PASSING LIKE FLOWERS:
THE MARRIAGE REGULATIONS OF THE TUGEN OF KENYA AND
THEIR IMPLICATIONS FOR A THEORY OF CROW-OMAHA

BY

DAVID WELLINGTON WILLIAM KETTEL
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN, 1975
I HEREBY RECOMMEND THAT THE THESIS PREPARED UNDER MY SUPERVISION BY DAVID WELLINGTON WILLIAM KETTEL ENTITLED PASSING LIKE FLOWERS: THE MARRIAGE REGULATIONS OF THE Tugen OF KENYA AND THEIR IMPLICATIONS FOR A THEORY OF CROW–OMAHA BE ACCEPTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

In Charge of Thesis

Head of Department

Committee on Final Examination†

† Required for doctor's degree but not for master's.
PASSING LIKE FLOWERS:
THE MARRIAGE REGULATIONS OF THE TUGEN OF KENYA AND
THEIR IMPLICATIONS FOR A THEORY OF CROW-GMAHA

BY

DAVID WELLINGTON WILLIAM KETTEL

B.A., University of Toronto, 1964
M.A., University of Toronto, 1966

THESIS

Submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Anthropology in the Graduate College of the University of Illinois at Urbana-Champaign, 1975

Urbana, Illinois
© Copyright by
David Wellington William Kettel
1975
"We women are always passing like flowers..."

Helenah jebo Kimengech
Seretunin Center, 1971
DEDICATION

This dissertation is dedicated to
Bonnie Lee Kettel,
my colleague and wife.
The fieldwork for this dissertation was made possible by a predoctoral fellowship (number 1 FO1 MH51083-01) from the National Institute of Mental Health. My thanks go to the Institute for the grant which both enabled my fieldwork and provided the funds for a year which allowed me to write a preliminary draft of the dissertation.

I am most grateful to the Office of the President, Republic of Kenya for granting me permission to do the fieldwork and I am appreciative of the Institute of African Studies, University of Nairobi, and especially Mrs. Kusuan Jerath, who was Secretary of the Institute during our stay in Kenya, for facilitating things and making our visit that much more pleasant.

There is no space to mention individually all of the people who helped me in Kenya, but I must thank most gratefully Eric Cheregony, Chief of Ewolel Location, Baringo District, David Arap Ng'osos, Helena Kimengech, and Richard Chebor. I am happy to thank my friends and colleagues, James Baltaxe, Bonnie Kettel, Richard Lowenthal, and David Rosen, for the many helpful discussions we had about my dissertation. Richard Lowenthal deserves special thanks for his particularly insightful comments and Bonnie Kettel, for her editorial suggestions.

Finally, I owe a debt of gratitude to my advisors, Dr. Charles Keller and Dr. F. K. Lehman, for their guidance
and critical, insightful comments. Dr. Lehman is the major influence in guiding my interests in the direction they have taken; the success and interest of this dissertation are in large measure due to his teaching.
A NOTE ON ORTHOGRAPHY

The spelling of Kalenjin terms in this dissertation comes from my Kalenjin informants who are literate in both Kalenjin and English. Pronunciations of Kalenjin terms is in accordance with the International Phonetic Alphabet with three exceptions. These are ng', the nasal velar continuant, ny, the voiceless nasal alveopalatal, and the low-mid, unrounded back vowel ('open o'), which is represented simply as o. Kalenjin does not have the 'closed o' vowel.
PASSING LIKE FLOWERS:
THE MARRIAGE REGULATIONS OF THE TUGEN OF KENYA AND
THEIR IMPLICATIONS FOR A THEORY OF CROW-OMAHA

David Wellington William Kettel, Ph.D.
Department of Anthropology
University of Illinois at Urbana-Champaign, 1975

The dissertation presents an alliance model of Crow-Omaha marriage-system constraints based on the ethnographic description of the marriage and kinship relations of the Tugen of Kenya. Both Crow-Omaha and asymmetrical alliance constraints are shown to be logical derivatives of this model. Furthermore, the parameters on which the model is based seem to constrain all marriage alliance systems, regardless of the mode of lineation utilized.

Implicit in the model is a theorem which stipulates that systems operating within Crow-Omaha and asymmetrical alliance constraints require specific minimum numbers of alliance units. These numbers are shown to be those reported to be associated with Crow-Omaha systems in a variety of symbolic contexts.

Several implications of importance for anthropological theory follow from the model. First, different social classes in stratified regimes operating with Crow-Omaha constraints are likely to have different minimum numbers; the higher the stratum, the lower the number. This suggests an explanation for the origin of the common Indo-European symbolic oppositions, where three is sacred, thirteen denotes misfortune, and numbers in between like five and seven are associated with good luck.
Since Crow-Omaha systems, in contrast to asymmetrical alliance systems, involve more prohibitions, and therefore, larger minimum numbers of alliance units, they are less amenable to the manipulation for the advantage of a particular alliance group than are asymmetrical alliance systems proper. The model thus has implications for our understanding of the process of social stratification.

The similarity of kin classification systems typically associated with both Crow-Omaha and asymmetrical alliance is shown to result from interaction between the processes of kin classification and marriage alliance. Crow-Omaha kin classification is meaningless in the absence of Crow-Omaha marriage constraints, but people with such constraints need not have a Crow-Omaha classification. If they do, then they have the simplest kin classification which encodes the maximum amount of information about the relative social statuses of interacting persons vis à vis the alliance relationship linking their kin groups. Variations within the class of Crow-Omaha systems are shown to be related to different value-assignments of the parameters of the model.

The dissertation demonstrates that theoretical discussions about Crow-Omaha or asymmetrical alliance in recent years are mistaken or misleading. Most notably it falsifies Needham's claim that Omaha and, by implication, Crow kinship systems do not constitute a class of systems with any analytical value or validity. Furthermore, Radcliffe-Brown's notion of lineage solidarity is shown to be irrelevant.
Finally, the model suggests an ecological-adaptive basis for Crow-Omaha marriage rules. The suggestion is speculative, but it follows from the theory, and provides an area of some interest for further research.
TABLE OF CONTENTS

CHAPTER | Page
--- | ---
I. INTRODUCTION | 1
A. The Problem | 1
B. Methodology and Theoretical Assumptions | 4

II. GENERAL ETHNOGRAPHIC MATERIAL | 6
A. The Tugen and their Environment | 6
B. Territorial and Political Organization | 9
C. Age-organization | 13
D. Kin Corporations | 22

III. MARRIAGE AND ALLIANCE IN TUGEN SOCIETY | 31
A. Marriage and Age-organization | 31
B. Pre-marital Sexual Relations and Mate Selection | 33
C. Marriage Prohibitions and Alliance | 36
D. Alliance and Relationships among Lineages | 37

IV. TUGEN ALLIANCE AND MARRIAGE SYSTEM PARAMETERS | 41
A. Tugen Kin Classification and Alliance | 41
B. Marriage System Parameters and Minimum Numbers | 56

