in these new focal settlements and individuals interested in engaging in such activities moved to the line or half-line. In more recent years, political leaders have promised increases in material well being through participation in the activities they organized including the consolidation of area settlements into the 'town'.

Feasting remained important but this too came to be centered in the line and half-line where the largest pools of available labor resided. The demands of pig husbandry have continued to make small hamlets more appealing for feast givers and decisions to leave the line, half-line, or 'town' and move to another settlement in the area have probably been most heavily influenced by this.

Interest in modern economic pursuits has resulted in moves out of the line, half-line, and 'town'. Households have left the area to engage in wage employment, especially during the 1950s, but all have returned. Cash crops, in which interest has increased in recent years, have provided an alternative to wage labor as a source of money income. Some households have chosen to establish plantation hamlets in the area, but these settlements have usually only remained inhabited for a few years and their residents returned to the line, half-line, or 'town'. 
5. Individual Movement

Although less significant than changes in household movement patterns, changes in movement patterns of individuals also contributed to settlement pattern change. Post-marital residence patterns, which prior to contact usually involved viri- or uxorilocal residence, changed with the introduction of the line and half-line. Couples, who prior to contact would have added to the size of existing hamlets, tended, with increasing frequency, to move to the line or half-line immediately following marriage (see Table 13).

Males who chose to engage in wage labor, effectively reduced the number of marriageable males, which in turn resulted in a reduction in the role of the formation of households. Prior to contact, recently married couples tended to add to the size of existing hamlets. With males leaving for wage employment, fewer households were established and the size of settlements was reduced as a result.

Table 13

| Individual Inter-Settlement Movement for Marriage: Three Time Periods Compared |
|-----------------|-----------------|-----------------|-----------------|
| Inter-hamlet     | 3               | 0               | 1               |
| Hamlet to Line or Half-line | 2               | 9               | 1               |
| Inter-Line or Inter-Half-Line | 0               | 1               | 3               |
| Total Individuals Moving | 5               | 10              | 5               |
| Total Individuals Married | 12              | 14              | 16              |
NOTES TO CHAPTER X

1. The impact on settlement pattern of indirect contact with Europeans has been addressed in Chapters IV and V. As stated there, the introduction of steel may have resulted in a proliferation of feasting which may have resulted in increased movement into the hamlets of feast givers and an increase in the range of settlement size. The discouragement of tribal fighting by the colonial administration probably resulted in a decrease of settlement group movement because, informants report, that fighting resulted in individual and household movements.

2. Partly by design and partly because of difficulties in obtaining complete and accurate data on individual moves, most of my analysis has been restricted to household movement and the movement of individuals for marriage. Because the primary focus of this dissertation is change in settlement pattern there is some justification in largely ignoring other kinds of individual movement.

Reconstructing moves made by individuals apart from the households in which they normally reside proved much more difficult than reconstructing household moves. Most individual moves which resulted in absence from a household for longer than a month (for all periods) were made by unmarried individuals or married males engaged in wage employment. Obtaining data on the moves of individuals from whom I collected residential histories was quite successful. However, obtaining datable data on other individuals with whom my informants lived, especially for the early contact years, proved nearly impossible. Because almost all households consisted of a nuclear family, most of which produced children, genealogical data and reproductive histories could be used to date moves and to estimate the duration of residence in particular settlements. This was obviously not the case with unmarried persons.

3. Some absences for wage employment which resulted from moves in the late 1930s were longer than eight years. Because absences of longer duration spanned the war years, I have calculated the duration of absences up to the outbreak of the war.

4. Due to the high percentage of my key informants who were absent for wage employment during the three years just prior to the war, relatively complete settlement reconstructions for those years is difficult. I have, therefore, been unable to tabulate sufficiently complete figures on the percentage of households resident in the line. The data on household movement I do have, however, indicate that the line grew in size between 1938 and 1943.

5. Houses built by households out-migrating for wage employment provided household members places to live when they returned for visits. In
some cases, the wives and children of wage laborers remained in the village while the men arranged for accommodations at their places of employment. In some instances, women returned to the village to bear children and relocated to their husbands' places of employment when the children were a few months old.
Although reconstructed settlement patterns and changes in them for earlier periods provide a general picture of variation and change in the size and distribution of settlements, contemporary settlement pattern is more amenable to detailed examination and analysis. Field observations of patterns of behavior combined with informants descriptions of what they are doing and why they are doing it allow for a more complete understanding of the relationships between settlement pattern, residential group size and distribution and social organization.

In this chapter, I show that: (1) both political organization and social organization have spatial dimensions within as well as among settlement groups; (2) within the 'town', features of the hamlet settlement pattern of pre- and early contact times have been retained; (3) settlement pattern and residential group composition are discernibly dynamic even over a period of less than two years; (4) occasional residences are a significant part of the total settlement pattern and allow for flexibility in residential group affiliation and changes in residence; (5) the fluidity of residential groups is a result of individual and household movements which are activity or task oriented; and (6) the maintenance of a 'town' dominated settlement pattern is encouraged by a high level of 'town' based activities.

The chapter is divided into three sections. The first is a description and analysis of the size, distribution and composition of settlements at the time of my first census (December, 1974). Although the majority
of the population were de jure and de facto residents of the focal settlement, Atamo 'town', many had more than one place of residence. Kinship relationships, sib membership, marriage patterns and political organization can be shown to have spatial dimensions within the 'town', the usually inhabited hamlets, and the occasionally inhabited settlements.