V. CONCLUSIONS: A THEORY OF CROW-OMAHA MARRIAGE SYSTEMS | 59
A. Crow-Omaha Marriage and Asymmetrical Alliance | 59
B. Crow-Omaha Terminology: Simplicity and Information-carrying Capacity | 63
C. Buchler, Selby and Lounsbury on Crow-Omaha: A Critique | 67
D. Prescription or Preference: Claude Lévi-Strauss and Rodney Needham | 70
E. Marriage Parameters and Social Stratification | 72
F. Omaha System Origins: Some Ecological Speculations | 74
G. Concluding Remarks | 80

APPENDIX A: NAMES AND SUB-LOCATIONS OF SOME CENTRAL AND NORTHERN TUGEN CLANS | 89

APPENDIX B: KERIO KALENJIN AGE-SET NAMES AND THEIR CURRENT GRADE PHASES | 90

LITERATURE CITED | 91

VITA | 94
A. The Problem

This dissertation presents an analysis of the marriage alliance rules which underly the kinship system of the Tugen of Central Rift Valley Province of Kenya. I argue that a pair of marriage alliance parameters are discernable in the Tugen marriage system (an Omaha variant). These parameters are motivated by the fact that they describe the essentials of marriage alliance systems other than Crow-Omaha. This analysis serves to illustrate the major thesis that there is a relationship between marriage alliance rules and Crow-Omaha kin classification systems.

My claim is that if a society has a Crow-Omaha kin classification system, then perforce its members must marry each other according to a set of rules corresponding to particular values of, and relations on this pair of parameters. Crow-Omaha terminology, variations to the class of systems notwithstanding, provides the simplest kin classification which conveys the most information about the relationship obtaining between persons who are members of groups which are allied to each other in accordance with this set of rules.

Description of asymmetrical alliance systems such as found in South-east Asia and Indonesia, in terms of this pair of parameters, is shown later in the dissertation to illuminate
the relationship between Crow-Omaha marriage systems on the one hand, and asymmetrical alliance on the other. It does in fact solve the 'Crow-Omaha problem' discussed by Lévi-Strauss (1965, 1969), Needham (1962, 1971), Buchler and Selby (1968), and Lounsbury (1969). Specifically, Crow-Omaha marriage systems, and asymmetrical systems, are shown to have the same infra-structure. That is to say that an abstract model can be constructed from which both Crow-Omaha and asymmetrical rules may be logically derived. Lounsbury's claim that typical asymmetrical terminologies are Crow-Omaha variants lends support to this argument (see Lounsbury, 1969).

An interesting consequence results from the parametric constraints on marriage alliance relationships. Ethnographers have repeatedly reported that societies with Crow-Omaha marriage systems have certain numbers, most commonly five, seven, nine, and thirteen, as the number of clans into which these societies are divided (see Lévi-Strauss, 1965). Sometimes it is reported that these numbers are put to other symbolic uses such as village or camp settlement arrangements, or that they figure in cosmologies (see Zuidema, 1965). Zuidema felt that this association of these numbers with Crow-Omaha was an inherent structural property of these systems. His intuition is given formal substantiation in this dissertation since I show that parametric constraints of Crow-Omaha type determine that there is a set of minimum numbers of alliance units which societies must have if they are to abide
by these constraints. The numbers which have been reported in ethnographies are either the same as, or close to, these minimum numbers.

Furthermore, this feature of necessary minimum numbers of alliance units is shown theoretically to have implications for the process of social stratification. The minimum number of alliance units which any particular system may have is also the smallest number of groups which can be allied contemporarily in a closed or 'connubial' cycle in the given system. I show that this implies that the larger the minimum number is, the more difficult it is to manipulate marriage alliances to aid and abet a process of social stratification for the advantage of any particular group. A Crow-Omaha system cannot have less than five as the minimum, whereas for asymmetrical systems the minimum is three. In terms of my claim above this implies that asymmetrical systems are more easily manipulated in this way than is any Crow-Omaha system.

This suggests that whenever Crow-Omaha is associated with a stratified regime, different minimum numbers are associated with different strata, where the lower the social stratum is, the larger the minimum number will be. This issue is discussed later in the dissertation. However, it further suggests a structural basis for differential valuations which are sometimes placed on numbers exemplified, for instance, by the Indo-European oppositions of three as sacred, thirteen as unlucky, and odd numbers in between, notably five or seven, as symbolizing good fortune.
Finally, I present a cultural-ecological argument about the origin of a Crow-Omaha marriage system. It is admittedly speculative, but it is based on my Tugen field research, and is presented as a suggestion for further investigation.

B. Methodology and Theoretical Assumptions

The field data used to illustrate the theoretical claims of this dissertation were gathered by means of the ordinary ethnographic techniques generally called 'participant observation'. By this I mean that I listened to, and participated in conversations in various social contexts, and inquired about observations and tentative conclusions I had made in the midst of daily Tugen life. In addition, of course, I conducted interviews. Although I came to understand the Tugen dialect of Kalenjin reasonably well for the purposes of my problem, I never developed competence in speaking. To overcome this, and for other reasons, I was accompanied on most occasions by a native field assistant who acted as an interpreter. After conversations and interviews data were discussed with my field assistant, and other Tugen friends.

One basic theoretical assumption of this dissertation, increasingly shared with many anthropologists, is that cultural systems are like languages in that they are to be described in terms of rules which elucidate a native actor's knowledge and competence in interpreting and monitoring behavior, his own,
and that of his fellows. A methodological implication of this view is that just as language, as a system of rules for interpreting speech communication, is not to be confused with speech, culture is not to be confused, in a broader sense, with behavior, although behavior, particularly speech behavior, comprises the data.

A further implication of this view of culture is that aspects of certain culture systems, whether historically related or not, show commonalities in the structure of their rules, or can be shown to have a common meta-structure which relates to similarities observable in their surface structures. The claims made above about Crow-Omaha and asymmetrical alliance systems, or about relations on marriage-system parameters and minimum numbers of alliance units are cases in point. Such properties of different culture systems transcend the knowledge which any native actor might have.

I use formal, mathematical notation, which has been developed primarily by F. K. Lehman and K. Witz of the University of Illinois, with other purposes in mind, later in the dissertation. I have done this because this formal apparatus best facilitates reasoning about relational properties displayed by culture systems.
CHAPTER II
GENERAL ETHNOGRAPHIC MATERIAL

A. The Tugen and their Environment

Apart from simply giving information about the field-setting, a description of the Tugen habitat is relevant to the discussion on Omaha system origins in Section F of Chapter V, which presents a cultural-ecological argument.

According to the most recent census of Kenya, the Tugen, who live mainly in Baringo District in Western Kenya, number approximately 100,000 (Republic of Kenya, 1970). They speak a dialect of Kalenjin, a language classed as 'Southern Nilotic'. The Kalenjin cluster is most closely related linguistically to the Tatoga of Tanzania, but culturally they are similar to Maasai, who are of Eastern Nilotic linguistic affiliation (Greenberg, 1966:85-86).