The second section deals with residential group and settlement pattern change after December, 1974. Residential group and settlement pattern change are described in terms of the movements which account for them. The importance of occasional residences are discussed in terms of accounting for a percentage of the physical structures in the area and in terms of their role in the process of residential group change. Also discussed are the reasons given for movements and additional factors which appear to influence residential group change.

The third section deals with a more focused examination of residence, movement and settlement pattern change based on a monitoring of short term changes in residence over the period of a year. In this section, I show that although occasional residences are important, empirical evidence reveals that most individuals spend a majority of their time in what they declare as their usual places of residence. They may spend time elsewhere, however, and sometimes maintain an affiliation with more than one residential group. Changes in usual place of residence are often indefinite and ambiguous and moves made do not necessarily imply that a change in usual place of residence has been made. Because of the fluidity of residential groups, settlement pattern can take various forms, and movement, especially short term changes in residence, allows individuals to maintain a variety of residential patterns while engaging in the same
range of activities. While certain activities encourage movement out of the 'town', modern political activities and services provided in the 'town' encourage its maintenance as a population center.

Size, Distribution and Composition of Settlements, December, 1974

1. Size and Distribution

The distribution of households in December 1974 was similar to that of the late 1960s (see Figures 29 and 31). Over 78 percent of the area households (50/64) reported being usual residents of the town. The twelve usually inhabited hamlets, seven Eivo and five Simeku, were all located within 5 kilometers of 'town'. The mean distance to these hamlets was about 1.6 kilometers. Hamlets contained a total of fourteen households, seven from each of the two language groups.

In addition to the fourteen houses in twelve hamlets usually occupied, there were also nine occasionally occupied houses in one usually inhabited hamlet and five hamlets which were only occasionally occupied. In addition, five of the fourteen households usually resident in hamlets also had houses in 'town'. Because some households had more than one residence there was a degree of flexibility in the distribution of the population in settlements to which area residents claimed ownership of houses. The de facto population of the town, in terms of households residing in houses to which they claimed ownership ranged from 62 percent to 86 percent of the total area households.

The hamlets of December, 1974 can be classified according to the purpose for which they were reportedly intended (see Figure 32). Informants generally described settlements as 'towns' (or villages), pig or plantation hamlets or as garden houses. Figure 32 shows the
Figure 31. The Distribution of Atamo Area Households in December 1974
(Source: Author's census)
Figure 32. Atamo Settlement Pattern in December 1974
(Source: Author's census)
distribution of these different types of settlements at the time of my census. Nine of the fourteen hamlet households were resident in pig hamlets. These occasionally inhabited settlements and pig hamlets contained over 52 percent of the Atamo pig population with a mean of 4.1 pigs per household for all hamlet dwelling households (usual and occasional). This compared with 1.3 pigs per household for 'town' residents with no hamlet houses.

The three non-pig hamlet settlements outside 'town' consisted of two plantation hamlets and one garden house. Both plantation hamlet households claimed larger than average cocoa holdings. Only one of the two, however, was originally established as a cocoa plantation hamlet. The other had been the site of the Atamo primary school before it moved to its present location. The single garden house was occupied by an elderly widow who lived by herself and reportedly refused to live with her kinsmen who claim they asked her to move in with them.

2. Settlement Composition

Although most Atamos had lived in the 'town' for about five years, the two sub-settlements, each identified with one of the two language groups of the area, were maintained. In the Eivo end of the village (to the north), there were only three adult Simeku speakers, all married to Eivo speakers. In the Simeku section, there were six Eivo speakers, but most of them had lived in Simeku settlements for several years and all were either married to, or were previously married to, Simeku speakers. Only one household resident in the Simeku sub-settlement contained a household head and his spouse who were both Eivo speakers. This household
contained children who spoke Simeku and who were offspring of a previous Eivo-Simeku marriage.

Settlement composition in terms of sib membership and kinship relationships among the members of the town and hamlets was similar to that described above for the late 1960s: The town was composed of individuals from ten sibs; no hamlet contained usual residents from more than two sibs (see Figures 33 and 34).

Among the hamlets and within the 'town' there was spatial continuity in both the distribution of sib members and inter-marriage patterns among sibs (see Figures 33 and 34). All 'town' households and all hamlet dwellers lived adjacent to at least one other household containing members in which the household head or his spouse were members of the same sib.² Moreover, there were clusters of households in 'town' containing members from two inter-marrying sibs. Although these patterns resulted from choices of house site, based on a variety of criteria, they show that individuals tended to choose to live near their sib-mates. This tendency combined with repetitive inter-marriage among sibs resulted in the observable pattern of clustering.

The degree to which hamlet group members were related through traceable kin ties is shown in Figure 35. Although only one hamlet had more than one household usually resident, all three hamlet groups contained members (either usual or occasional) who were either actually or putatively close kinsmen.

Within the 'town' most households shared genealogical links with their neighbors. Sibling and MB-ZCh and parent-child relationships were prevalent among individuals living near each other. When the town was
Figure 33. The Sib Composition of Atamo Area Hamlets in December 1974
(Source: Author's census)
Figure 34. The Sib Composition of Atamo 'Town' in December 1974
(Source: Author's census)
COOK HOUSE

SLEEPING HOUSE

HAMLET DWELLERS 'TOWN' HOUSE

SIB CODE FOR MALES -- Head of Household

SIB CODE FOR FEMALES -- Spouse or Head of Household

DEPENDENT MARRIED COUPLE

INDIVIDUAL DECEASED
KEY

• COOK HOUSE

• SLEEPING HOUSE

• HAMLET DWELLERS 'TOWN' HOUSE

- SIB CODE FOR MALES -- Head of Household

- SIB CODE FOR FEMALES -- Spouse or Head of Household

) DEPENDENT MARRIED COUPLE

INDIVIDUAL DECEASED
Figure 35. The Kinship Composition of Atamo Area Hamlets in December 1974 (Source: Author's census).
created and when households moved after its construction, individuals chose to live near their close kinsmen. This combined with a certain amount of sister exchange resulted in a clustering of primary kinsmen in the 'town'.

Among area residents there were groups of households whose members interacted more frequently with each other than with other area residents. The single multi-household hamlet was one such group. Within the 'town' there were also identifiable action groups which tended to be made up of neighboring households. These action groups were only relatively discrete both in the frequency of interaction among members and in their spatial distribution. They did, however, tend to consist of household clusters.

While action groups were in one sense kinship groups in that their members tended to be more closely related to each other than to other area residents, they were also political groups in that each groups' activities were generally organized by a resident leader (see Figures 36 and 37).

All but four hamlet households tended to be associated with a 'town' action group (see Figure 36). These four households formed an action group with their own leader as a member. Other group leaders, save one, were resident in the town. He was a mission catechist and feast giver and was most closely associated with the household cluster "e" in Figure 37. While members of other action groups tended to be more active in village government activities, his group consisted of the most active mission supporters.
Figure 36. Leaders and Interaction Groups in Atamo Area Hamlet and Atamo 'Town' in December 1974
Figure 37. Leaders and Interaction Groups in Atamo 'Town' in December 1974 (Source: Author's census)
KEY

a-f  HOUSEHOLD CLUSTER CODE

■  COOK HOUSE

□  SLEEPING HOUSE

‖  HAMLET DWELLER'S HOUSE

fg  FEAST GIVER'S HOUSEHOLD

vg  VILLAGE GOVERNMENT LEADER'S HOUSEHOLD
KEY

**a-f** HOUSEHOLD CLUSTER CODE

- **a** COOK HOUSE
- **b** SLEEPING HOUSE
- **c** HAMLET DWELLER'S HOUSE
- **f** FEAST GIVER'S HOUSEHOLD
- **v** VILLAGE GOVERNMENT LEADER'S HOUSEHOLD
In size composition and organization, these action groups of 1974 resembled focal settlements of pre- and early contact times. They were, however, not only less spatially discrete, but probably also less discrete in terms of the frequency of interaction among members and individuals outside the groups.

3. Household Composition

Over 87 percent of the households resident in Atamo (de jure census: December 12, 1974) were simple households consisting of a married couple or previously married person with or without dependent children. Simple households containing individuals in addition to a nuclear family in some stage of development, in all cases but one, included sib-mates of the spouse and not the head of household. These attachers were either elderly widows or widowers or children whose parents were dead.³

There were only eight complex households, consisting of a head of household, either married or previously married, and one or more dependent nuclear families.⁴ Of the eight dependent nuclear families, only two of the couples forming them had been married for more than two years. Both couples were members of households headed by big-men. One was a widower with dependent children. The other was married but had no living dependent children.

Three of the seven dependent nuclear families usually resident in Atamo at the time of the census had their own sleeping houses. The others had rooms in houses belonging to the heads of their households. By the end of my stay, two more dependent households had their own sleeping houses and one had established an independent household.
Settlement Pattern and Residential Group Change 12/12/75 through 5/30/76

1. Settlement Pattern

Over the 17-1/2 month period, from December 12, 1974 through May 30, 1976, there were a total of forty-three new houses built and twenty-two abandoned or destroyed. Thirty-four of the new houses were constructed in the 'town' and nine in hamlets (see Figures 38 and 39). Of the thirty-four in 'town', seventeen were replacements for existing houses, while nine were additional houses for expanding households. In the hamlets, only two were replacements; the other seven were in newly established hamlets.

A total of seven new settlements were established and two were abandoned. No new settlements were usually occupied—all being reported as occasional residences only. Of the two abandoned, one was a usual place of residence.

2. Residential Change

There were only six inter-settlement household moves involving a change in usual place of residence. Four of these were internal to the Atamo area and all four were line to hamlet or hamlet to line moves, two of each. The other two households which changed their usual place of residence were in-migrant from Siuema, a Simeku village, about seven miles south of Atamo. Only one of the six inter-settlement moves resulted in a change in settlement pattern by the time I left Atamo. Three of the four moves internal to the Atamo area were moves to what had been occasional places of residence. The in-migrants from Siuema arrived shortly before I left the area and they said they intended to build houses in the
Figure 38. Atamo Area Settlement Pattern and Residence Changes December 1974-May 1976 (Source: Author's censuses and Mobility Register)
- HOUSE USUALLY OCCUPIED 12/12/74 through 5/30/76
- HOUSE BUILT AND USUALLY OCCUPIED BETWEEN 12/12/74 AND 5/30/76
- HOUSE OCCASIONALLY OCCUPIED 12/12/74 through 5/30/76
- HOUSE BUILT AND OCCASIONALLY OCCUPIED BETWEEN 12/12/74 AND 5/30/76
- USUAL RESIDENCE ABANDONED BETWEEN 12/12/74 AND 5/30/76
- OCCASIONAL RESIDENCE ABANDONED BETWEEN 12/12/74 AND 5/30/76