The other tribes of the Kalenjin group are the Nandi, Kipsigis, Elgeyo, Marakwete, Ndo or Endo, and Sabeiny (Kony). The Sabeiny are found mostly in Uganda, but they extend into neighboring Kenya, where they are generally called Kony. The Pokot (Suk) are of Kalenjin speech, and, presumably, historical origins in part, but culturally they appear to be like Turkana and Karamojong, and so they are usually excluded from the category 'Kalenjin', especially by the Kalenjin themselves.

The name 'Kalenjin' is probably not more than a few decades old. Certainly before this century there was no
super-tribal label covering all the Kalenjin people. Kalenjin
I have talked with do not know when the word was first used,
nor under what circumstances it was coined. However, they all
say that it means "I say to you," implying commonality of
language and culture. Despite the previous lack of a super-
tribal label the Kalenjin have always recognized that their
specific tribal cultures are very similar, and that these
cultures derive from a common historical origin.

Tugen, like most of their Kalenjin brethren, inhabit a
beautiful but rugged hill zone. The Tugen Hills rise in a
salient from Eldama Ravine in the south, to the Kito Pass and
Pokot territory in the north. From a floor of about 4,000 feet
the Hills peak roughly at 7,000 to 8,000 feet, where most Tugen
reside.

On the west is the Kerio River Valley with the steep
Elgeyo-Marakwet Escarpment forming the western wall. To the
east is a wider semi-arid plain containing the fresh-water
Lake Baringo, and the brackish Lake Hannington. The Laikipiak
Escarpment rises to the east of Lake Baringo to the Laikipiak
Plateau, now an area of cattle ranches, but before this cen-
tury occupied by Il Laikipiak Maasai. The islands in the lake
are occupied by the stock-keeping and fishing Maa-speaking Il
Tiamus (Njemps). The shores to the west and south have a
fishery, an irrigation scheme which supports commercial onion
farming, and a few European establishments. The rest of the
plains land is used for stock grazing by Tugen, Il Tiamus and
Pokot.
Tugen utilize the varied micro-environments offered by their hilly habitat to raise cattle, sheep and goats, and to grow some crops, traditionally millet and some sorghum, but now mostly maize. The highland (masop) is given much more to crops, and a greater variety of them, than the lowland (soi) and intermediate (kamas) zones. In this they are quite like their neighbors the Elgeyo, Marakwet, and Ndo on the Escarpment to the west of the Kerio River. Together with the Tugen these four tribes will be termed the 'Kerio Kalenjin' in this dissertation.

The lowland and the intermediate slopes are decidedly hot and dry, and the area around Lake Baringo is heavily eroded from over-grazing. The combretum scrub and small acacia species which cover this zone attest to the fact that the climate tends to aridity. Altitude and the occasional forest cover ameliorate the temperature in the highlands, but even here the shrub and tree-types, such as combretum, acacia, Olea spp. (wild olive) and Euphorbia candelabra, which characterize the ubiquitous secondary growth, indicate that precipitation is uncertain both in amount and regularity. The highland people avoid the malaria of the lowlands (especially of the Kerio Valley) but their cattle cannot escape rinderpest and ticks, which bring debilitating and often fatal fever.

To complete this picture of harsh ecological uncertainty, I must add that, until recently, all of the people in this area used to raid each other for stock (and occasionally women),
and some still carry out this traditional pastime, especially the Turkana and the Pokot. Finally, in the highlands hailstorms sometimes destroy fields of crops, forcing people to depend on others to tide them over until another harvest. This harsh and unpredictable character of the ecology of the Tugen habitat necessitates certain kinds of adaptive responses, and it is on this fact that my argument about Omaha origins turns.

B. Territorial and Political Organization

Territorial organization was related to age organization traditionally, and councils of elders are still important in local administration. Today they are presided over by 'chiefs' who are government appointees, and who not infrequently are of the age-grade 'senior warriors' (i.e., they are not always 'elders'). However, age organization constrains marriage choices to this day, and consequently a description of it is necessary to the understanding of Tugen alliance. Indirectly a brief description of territorial organization is also required.

The largest traditionally autonomous territorial unit of the Tugen was termed pororiet (pl., pororiosiek), which British colonial administrators translated as 'location'. Locations or pororiosiek are still local administrative units in independent Kenya. Informants told me that the British changed the boundaries in few cases, and then only slightly, and retained the traditional names.
The British also fixed the boundary of the 'tribal territory' (eimet) as they found it on their arrival, and thus prevented the creation, with the growth of the population, of new pororiosiek on the edges of Tugen territory. Prior to the colonial era boundaries were determined by customary preferences, demographic conditions, and the political realities of inter-tribal relations, and not by an imposed imperial force. A consequence of this tribal containment policy was that population density began to increase in traditional locations beyond customary capacity.

As might be gathered from this, the label 'Tugen' in pre-colonial times designated the people of a region. But it had no political-administrative significance, since Tugen locations bordered on Nandi locations, and relationships between them did not differ from relationships between those within the Tugen area itself. The British stopped this, and by demarcating administrative boundaries, gave a definiteness to larger Kalenjin regional segments than they had ever had in the past. In this way the notion 'tribe' came into being.

Each location had a council of elders which was itself called pororiet. Headed by a prominent elder (kilwogin), a pororiet council was composed of elders (poiyot, poisiek) representing the constituent patricians (oret, ortinwek). The kilwogin had no authority to lead; he gained this status by force of personality, his ability to reconcile conflicting parties, and his eloquence and generosity. Authority was vested
in the council, never in an individual no matter how much he was respected.

The pororiet council advised raiding parties of pororiet warriors and blessed them, but only if they felt that the venture was sensible and auspicious. Pororiet elders disciplined the warriors through the threat of their curse, the reverse of their power to bless, which they had, and are still believed to have by virtue of their status as elders. But they were not always successful in restraining warriors from military ventures they felt were foolhardy. 9

Disputes among members of constituent clans and cases of wrong-doing were tried by the pororiet council, and still are, unless they are of a serious criminal nature, or defy resolution on the location level, in which instance cases go to a government court. The poisiek hold a preliminary hearing on the issue, even if it must go to a government court. Cases involving more than one location were heard by the relevant councils together.

Pororiet elders were, and are today as far as non-Christians are concerned, also responsible for the spiritual well-being of their location. Hence they conducted periodic prayers and sacrifices of stock to the diety (see note 18) to obtain his blessing, particularly for abundance of the next harvest, and for their own fertility and that of their stock. In conjunction with this, they presided over the round of age-set transition rituals. Finally, a pororiet council regulated,
and still does, community work by directing people, particularly groups of warriors, to keep paths clear and make new ones, to maintain and build bridges over streams, and the like.