**CHANGE IN USUAL PLACE OF RESIDENCE**

**CHANGE IN OCCASIONAL PLACE OF RESIDENCE**
- OCCASIONAL RESIDENCE ESTABLISHED
- OCCASIONAL RESIDENCE ABANDONED
Figure 39. Settlement Pattern and Residence Changes in Atamo Town December 1974 through May 1976 (Source: Author's census and Mobility Register)
HOUSE PRESENT 12/12/74 through 5/30/76
HOUSE BUILT BETWEEN 12/12/74 and 5/30/76
SITE OF HOUSE ABANDONED BETWEEN 12/12/74 AND 5/30/76
NEW HOUSE BELONGING TO AN EXISTING HOUSEHOLD

CUR. CHANGE IN DAILY RESIDENCE
COR. CHANGE IN OCCASIONAL RESIDENCE
+ NEW OCCASIONAL RESIDENCE ESTABLISHED
= OCCASIONAL RESIDENCE ABANDONED
HE HOUSEHOLD ESTABLISHED
HD HOUSEHOLD DISSOLVED
DPE DEPENDENT NUCLEAR FAMILY ESTABLISHED
line. At the time of my departure, however, they were living in a hamlet with kinsmen.

There were four moves within the town which could be considered a change in residence in that they were more than simply moves to a new house on their former house site. Only two of these resulted in the households being resident in a new household cluster after the moves were made (see Figure 39).

Only one new household was established through marriage, although following four other marriages, new sleeping houses were constructed for the newly married couples. These four couples continued to eat from the hearth of an existing household and did not change their household of residence. In two cases, the couples' post-marital (household) residence was parenti-virilocal. One couple resided matri-virilocally although the father of the bride lived next door. The other couple took up residence in the bride's father's house, residing uxori-parentilocally. In all cases, the post-marital residence of the couples followed the general rules for post-marital residence outlined above (see Residence in Chapter VI). The one newly established household consisted of an Atamo born woman and a Karato man who taught at the primary school, and they established a residence adjacent to the bride's father's house.

The most substantial impact on settlement pattern was not from changes in usual place of residence or from the establishment of households after marriage, but from households establishing or abandoning occasional places of residence. As already noted, seven new hamlets were established and one was abandoned. Those who founded new hamlets maintained that these settlements were occasional places of residence
only and, as shown below, this was empirically verified when I monitored \textit{de facto} residence of all households over the period of a year.

There were two new houses built in the 'town' as occasional residences of hamlet dwellers. One was constructed by a man sponsoring a feast and served as both an occasional residence and feast house. The other was built by a dependent nuclear family, a newly married couple, who continued to reside with the bride's father in a hamlet.

One 'town' house and two hamlet houses, all reportedly occasional residences, were abandoned. In all three cases, the houses were in poor repair at the time of my first census and were not occupied for more than a few weeks during my entire stay in Atamo.

3. Reasons for Movements and Factors Contributing to Changes in Residence

The reasons given by informants for changes in usual place of residence, movements within the 'town' and the establishment or abandonment of occasional residences were similar to those cited for residential changes during the earlier periods described above (see Table 14). All of the reasons given were generally accepted by the area population as valid reasons. Disputes, as in the past, pushed people out of settlements. The destination of these moves was influenced by the location of land to which movers held rights, the location of close kinsmen and the persuasive power of political leaders in recruiting followers. Pigs and cash crops were both cited as reasons for usual and occasional moves to hamlets. Feasts and the end of a feast cycle (the killing of pigs) were given as reasons for moves into 'town'. Young married couples, even if they maintained their usual residences in a hamlet, built houses in 'town'.
Table 14
Reasons Given for and Factors Contributing to Residence Changes

<table>
<thead>
<tr>
<th>I. Changes in Usual Place of Residence</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Inter-settlement Moves</td>
</tr>
<tr>
<td>Move to line (first child born and parents of male living in a distant hamlet)</td>
</tr>
<tr>
<td>Move to hamlet to care for pigs; pulled by household head's FWMB 1</td>
</tr>
<tr>
<td>Move to hamlet to establish plantation of wife's land 1</td>
</tr>
<tr>
<td>Move to Atamo village area following a dispute; pulled by sib-mate (one household head and two spouses born in Atamo area) 2</td>
</tr>
<tr>
<td>b. Internal to 'town'</td>
</tr>
<tr>
<td>Move nearer Cm to aid in feast preparations (house delapidated and busy with feast preparations; moved into existing house) 1</td>
</tr>
<tr>
<td>Move to new house constructed for someone else but never occupied (own house needing repair) 1</td>
</tr>
<tr>
<td>Dispute with moiety-mate neighbor; move nearer father 1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>II. Change in Occasional Place of Residence</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Inter-settlement Moves</td>
</tr>
<tr>
<td>Town house delapidated; move to existing nearby hamlet house (usual place of residence) 1</td>
</tr>
<tr>
<td>Town house built for feast preparations (no existing line house) 1</td>
</tr>
<tr>
<td>Town house built (couple newly married) 1</td>
</tr>
<tr>
<td>Hamlet established for cash crops (one case land recently allotted; one case cocoa fermentry built; one case copra dryer built) 3</td>
</tr>
<tr>
<td>Hamlet established for pigs (pig feast being planned for two years hence) 1</td>
</tr>
<tr>
<td>Hamlet abandoned after pigs killed for feast 1</td>
</tr>
<tr>
<td>House built for hunting and almond harvest (head of household sponsoring a feast that year) 1</td>
</tr>
<tr>
<td>House built for garden 1</td>
</tr>
</tbody>
</table>
The destination of moves out of 'town', both usual and occasional changes in residence, were, in almost all cases, to land to which either the head of household or his spouse held land rights. Six of the seven newly created hamlets were on land to which household members held either provisional or full title. The only settlement established on land belonging to someone other than household members, was a garden house built on land 'given' by a 'big-man' who managed the land.