For services rendered, such as blessings and completion of rituals, it is customary to give a gift of stock for a feast, or beer, or both, the amount varying with the service and circumstances. Fines were imposed on wrongdoers, whether individuals or a warrior age-set, and paid to the council in stock. A gift of stock and beer was also necessary for the removal of a curse. The judgements of the pororiet council were enforced by the warriors of the location, so that the elders had the sanction, not only of their curse, but also of punishment.

Each location comprised several smaller 'neighborhoods' (kokwet, kokwetinwek), each with its own council of elders, also called kokwet. My informants were vague about the boundaries of their neighborhoods. Furthermore, although two people of the same patri-clan will say that members of their clan resident in the clan area (koret), and wives of clansmen, are bikap kokwet ('people of the neighborhood'), they will not necessarily include all of the same people who are not resident in the clan area proper. This difference arises largely because they live in different parts of their clan area, and naturally have different neighbors, outside of koret residents.

The kokwet council for any Tugen is primarily the elders of the clan, or the elders of husband's clan for a married
woman, together with other elders of neighboring clans of the location who may be present at the time.

The composition of a kokwet council is not likely to be exactly the same from one meeting to the next. The role of this lower-level, local council for the neighborhood is essentially the same as the role of the pororiet council for the location. Litigation they may hear are cases and disputes within the neighborhood. Their decisions cannot be appealed on the level of the pororiet council. However, if the kokwet council is unable to resolve the case, or if one party requests that the case be tried by the pororiet council, then this takes place. Although administrative chiefs and courts, backed up by a police-force which elders cannot command, have greatly curtailed their authority, the elders still command respect (nkanyit). A good example of this attitude occurred when I was talking with a group of young men in a local bar. One of them noticed an elder approaching and said to me, "Things will be well now, here comes an elder of the kokwet."

C. Age-organization

Something of Tugen age-organization has been described in the foregoing, but more must be said than can properly be discussed under 'territorial and political organization'. The relevance of age-organization to both kinship and marriage is made clear in Section A of Chapter III.
Every Tugen is a member of a social age category which is termed in Tugen dialect, ebendo (pl., ebenwogik), which has a particular name, and which, in keeping with Africanist ethnographic practice, I shall refer to as an 'age-set'. Formally, males take up active membership in an age-set in adolescence, but only after they have undergone circumcision rites (kamuratan). Females join an age-set of their own in an analogous way by undergoing rites of clitoridectomy (soee). At this point, a Tugen is considered to be an adult, and not until then.

For a time after circumcision, the men occupy a role category (an 'age-grade') called morenik (s., moren), 'warriors', or more appropriately today, 'non-elder men'. Some years later, by virtue of undergoing other rites of passage, they become 'elders' (poisiek) and have duties and rights different from those they had while they were morenik. The age-set they joined at circumcision, however, is not changed; a Tugen is a member of this age-set for life, and can join no other.

Women analogously occupy an age-grade labelled jepyosok (s., jepyosee), 'mothers', which they expect to be soon just in case they are not. Some years later, just as their husbands become elders, women become elders' wives and are called collectively 'grandmothers' (kogosiek). The fact that women are labelled by a plural form of a kin-term, in contrast to the men, who are called neither 'fathers' nor 'grandfathers', underscores the fact that their roles are primarily domestic.
The age-categories of the women are decidedly secondary to those of the men, reflecting the fact that women are considered inferior. This does not mean that women are to be treated with disrespect.

There are never more than two fully recruited age-sets occupying the warrior grade at any one time, and only one age-set for each sex will be in formation over a given interval, at the end of which period (around fifteen years) the set will be declared fully recruited and closed by pororiet elders. Moreover, a man must be an elder before his son may enter the warrior grade, although it may be that not everyone of the man's age-set has undergone the rites for transition to elderhood status. Similarly, a man's daughter may not undergo the soee rites before her father has become an elder. From this it follows that a person's father is never a member of the age-set which had been formed just prior to one's own. I shall refer to such an age-set as the 'senior adjacent set'.

From what I have said above, it should be gathered that for each age-set of males there is a paired age-set of females which recruited over the same ritual period. I shall refer to such a pair of age-sets as 'parallel sets'. Consequently, between the age-set of a parent (sigindo) and that of an offspring (lakwe) there is at least one intervening set, i.e., an age-set which was formed after the period of recruitment of the parent's age-set, but before that of the offspring.
The most senior set in the warrior grade traditionally acted rather like military officers and disciplinarians to members of the junior adjacent set. Even today, when the role of warrior as such as lost its meaning, members of the senior set of the 'warriors' give orders to members of the junior adjacent age-set, and expect and receive obedience.

Members of an age-set are circumcized (or clitoridectomized) by members of the senior adjacent set. A group of four or five boys, invariably of the same clan but different patrilineages, are sponsored, circumcized, and instructed in the behavior becoming a man, by a member of the senior adjacent age-set. The ritual sponsor (motriot) is from the boys' kokwet. Such a group of boys, having become men, will address each other as bakule. For as long as they live they will address each other's relatives as if they were their own, i.e., as if the bakulesiek (plural of bakule) were siblings. It is as if the patrilineages of these newly made men have become one. The main consequence of this is that such patrilineages do not compete with each other for marriage alliances within the lifetimes of the bakulesiek. This is tantamount to effecting alliances among lineages which are forbidden to intermarry because of the rule of clan exogamy. Similarly, girls have ritual sponsors (jepyosokap tum), but they do not have relationships analogous to bakulesiek.

The main rights and duties of elders and warriors were described in Section B above. However, elders were discussed
as if they were undifferentiated with respect to role when they are not. Those of the most senior of age-sets are 'retired elders'. They have withdrawn from active social responsibilities, and for the most part stay at home. The other two age-sets comprise the active elders, with the senior-most of the two being the managers of ritual affairs. The junior set is, in effect, learning from the seniors, just as they did when they were warriors. It is unlikely that there will be more than three age-sets occupying the elder grade at any one time. If it does happen, then the retired elders will consist of two age-sets, the senior-most set having but a few old members. In pre-colonial times it is said that the members of such a remnant set sometimes went off to a remote spot, and there, holding hands in a circle would dance and sing their way to the edge of a cliff from which they would drop to their deaths. Since Tugen traditionally believed in reincarnation, they considered that this action, apart from ridding the community of a burden, would release their souls (chesawalok) to be recycled. This notion of reincarnation is related to both kinship and marriage and the mode of naming of age-sets and is therefore discussed later in Chapter III, Section A.

All of the Kenyan Kalenjin peoples have the same names for their age-sets, and they are in the same order of sequence, although not necessarily in the same phases of correlation with the age-grades. The names and current grade phases of the
age-sets of the Kerio Kalenjin are listed in Appendix B. The inter-relationship among age-sets in terms of father-son placement and sequence order of names is diagrammed below:

Note: The expected placement of sons (head of arrow) with respect to fathers (tail of arrow) is indicated by the solid arrows. The broken arrows similarly indicate the placement of initiates with respect to ritual sponsors-instructors.

Figure 1. Age-set inter-relationships.
The name Maina was dropped by the Tugen in the early nineteenth century. At that time, the Maina age-set of Tugen fought their opposite numbers in Elgeyo, and were seriously defeated. Only a remnant of them returned home. The elders decreed that the few Maina remaining were to join Nyongi, and that the name was to be dropped forever, lest a disaster similar in nature and proportion reoccur the next time a set of that name occupied the grade of senior warrior. Since then the Tugen have had only seven age-set names to cycle. Another example of age-set name deletion occurred in the 1940’s in Marakwete and Ndo. The name Kipkoimet was deleted, and Kaberur ('House of the Blessing') replaced it (see note 16).

Tugen expect to find that a man and at least some of his offspring are members of age-sets which have one, and only one, age-set intervening between them, and insist that for any of his children there are at most two intervening sets. The formal verbal model of the age-set system which Tugen gave to me, time and again, is phrased in terms of a single age-set intervening between father and offspring. With a sequence of eight names, the model predicts that the age-set of a man's great-great grandsons will bear the same name as his own age-set. Moreover, given the Tugen custom requiring that one of a man's agnatic grandsons inherit his personal name (and similarly, one of a woman's sons' daughters), one of the great-great grandsons (-daughters) is also expected to bear
his (her) name. The name is never given while the grandparent is alive, for as the Tugen say, "the young one is strong; the old one is weak, he will die."

This name mysticism finds a parallel in the age-set system. In terms of the model, one's great-great grandchild, and therefore one's second consecutive reincarnation, will be initiated into the eighth subsequent age-set. It is just this age-set which will bear the same name as one's own age-set. It was told that this age-set would never be opened for initiation before all the old people of the previous set with the same name had died, for the same mystical reasons as given above. With an eight-name cycle and a period of 120 years it is a remote possibility that members of the previous set would survive; with seven names and 105 years the possibility is less remote but still improbable.

Kin-reincarnation concepts of this sort are a means of symbolically identifying people of alternate generations, and the Tugen have many ways of symbolizing this (see note 31). Tugen and others of the Kalenjin cluster have extended this to encompass members of the relevant age-sets as well. Many people of quite unrelated cultural traditions, of course, symbolize conceptual unity of alternate generations without having recourse to a notion of reincarnation. Moreover, some people claim that it is the generations of great-grandparents and great-grandchildren which are reincarnation-linked. The Inca and Inca-derived people make this claim, for instance.
In this latter case, the marriage choices of the great-grandparents constrain the marriage choices of the great-grandchildren, but the fifth descendant generation is not so constrained (R. T. Zuidema, personal communications). In this way the boundaries of the descent-line segment whose members are constrained in common by the marriage choices of these great-grandparents are marked by reincarnation. This is precisely what the Tugen do, only for them the descent-line segment is three generations in length and not four (see the next Section D, especially page 26 and Chapter III, Section C). Consequently, Tugen are not merely symbolizing the conceptual identity and solidarity of alternate generations.

Kin-reincarnation notions have realization then in the absence of age-set organization. I argue that they will inevitably come to mind given age-set organization and the cyclical mode of naming. I claim this on the grounds that human brains apparently unify and thereby simplify the encoding of information about different cognitive domains, in this case domains of social structure, whenever possible by constructing a single underlying model from which the domains can be derived by transformation, i.e., the domains are rendered homomorphisms of each other. The operation which renders the domains of lineage structure, marriage alliance, and age-organization (see Section A of Chapter III) as mutual homomorphisms has surface realization as a theory of reincarnation.
Age-set systems which have formation and promotion rules such as those described above are definable as "well-formed" (see R. Lowenthal, Chapter IV). Lowenthal has elegantly demonstrated that it is only well-formed systems which can have predictability of age-set placement. From this it follows that only well-formed systems can give rise to cyclical concepts.16

D. Kin Corporations

In addition to being structured into territorial and age-categorical units, Tugen society is also divided into kin groupings. These are the major units which control marriage, and as such are of central relevance to the problem of this dissertation.

The most inclusive level of kin grouping is the exogamous clan (oret). A Tugen belongs to the clan of his or her father, and to no other clan. If you ask a Tugen for the name of his clan, the reply will be one of thirteen names (see Appendix A). Central Tugen informants told me that this number (thirteen) most likely exhausted the list, but that there might be a name or two in Southern Tugen that they did not know.

As was mentioned in Section B above, each clan has its own residential area, on which only clan members, or their wives, may live and cultivate crops. Each of these areas is located within a territorial unit called pororiet. An ethnographer soon finds some of the same clan names cropping up in
several pororiosiek. If you then ask a Tugen whether or not his clan is the same as a clan of the same name, but of another location, the reply will most likely be that it is not. You will probably then be told the secondary, distinguishing names of the clans in question; a reply might be, for instance, "My clan is Kabon Kabaraot, and the other one is Kabon Kapchereker ... they are different clans." These may or may not have a common origin in a single ancestral clan. No informant ever gave me the secondary or minor name of his clan, unless I inquired further in this way. In a few cases the reply will be that the two are one and the same clan. In this case, one or both of them will be found to have moved away from an original clan area (koret) for reasons of population or grazing pressure. They will be considered to be different clans after the age-set names have moved through one cycle from the position marked by the name of the age-set occupying the senior warrior grade when the move was made. After this time the rule of clan exogamy no longer obtains between the two. These facts are interesting in the light of my claims about minimum numbers of alliance units; as will be seen the minimum number for the Tugen is nine.

Most minor names take the form of the name of a man or a place, usually prefixed by kap-, meaning 'place of or house of'. If the name is a man's, it is that of the prominent elder of a nucleus of people said to have first settled in the location of the clan at some time in the past. In the case of a place name,
e.g., Kapchememengai, 'house of those who are from Menengai', the place or direction from which the founding nucleus came is indicated.\textsuperscript{17}

Tugen clans have associated emblems called tiong'ik (s., tiony) which means 'animals', despite the fact that two emblems, ilat, 'lightning-thunder', and asista, 'the sun',\textsuperscript{18} are not. Except for guinea fowl, which they eat rarely, Tugen say they do not eat any of the emblem species, and that they consider them simply as non-food. In general emblems are chosen from the class of non-edibles. This is simply a case of the use of a natural species or phenomenon to mark each clan as distinct from the other (see Claude Lévi-Strauss, 1963).

While Tugen patriclans are exogamous, they are not alliance-contracting units. Only lineages (kapchi)\textsuperscript{19} contract alliances. Although lineages are embedded in clans, women acquire membership only in the lineages of their legitimate children, not in their offsprings' clans. At the same time women retain membership in the lineages of their birth, and have a continuing interest in the alliances of their natal lineages.

This retention of membership in the natal clan is most evident on occasions of marital discord. If it is sufficiently distressing, a woman is likely to leave her husband's home, and return to her own clan area, where temporary accommodations are made for her. Sooner or later, a favorite sister of the husband will be sent to persuade the wife to return. It is also a man's
sister who asks the bride to go back with her on the wedding day ritual.