4. Settlement Pattern Change and Household Movement Compared to Earlier Periods

The settlement pattern and changes in it between December, 1974 and May, 1976, were more complex than those reconstructed for earlier periods and described above. During my stay in Atamo, there was not a one-to-one ratio of houses to households. Occasional residences, although mentioned for earlier periods, were not included in my descriptions and analyses because informants were not able to provide datable data on occasional residences other than those in the line and half-line. Although people maintained a usual place of residence during my stay, they also had other houses in other settlements in which they spent time and claimed residence.6

The amount of settlement pattern change which resulted from changes in usual place of residence for area households was less than that reconstructed for earlier periods. The annual rate of household movement (rhm—see above Chapter X), for the 17-1/2 months was .055 compared with .160 for the years 1965-1970: applying the 1965-70 rate to the number of households in 1974 would yield about fourteen inter-settlement household moves; the actual number of moves, reported above, was six. This lack of
movement was probably due, at least in part, to the fact that no village move was made during my stay in Atamo.

Change in the size and distribution of settlements resulted from only one of the six inter-settlement household moves. The majority of the changes in usual place of residence were shifts to what had been occasional places of residence.

The majority of settlement pattern change resulted from the addition of houses belonging to existing households and the establishment of occasional places of residence. The former undoubtedly occurred in the past and the number of houses per household varied depending on the size of the households and the number of new houses occupied before old ones fell down.

Occasional residences were, as noted above, a part of the total settlement pattern in the past, but were probably not as numerous in, or as significant, as they were after the town was established in 1968. The 'town' ideology remained fairly pervasive during my stay in Atamo in influencing individuals to maintain their usual residence in 'town'.

Pig husbandry and cash crops, on the other hand, favored residence in hamlets. Maintaining more than one place of residence or establishing new ones when the need arose, afforded a chance to reap the promised and real (benefits) of 'town' and hamlet residence.

Residence and Movement
1. Usual and Occasional Places of Residence

Between May 1, 1975 and May 30, 1976, the usual residents of Atamo town and its affiliated hamlets spent a total of 117,512 of 141,357 person days present, or about 83.1 percent of their time, in the usual
places of residence. Days absent numbered 23,845 or about 59.0 days per person for the population of 404. Absences resulted from 2,732 individual moves (6.8 per person) which entailed absences of an average of 8.7 days each. Only 21 individual moves were said to have resulted in changes in usual place of residence for the individuals involved: two of these were moves to settlements outside the Atamo area and eleven were moves into the area.

Most absentees (i.e., those absent from their usual place of residence) remained in the Atamo area and were present in their occasional places of residence, visiting with other households in the area or living in temporary shelters in bush areas. Only 6,530 man days or 27.4 percent of the total days absent, were spent outside the Atamo area. Nearly half of these were spent at Manetai Mission, the remainder being spent in other Eivo and Simeku village areas or in the urban centers of Kieta or Panguna.

Residence and movement patterns were not uniform among the population. Six percent of the population made no moves at all and were present in their usual place of residence for the entire year. The frequency distribution of days present in usual place of residence for the entire population (see Table 15) reveals that 78 percent of the mobility register population spent over 70 percent of their time in their usual places of residence.

Time spent in occasional residence accounted for 65.6 percent of the 23,845 man days absent from usual places of residence. The 143 individuals claiming occasional residences (35.4 percent of the population) had an average of 104.9 days absent from usual places of residence whereas those claiming only a usual place of residence had an average of 31.4 days
Table 15
Percentage of Time in Usual Place of Residence

<table>
<thead>
<tr>
<th>Percentages of Populations</th>
<th>Individuals with Usual Residence Only</th>
<th>Total Individuals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>90%- 80%- 70%- 60%- 50%- 40%- 30%- 20%- 10%-</td>
<td></td>
</tr>
<tr>
<td>Individuals with</td>
<td>100% 89.9% 79.9% 69.9% 59.9% 49.9% 39.9% 29.9% 19.9%</td>
<td></td>
</tr>
<tr>
<td>Usual Residence Only</td>
<td>66.3% 18.0% 8.8% 3.8% 1.9% 0.8% 0.4% 0 0</td>
<td>261</td>
</tr>
<tr>
<td>Usual and Occasional</td>
<td>22.4% 13.3% 14.7% 14.0% 22.4% 7.0% 4.2% 2.1% 0</td>
<td>143</td>
</tr>
<tr>
<td>Residences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Atamo Residents</td>
<td>50.7% 16.3% 11.0% 7.4% 9.2% 3.0% 1.7% 2.1% 0</td>
<td>404</td>
</tr>
</tbody>
</table>
absent. A comparison of the frequency distributions of time in usual place of residence of those claiming an occasional place of residence and those claiming only one place of residence reveals that the former group exhibited a greater range in the amount of time spent in usual place of residence than the latter.

Although households sometimes moved as a unit, certain segments of the population moved more frequently and were absent more often than others. Males moved more frequently and were absent more often than females. Adolescents and young adults tended to move more often and were more frequently absent than older adults and younger children. School-aged children tended to be less mobile than their parents although those claiming usual residence in hamlets of distances over 1.6 kilometers from the 'town' tended to live in occasional residences in 'town' or stay with close kinsmen near the school.