The rights a member of a clan has are those to use clan land for permanent residence, and for cultivation. Cultivated land is inherited in the sense that a man, particularly a first-born son, or a last-born son (towe),\textsuperscript{20} inherits the plots his father assigned to his mother. Land is of less significance, or was in the past, than stock, for cultivable land was eventually redistributed by clan elders on the basis of need if imbalances occurred.\textsuperscript{21} Land not being cultivated was theoretically a free good.\textsuperscript{22}

Stock division is a lineage concern. The nucleus of a man's herd, apart from stock acquired through purchase, or in the past, in raiding, is formed when his mother receives her allotment on her wedding day.

The families embedded in a lineage, i.e., the mother-children units, consume independently, but produce in co-operation. They also co-operate in the staging of the life-cycle rituals of the lineage's members. For example, when a deceased man's stock are to be divided according to his wishes, they are gathered together in a corral, and blessed by the senior elder of the lineage who sprays them with mouthfuls of milk. The members of the lineage gathered to partake in, or witness the event are sprayed with mouthfuls of beer. The stock are then divided according to the man's will.
The lineage category, kapchi, like oret (clan), is a corporation because there is a jural test for membership; it is by birth through agnatic affiliation. Kapchi, however, is an elastic term because every male becomes a lineage founder eventually, provided he has offspring.

From any individual if you count back three generations, you will come to a lineage founder. Every Tugen man X is eventually a lineage founder to those of the first, second, and third generations below him in the agnatic line, and ceases to be for the fourth. Agnatically related people with these generational bounds address each other by kin-terms; people of the fourth generation below X, although agnatically related, address each other just as they do unrelated persons.

The basic data concerning Tugen lineages is amenable to mathematical treatment. My motivation for treating the data in this way is that significant generalizations about structural properties and relationships can best be realized by using mathematical modelling. A mathematical symbolism to describe lineage structure is available in the notational system developed by F. K. Lehman and K. Witz, both of the University of Illinois (see Lehman and Witz, in press). This system was not expressly developed for the purposes to which it is put here, but it serves well for the formal description of Tugen lineages.
Tugen computations about kinship relations work through patrifiliation. Such computations can be represented in the form of genealogical claim strings:

\[(\sigma_0 x_1 \sigma_1, (a_0, a_1)) \cdots (\sigma_{n-1} x_n \sigma_n, (a_{n-1}, a_n))\]

The elements of this string are \(\sigma_i, j\), \(a_i, j\), and \(x_i, j\) forming a set of elementary genealogical claims represented by the ordered pair \((\sigma_i x_j \sigma_j, (a_i, a_j))\), where \(j=i+1\), and \(i=0, 1, \ldots, n-1\). The elements \(\sigma_i, j\) represent 'primitive sex values', either \(m\) ('is male') or \(f\) ('is female'), \(a_i, j\) are individuals, and \(x_i, j\) are 'primitive filiation elements', each equal to \(p\) ('is a parent of'). The elementary genealogical claim above thus has the interpretation, '\(a_i\) is an individual of sex \(\sigma_i\) whose parent is individual \(a_j\) of sex \(\sigma_j\)'.

In the Tugen case, lineage membership is determined by the following rules:

**L1.** If \(a_j \in K\) (a lineage) then \(a_i \in K\) (i.e., \(a_i\) belongs to lineage \(K\)) where \(\sigma_j = m\), \(x_j = p\) in the claim \((\sigma_i x_j \sigma_j, (a_i, a_j))\);

**L2.** If \(a_i \in K\) and if \((\sigma_i x_j \sigma_j, (a_i, a_j))\) where \(x_j = p\) then \(a_j \in K\).

**L1** stipulates that if individual \(a_j\) belongs to lineage \(K\), and \(a_j\) is the male parent of individual \(a_i\), then \(a_i\) belongs to \(K\).

**L2** is translated simply as 'any woman is a member of the lineage of her legitimate children'.

With respect to membership in \( K \), in the claim string

\[
(\sigma_0 \times a_1, (a_0, a_1)), \ldots, (\sigma_{n-1} \times a_n, (a_{n-1}, a_n)),
\]

considering that \( a_i \in K \), where \( i = 0, \ldots, n \), \( n \) has an upper bound of three, but with respect to a membership claim in \( 0 \) (a clan), \( n \) has no upper bound.

However, the set of lineages \( K \) is embedded in the set of clans \( O \) so that each \( K_i \in 0_j \in O \). The rule \( L2 \) does not apply in the case of clan membership. Women may not be founders of an \( 0 \), but a woman may found a \( K \) (lineage). This is implied by the following rule:

\[ L3. \text{ if } a_j \in K \text{ by } L2, \text{ then } a_j(f) \text{ can be a founder of } K, \]

i.e., by \( L2 \), a parent is a member of child's lineage, and the only one above that child is the mother, therefore the mother is the founder. This demonstrates formally that there is no necessary contradiction in a patrilineal system in the case of a woman founding a lineage. A founder is simply a name. In the past, and even at the present time in some Tugen areas, it would be denied that a woman can found a lineage, since all women are married to men, and Tugen do not have the Nandi custom of 'woman marriage'. However, in the central and northern highlands there are now many cases of unwed mothers. The only solution to this 'problem' is to incorporate the unwed mother and her offspring as segments of the mother's clan, which is in fact what is being done. Eventually a fission
lineage with a male child of such a mother will result, and the founder has to be the mother who is above her offspring. Some children with absent fathers are already called Arap X, where X is the mother's personal name and Arap means 'son of'; normally the father's personal name would be used.

The term kapchi is used to apply to any case where \( n = 1, 2, 3 \). From L1 it follows that every male becomes a lineage founder. The number of generations over which alliance competition is blocked with respect to component lines of any lineage proves this. If you count back three generations you come to a founder, and a marriage with a member of one of the lineages fissioned from the lineage of the founder's spouse is permissible.

A man is the founder of separate lineages with respect to each of his wives. By the interaction of L1 and L2, every unique \( K \in \mathcal{O} \) is given by a unique succession of fathers and their wives.

F. K. Lehman has discovered a corollary of L1 and L2.

If \( a_j \in K_x \) and also \( a_i \in K_s \) and by L2 \( b_x \) (therefore female) \( \in K_x \), and \( b_y \) (\( \neq b_x \) \( \in K_y \) by L2 (\( b_y \) is therefore female also), then \( K_x \neq K_y \): \( a_i, a_j \in K_x \) if \( b_x \) is parent of \( a_j \) but \( a_i, a_j \in K_y \) if \( b_y \) is parent of \( a_j \).

This stipulates that if individuals \( a_i \) and \( a_j \) belong to lineage \( K_s \) (as in L1), and by L2 individual \( b_x \) belongs to \( K \) (\( b_x \) is therefore female), and also by L2, \( b_y \) belongs to \( K \) (and \( b_y \) is
not $b_x$, then $K_x$ is not lineage $K_y$, such that $a_i$ and $a_j$ both belong to $K_x$ if $b_x$ is parent of $a_j$, but $a_i$ and $a_j$ both belong to $K_y$ if $b_y$ is parent of $a_j$.