The number of absences and the frequency of movement in and out of settlements were not uniform over time. Both exhibited a periodicity similar to that mentioned above for earlier periods. The de facto population of the 'town', for example, ranged from 301 (December 15, 1975) during a time when many people were out hunting for feasts, to over 450 (October 1, 1975) when there was a village government meeting in that settlement. Almond harvesting, hunting, and sago processing drew large numbers of people out of their usual places of residence for periods of one day to a month. Feasts and their final preparations, village meetings and government work days tended to attract individuals to the 'town'. School vacations brought de jure residents back from secondary
and tertiary schools and allowed 'town' based families with primary school children to move the entire family to the bush.

2. Individual and Household Movement

The movement and residential patterns of individual households during the mobility register year were dependent on a number of factors. Most movement and shifts in de facto residence were described in terms of specific tasks performed while absent from their usual place of residence or as returns to usual place of residence. During the mobility register year almost all individuals leaving their usual place of residence performed tasks given as reasons for shifts in residence, at least initially. Some, however, remained away from their usual place of residence after the tasks for which they allegedly moved were completed. Because of the task orientation of movement, patterns of movement and residence of Atamo area households were largely dependent on the interests and activity patterns of their members, the location of their residences, and the loci of the activities in which they were involved.

Members of hamlet based households with occasional residences in 'town' spent time in 'town' when there were meetings, village work days, feasts and life crises of kinsmen living there. Those involved in final feast preparations remained in 'town' for periods of up to four months but most were there for shorter periods and returned to their hamlets to care for pigs.

'Town' based households with occasional residences in pig hamlets spent four days to a month in their hamlets caring for pigs. First almond rituals drew individuals out to their hamlets when a new crop of almonds reached maturity, at which time some 'town' based households without hamlet
residences joined them to break almonds and to perform pig-magic. 'Town' based households with hamlets also spent time in hamlets to harvest almonds for periods of up to two weeks. Those either sponsoring a feast or making major contributions, spent time in either hamlet or bush areas to hunt opossum and wild pig during the months preceding the presentation of the feasts.

Members of 'town' based households with occasional residences in plantation hamlets moved to their hamlets to harvest their cash crops, to build houses and plant new trees. Stays in plantation hamlets ranged from a few days to two months and averaged about three weeks. Plantation hamlets were also inhabited when almonds were being harvested or hunting done for feasts.

Members of both 'town' and hamlet based households moved to Manetai Mission to sell cash crops. Cocoa was harvested at fairly regular intervals resulting in periodic moves by the few households which processed cocoa. Copra sales, on the other hand, resulted in moves by a greater number of individuals, but at less regular intervals.

A majority of women who bore children during the mobility register year moved to Manetai Maternity Hospital, with stays there ranging from eleven days to eighty-six days. Most women were accompanied by their husbands and younger children and the total days absent from Atamo for maternity care numbered 1,197 (18.3 percent of the total days spent outside of the Atamo area). Atamos also traveled to Manetai for health care from both hamlet and 'town' based households and a total of 974 person days was spent at Manetai by victims of illness and accompanying kinsmen.
Absence from usual places of residence for either hamlet based or 'town' based households rarely involved all of the members. Small households containing a nuclear family with young children or no children at all, tended to move as a group. Complex households, on the other hand, moved less frequently as a group than any other households. Households containing school aged children tended to move less often than other households and only moved as a group when the children were not attending school, such as during school vacations.

3. Mobility and Residential Patterns

This more focused examination of residential patterns yields five significant findings not readily apparent in the bulk of this study, which is largely concerned with more general long-term changes in the size and distribution of settlements.

First, it shows that informants' statements about where they usually reside are a good indication, at least in the short run, of where they actually spend their time. This is an assumption upon which the majority of this study has been based.

Second, it puts changes in usual places of residence into the context of the totality of movement and shows that moves which result in changes in usual places of residence may be only a small percentage of the total moves made over a given period. Movement and absence from usual place of residence were an integral part of residential patterns for Atamo during 1975 and 1976 and probably were so in the past. Movement allowed flexibility in residence and residential group affiliation in that no matter where people usually lived, they could engage in a wide range of activities in various places by moving, if necessary, to engage in them.
Third, it shows how task oriented residence and movement are and how different interests and activity patterns result in different residential patterns for different individuals and households. This supports the notion that settlement pattern, in the long run, has changed because peoples' interests and activity patterns have changed.

Fourth, it gives some indication of how the frequency of 'town' base activities has given rise to, and supported, the maintenance of the 'town' as a population center. While certain activities drew people out of 'town', the school, village meetings, and feasting activities drew them back.

Finally, it shows that shifts from usual place of residence may be gradual and indefinite. Moves made for specific purposes may become "permanent" changes in usual residence, but households may not be willing to commit themselves to a decision to change their usual place of residence at the time a move is made. Moreover, statements of intention to change one's usual place of residence do not necessarily mean a change will be made.
NOTES TO CHAPTER XI

1. The relative importance of "usual" and "occasional" residences is discussed in the third section of this chapter (see Residence and Movement). Both are defined as houses in which people reported they ate. "Usual Residence," in the data presented here, is based on verbal reports of informants, elicited by asking people where they ate most of the time. A monitoring of the de facto residence of Atamos over a period of one year, described later in the chapter, indicated that 78 percent of the mobility register population (see note 7) spent over 70 percent of their time in their usual place of residence.

"Occasional Residence," as the term implies, is where informants report they spend some of their time. The 143 individuals claiming occasional residences between May 1, 1975 and April 30, 1976 spent an average of 109.4 days or 29.9 percent of their time in occasional residences.

De jure residence is defined as the house in which a household to which an individual claims membership, and/or is said to hold membership by household members, resides. This would include not only those usually resident in the household, but also those who may be usually absent, such as persons attending secondary or tertiary schools or those engaged in wage labor. The latter are generally individuals who are expected or who expect to return to their usual place of residence.

2. Among Eivo speakers resident in 'town', it is little wonder that neighboring households contained members of the same sib. All but one 'town'-based Eivo household contained either a head of household or spouse who were of sib 'a/A'. There were, however, clusters of members of the three major sub-sibs of sib a/A such that most householders of sib a/A had neighbors from own sub-sib.

3. There appear to have been few adoptions among Atamos at any time as far back in history as 1920. There was only one adopted child, an adolescent boy, resident in Atamo at the time of my census. This boy was reportedly adopted when his mother died immediately following his birth. The adoption of children, one or both of whose parents were dead, reportedly occurred in the past. Informants also claim infant betrothals resulted in a child leaving his or her parents' house and joining the household of his or her betrothed's parents or mother's brothers' household. In some instances big-men adopted female children who, when the girls reached puberty, became their wives.

In the case of the one adopted child resident in Atamo at the time of my census, I have included him in tabulations as a "child" of his adoptive parents.
4. I make a distinction between "simple" and "complex" households for the purposes of tabulating household composition. This distinction is based on whether there is one (simple) or more than one (complex) partial or complete nuclear family that constitute the residential unit. Complex households are relatively unstable and dependent nuclear families tend to break off and form independent nuclear family (simple) households.

Residential and movement patterns of simple and complex households tend to be rather different. Simple households tend to reside and move more frequently as a group than do complex households. All but one of the complex households in Atamo included complete nuclear families or a head of household, immature children, and a dependent nuclear family. In the one case, the two sons of the head of household, a widow with no dependent children, were away. One of the sons' wives and the widow usually resided in the house. In the de jure household composition tabulations, I have, therefore, included the widow's household as a complex household.

5. Residence terminology used here is from Fischer (1958:513). Following Fischer, the residence of the groom is placed first and the bride is placed second. The term "parentilocal" is used when the household in which the couple takes up residence after marriage contains both parents of either partner.


7. As stated in Chapter II, the de facto population of the Atamo area was monitored over one calendar leap year using a mobility register similar to that described in Chapman (1975). Unlike Chapman's register, however, which counted all absences of 24 hours or more as moves, my register included moves which resulted in an individual's presence in or absence from Atamo settlements of four or more nights duration. The use of four nights presence or absence was largely arbitrary in that my research assistants and I felt we could not obtain a complete record of presences or absences of any less duration given the number of moves which were occurring. However, Eivo speakers do make a tense distinction in their verb "to go" between near past (i.e., between about four hours and three days before the present) and distant past (i.e., more than three days before the present).

8. The mobility register population changed over the 366-day period during which moves were recorded. Babies were born, individuals in-migrated, out-migrated or died. On the day the register was started, May 1, 1975, the de jure population of Atamo area settlements was 408. Due to logistic problems of monitoring the population of a hamlet located about eight miles north of Atamo, nine de jure area residents were excluded from the register unless they came into Atamo 'town'. Also excluded were those de jure residents not usually present in Atamo area settlements. These numbered ten and included seven secondary and tertiary school students and three unmarried
males engaged in wage labor during the entire year. These de jure residents who were usually absent for an average of 76.7 days or 20.9 percent of the year. The mobility register population, when the register began, excluding those de jure residents not usually present, and the household excluded, was 389. Counting all those who were usual residents during some period over the year, including babies born, in-migrants, those that died, and individuals that out-migrated, the mobility register population was 404. This was 95.5 percent of the total de jure population over the same period.

9. A more detailed analysis of movement and residential changes than that presented here is possible. Given the abundance of data, however, such analysis would not be possible without a great deal of hand tabulation or the use of computer programs developed for Chapman (1970) and by Dr. Michael Levin of the East-West Center Population Institute. I hope to computerize both demographic and movement data for presentation in a future publication.

10. The mobility register would allow a reconstruction of the population in each settlement for every day of the mobility register year. The periodicity described here could be described in more precise numerical terms. However, because of the amount of time necessary to compile daily censuses I have not attempted to do so here. This could also be done using the computer programs mentioned in note 9.

11. As stated above (note 2), absences of less than four nights were not recorded in the mobility register. Absences from Atamo settlements for meetings, feasts, and other occasions sometimes left fewer than 100 people in their usual places of residence. Meetings and feasts in Atamo drew in as many as 280 people from other village areas for a single night. The figures reported in this section, however, are based on the mobility register and do not reflect such dramatic fluctuations in the de facto population.

12. I hope to analyze reasons for moves data from the mobility register using the computer programs mentioned in note 9.
CHAPTER XII
SUMMARY AND CONCLUSIONS

Past Trends

The size, distribution and composition of settlements in the Atamo valley have been continually changing since prior to European contact. The majority of this change has resulted from household movement and not moves made by individuals at marriage.

Prior to contact, Atamos lived in hamlets which ranged in size from one to eleven households. Larger hamlets, in which political leaders lived, were focal settlements. These were located on or near spirit shrines which were said to be sources of strength to political leaders and sources of good fortune. Some focal settlements had histories of repeated or continuous occupation. Household and individual movements, which were the observable outcomes of residential decisions, tended to be out of and into focal settlements.