In other words, as Tugen (and indeed Kalenjin) lineages grow and fission, they do not segment. If segmentation occurred, there would be nestling and ranking of segments in accordance with varying genealogical distances from ascendant male agnates, just as in the case of the Nuer (see E. E. Evans-Pritchard, 1940). Such segments coalesce or oppose each other over political issues, ideally in terms of closer or greater genealogical distance from the opposing segments centrally involved. This does not happen in Tugen. As time goes on, more and more lineages simply come into being, and old ones cease to exist. Clans simply comprise a number of kapchi; there is no nestling and ranking of lineages within a clan, anymore than there is of clans which compose any larger unit. This supports Evans-Pritchard's conclusions (1940: 265-6) that kinship is not important for politics in Kalenjin tribes.
CHAPTER III
MARRIAGE AND ALLIANCE IN TUGEN SOCIETY

A. Marriage and Age-organization

A Tugen cannot marry unless he or she has been initiated into adulthood (see Chapter II, Sections B and C). Before this takes place a person is excluded from the serious business of society. But the age-category system also constrains marriage choices. A man cannot marry women who are of an age-set parallel to any set of males senior to his own. He may choose a mate from the age-set parallel to his own, or from the one junior and adjacent to it, and from no other.

A man's first wife is usually of the age-set parallel to his own; and he may eventually take a wife from the junior adjacent set. Sexual liason between a woman of a senior adjacent age-set and a male of the junior set is regarded as unseemly, and the woman, if discovered, is liable to be ridiculed. But sexual liason between a woman of the senior age-set once removed, and a junior male is regarded as incestuous and a sin (ngoki). Sexual liaisons between persons at an even greater age-set remove is ludicrous, but not unthinkable.23

The schema of reincarnation, a belief complex related to, among other things, the age-organization system, as I have argued in Chapter II above, explains some interesting beliefs and behavior concerning kinship relations and marriage. Belief in a grandparent to grandchild reincarnation cycle (see p. 19
above) implies that just as women marry outside of their natal lineages, they also reincarnate outside. Consequently, husband and wife will reincarnate as brother and sister. Female souls circulate among lineages and clans by rebirth, just as actual women circulate among them through marriage, according to traditional Tugen belief. Rebirth into a clan to which a female soul belonged in a previous life was possible after one intervening rebirth in another clan, at which point the age-set names would also have completed a cycle. Given that the reincarnation cycle actually does occur, and supposing that Tugen society actually operates with no more than the minimum number of groups according to the model of marriage discussed later, the recycling of female souls back to original clans synchronically with the cycling of age-set names is highly probable.

This pattern of reincarnation of females makes sense out of an interesting bit of customary behavior, which Tugen informants told me was done only because they had always done it, with the sanction of long tradition. This behavior can be observed in the interaction of genealogical grandparents and grandchildren of opposite sex. They can be heard addressing each other with spouse terminology, and making sexual innuendos, overtures and jokes as if they were married to each other. Sometimes the granddaughter will reply to her grandfather that she is not his wife because she would never marry such a dirty character as he. Grandmother and grandson may sometimes be
heard calling each other 'wife'; both of them are jokingly refusing the attribution of the more onerous female role. This behavior makes sense when understood in terms of the recycling of female souls, for in the next reincarnation grandparents and grandchild of opposite sex are potential spouses.²⁴

B. Pre-marital Sexual Relations and Mate Selection

Young, marriageable Tugen take almost any opportunity to be seen by, and flirt with members of the opposite sex and appropriate age-category. Sexual overtures and requests are made in a direct, matter-of-fact manner that would probably surprise the most sexually liberated Europeans or Americans.

From time to time a young man will invite marriageable women to spend a night at his house. This is his own home, not his parents' house, for he has not resided there since he was a young boy.²⁵ Eventually, such meetings with a favorite increase in frequency. If the woman becomes pregnant, a rather likely event, people anticipate that the man will take the woman as his wife. In the past, if he showed any reluctance he would be forced to 'do the right thing'.²⁶ The fact that the couple have become husband and wife is formally marked by the man's sending about ten pots of beer, and perhaps some mead, to the woman's parents.²⁷ This is consumed by the adults of the woman's lineage, the first cup going to her eldest brother, before the pot has been set on the ground.
In the event that a young man does not pre-maritally impregnate a young woman (and he should not), his father will sooner or later suggest that he take a wife, and will ask his son the names of some young women he would like to marry. Local elders are consulted about each of the young women. For each consultation they must be given beer, even if it turns out that the woman is not suitable because of marriage connections already established. When a suitable woman is decided on, the man's parents make it known to the woman's parents that the son wishes to marry their daughter. Then they in turn inform the woman. If she consents, the two will marry shortly. If she does not consent, and the parents consider it a good prospective alliance, they will put great social pressure on her to agree. However, they will not ultimately deny her wishes if she persists in refusing to marry the young man.

On the day of the wedding (ipisio, from keip korgo, 'to take a wife') a party consisting of the groom's friends and some lineage kin go to bring the bride to the groom's parents' home. The most important members of this party are the groom's ritual valet and stand-in, the bamwai, and a favorite sister. Neither the groom nor his parents (sigindo, sikeek) go; they stay and await the return of the wedding party. The sister asks for the bride in order to take her to her brother, while the bride's people fein reluctance and then outright refusal. A mock argument ensues, but eventually the sister is able to take the bride away. On the way to her future home, the bride
stops at each gully and stream course and refuses to cross. Members of the party coax her by offering her goats or sheep. Eventually she arrives, but she does not cross the threshold of the house until she has been allotted stock to her satisfaction. When she does cross the threshold she greets her parents-in-law. The couple spend the nuptial night alone in the groom's parents' house.

Once a woman steps across the threshold, the man acquires exclusive sexual rights in her (and she in him, unless he already has a wife or takes another, then she has shared, equal sexual access), rights to affiliate her offspring by him to his line, and in her domestic and subsistence-agricultural services.

She acquires the right to a house of her own, rights in the use of the marriage stock, which cannot be alienated without her express permission, and in land, and rights to periodic agricultural aid from her husband and his kin (in the event that she is a good wife, of course). Her marriage stock is the nucleus for the herds of her sons.

An alliance between the two lineages of a married couple follows from the birth of a child. In fact, the couple is not 'married' until this event. Before the birth of a child, a woman addresses her man by his father's personal name and refers to him as chitinyo, 'my person'. The man addresses his wife by her nickname, by the name of her clan, \(^{30}\) or as kwandanyo, and refers to her by korgenyo, 'my woman'. After they have a
child they address each other teknonymously as kwombo kerebo, 'father of our child' and kobot kerebo, 'mother of our child'. Much later, with the coming of a grandchild (in the man's agnatic line), the husband and wife address each other as kugo and kogo, 'grandfather' and 'grandmother' respectively.  