Residential decisions were influenced by a variety of factors. Misfortune, the demands of pig husbandry and social discord resulted in movement out of settlements. Political leaders, who gained their status through competitive feasting, actively recruited followers and 'pulled' them into settlements. Leaders granted title to land and used the rhetorical resources of kinship to encourage individuals and households to join them in the preparation of feasts. Close kinsmen tended to live together, and households tended to use land to which heads of households or their spouses held secure title.
After European contact, settlements continued to change in size, composition and distribution, but there was a general shift from a series of focal settlements on mountain ridges to village type settlements on the valley floor. As villages became foci of feasting and modern religious and political activities, they increased in size, and the number and size of pre-contact type hamlets decreased. Individual and household movement became directed into and out of villages, and not between hamlets. The two villages, the 'line' and the 'half-line', were moved closer to one another and were eventually merged into a single focal settlement, the 'town', where the majority of the population now live.

There have been aspects of the demography, technology, religious beliefs, and economic, political and social organization of Atamos that have favored large settlements and others that have favored small settlements. Prior to contact, with a low population density, there was an abundance of land and a scarcity of labor. Because achieved political leaders gained their status through competitive feasting, men aspiring to status competed for followers who could provide labor for their feasts. The shifting cultivation practiced by Atamos required long fallow periods and increases in settlement size would have resulted in increases in house to garden distances. Pig husbandry also required land for forage, and large settlements, with many pigs, resulted in over foraging in the area surrounding the settlements. Reported beliefs about the good fortune of some settlement sites, and beliefs about the general good fortune necessary for success in feasting, encouraged both the repeated or continuous habitation of some settlement sites, and movement when illness or other misfortune befell a settlement. Annual dispersals of the population for almond harvests made relocation and movement a common occurrence.
Since European contact new activities, institutions, and beliefs have been introduced or developed. The colonial administration encouraged the creation of large village settlements. Atamos, who either represented the colonial administration or the mission, or who organized their activities, lived in villages and encouraged others to do so. Modern political leaders have continued to encourage a nucleated settlement pattern and implied material rewards will come to those who reside in large settlements, and to those who participate in the activities these leaders organize. Cash crops, because land holdings are dispersed, make small dispersed hamlets more desirable than a large village. Cash crops also have taken land out of fallow and probably contributed to increased house to subsistence garden distances.

The advantages and disadvantages to large and small settlements, both those which existed before European contact, and those which have developed since, continue to influence the size and distribution of settlements. How long Atamos will continue to reside in their 'town' is difficult to predict, but there are indications that they may return to small scattered hamlets and a dispersed settlement pattern.

**Future Prospects**

If the population continues to grow, Atamos will need more land for subsistence gardens. Increases in cash crops holdings will make more land unavailable for subsistence. If Atamos remain in 'town' they will be forced to either shorten their fallow periods or travel greater distances to both subsistence gardens and cash crops as the land near 'town' is used. In the long run, the increasing population and the removal of land
from fallow for cash crops will result in a land shortage, and Atamos will be forced to either modify their agricultural technology or seek land elsewhere.

The interest in cash crops as a source of income is likely to continue to increase. The trend for people to plant on land to which they and their heirs have clear title will result in an increase in the house to cash crops distances for some of those living in the 'town'. As cash crop holdings grow, the time required for maintaining and harvesting them will increase. Those who must travel more than a couple of miles to their holdings may find the advantages to living near their cash crops outweigh the advantages to living in town.

After my departure from Atamo, a vehicular road, linking Manetai with the urban centers of Arawa and Kieta, was completed. Plans were also underway for a feeder road from Atamo to the Manetai-Kieta road. The completion of these roads will probably make the sale of cash crops easier and more profitable. Atamos hold title to land nearer the coast and the roads than that which they are using now. The presence of the roads may result in a general shift in the population to land nearer the roads.

If Atamos are unable to achieve a higher standard of living through participation in activities organized by modern political leaders and by maintaining residences in the 'town', the ideology, of which the 'town' was said to be a result, is likely to lose its credibility. If this occurs, Atamos may perceive fewer advantages to remaining in the 'town'. This, combined with the increasing advantage to a dispersed settlement pattern, may result in an increase in the number of hamlets and a decline in the 'town' as a population center,
Broader Implications of the Study

As already stated in the introduction, this study raises some basic questions about the assumptions anthropologists appear to make about the stability of local or residential groups. If I had assumed that settlement groups changed in size and composition only when individuals were born, died, and immigrated or emigrated at marriage, or after the death of a spouse, the picture of settlement pattern and residential group change presented here would have been quite different. Even if I had taken into account the general change in settlement pattern, I could have gathered data on moves at marriage or after the death of a spouse, and assumed that those data would allow me to explain the majority of settlement group change. Settlement groups would have appeared more stable than they have been. Post-marital residence moves would have appeared more important than they have been in explaining residential group change. The stability of residential groups, and the relative importance of changes in residence at marriage compared with other reasons and on other occasions should not be assumed. They are variables which can be investigated and quantified.

A second assumption that is questioned by the findings of this study, is that the impact of colonialism can be suspended and that post-European contact influences and institutions are less important than pre-contact influences and institutions in explaining behavior. Even if Atamos were living in small hamlets as other Eivo and Simeku speakers are in some areas, I could not assume that the size, composition, and distribution of settlement groups were the same, or similar, to those of pre-European contact times. Nor could I assume that settlement groups
were more or less stable than those which were present before contact. Moreover, I could not assume that residential decisions were more influenced by kinship, pig husbandry, feasting and subsistence agriculture than they were by administration policies, mission activities, the presence of a school, cash crops or new religious and political ideologies.

The relative importance of pre- and post-contact factors in influencing patterns of behavior observed in societies which have been under colonial rule is a matter to be investigated. Emphasizing more "traditional" aspects of culture and social organization in descriptions of such societies may present a picture of a culture and social organization which never existed.
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