C. Marriage Prohibitions and Alliance

For the Tugen, kin connections and extant alliances create the primary constraints on marriage choices. An alliance is effected between two lineages on the basis of one, and only one, marriage. Any marriage is conditioned by the marriages of co-generational lineage members, of parental generation lineage members, and of grandparental generation lineage members. Marriages with members of any of the lineages allied by virtue of the marriages of members of these generations are prohibited. Sexual relations with such people are considered incestuous and are avoided.

The genealogical great-grandfather's marriage (with genealogical great-grandmother) blocks marriage with the great-grandmother's natal lineage just in case great-grandmother is still alive, a highly unlikely state of affairs. Consequently, the duration of prohibition, three generations inclusive of the founder, is the duration of a Tugen alliance. There is no pressure for a marriage between members of any pair of fission lineages stemming from two allied lineages to take place.
although under Tugen demographic conditions of small local populations and low density the likelihood of such marriages taking place at the generation of fission is high.

There is some expectation that such marriages will occur to judge from the ritual signalling of the end of an alliance. This is marked by the return of the belt (momosiet)\textsuperscript{34} of a woman who was married out to another lineage. The belt will have four rows of cowrie shells indicating that the deceased woman had given rise to a line now three generations long. A girl has a belt with a single line of cowries. When she has a child, a second row is added, and when a grandchild is born, a third one, and finally, with the birth of a great-grandchild, the fourth and last row completes the record-keeping. The four-rowed cowrie belt is returned around the neck of a nanny goat (which is a gift) by one of her male descendants of the third descending generation. Tugen say that marriages can then be contracted in that generation. These belts serve as mnemonic devices helping lineages keep track of the lapsing of their various alliances.

D. Alliance and Relationships among Lineages

Alliances of allies further constrain a person's marriage choices. This is best illustrated with a diagram; the cases are illustrated in Figure 2 below:
Note: Lines A, B, and C represent lineages, and the solid arrows indicate marriages and the direction in which women have been taken as wives. The broken lines indicate the generation in which a marriage may be contracted between members of lineages A and C. The improbability of such a marriage in case (c) is explained in the following text.

Figure 2. Alliance and relationships among lineages.
In (a) lineages A and C are both wife-takers of B, and in (b) A and C are both wife-givers of B. In either case lineages A and C are blocked from effecting an alliance with each other for the duration of the alliance between A and B. A marriage linkage between A and C in case (b) prior to the lapse of the alliances between A and B, and B and C, would provoke a relationship situation quite like case (a). In hypothetical case (c) a linkage in generation 2 between A and C is permissible just in case the woman linking A and B is dead. The probability of this is low, especially during the time when members of generation 2 are selecting marriage mates. An alliance between A and C in generation 3 is not blocked by this constraint.

An alliance between two lineages gives rise to asymmetrical status relations. Members of the giver lineage are considered to be status superiors. This is symbolized in behavioral expectations, attributions, and kin terminology. One Tugen said about his mother's people that "they are above us ... they are bigger than we are." The relationship of kin terminology to alliance will not be discussed here; this issue is taken up in Section A of Chapter IV.

Males of the giver lineage, excluding those above the generation of the linking woman, are attributed the power to curse to death members of the line descending from their lineage woman. This is particularly so in the case of the woman's genealogical brother; as for the others, Tugen are ambivalent
concerning this mystical power. This attributed power is balanced by an attributed mystical ability on the part of the woman to destroy her brother's line. She can do this in the event that her brother abuses her, particularly if he insults her sexually, or in the event that her brother consistently refuses to aid her children.

Members of the giver lineage must be invited to the celebrations associated with the life-cycle rituals of members of the line descending from their woman. They will not, however, be present at a scene of circumcision or clitoridectomy, nor may the ritual knife come from a giver lineage. If it were otherwise, Tugen believe that the initiate would die. In like fashion, they are absent from scenes of birth of children of their women, and from funeral and mourning scenes for members of the taker lineage, including their own woman. The fact of opposition and strict differentiation of giver and taker lineages is underscored by the separation of members of the two groups on the wedding day. On the occasions when they are invited, wife-givers are paid special deference, and given the best food and drink in larger portions than the other guests. Classificatory grandparents may be given ordinary portions because "they are farther away."
CHAPTER IV

TUGEN ALLIANCE AND MARRIAGE SYSTEM PARAMETERS

A. Tugen Kin Classification and Alliance

Tugen kin terminology and alliance relations interact. The essential Tugen marriage system is formally described by the following rules:

T1 An alliance is established between two alliance units by means of a single marriage of two persons, one from each group.

T2 An alliance has a duration of three generations including the generation contracting the marriage which establishes the alliance.

T3 The wife-giver to wife-taker relationship established by an alliance may not be reversed by subsequent marriages for the duration three.

T4 New marriages must be invested in establishing new alliances with hitherto non-allied groups for a period of three generations including the generation which establishes the alliance.

T5 Any pair of groups which have an ally in common cannot contract a mutual alliance for the duration of the alliance with the third group. (But see pages 56 and 57.)

A discussion of the distribution of kin terms among lineages related through alliances, direct and indirect
(i.e., related as allies of allies), will illustrate the interaction between alliance relations and the kin categorization process. Terms for collectivities of relatives are presented first. The set of persons covered by kin-terms, excluding members of the lineage to which one belongs (lineages in the case of married women), is called kaptilia. A man who takes a woman of one's own lineage as a wife is referred to as sandee. A segment of the lineage which he founds, including members through other women, is called kapsandee. To the members of the first descending generation of kapsandee, the reciprocal collective category is kamamae. Members of the third descending generation of the lineage founded by sandee (the boundary generation) are not considered to be related after the death of the linking woman; the alliance lapses at this generation. The subset of kaptilia which consists of all affinally related persons of wife-giving lineages who are not transformed into a consanguinal category (see below), except those addressed as oboi, is called kabigei.

I will begin my discussion of the relationship between kin categorization and alliance relations with the terms applied to agnates since certain non-agnatic relatives are transformed into agnates in the Tugen system. This is characteristic of Omaha systems generally. The terms applied to agnates within the lineage can be seen in Figure 3 below:
Generations: ascending

<table>
<thead>
<tr>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>akui</td>
</tr>
<tr>
<td>2</td>
<td>kugo</td>
</tr>
<tr>
<td>1</td>
<td>F</td>
</tr>
<tr>
<td>0</td>
<td>lemenyo</td>
</tr>
</tbody>
</table>

descending

<table>
<thead>
<tr>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>lakwe, werii*</td>
</tr>
<tr>
<td>2</td>
<td>kugo</td>
</tr>
<tr>
<td>3</td>
<td>G</td>
</tr>
</tbody>
</table>

Note: For an explanation of the asterisk see below. Sengee is a reciprocal term; the terminology for first and second descending generation is appropriate for a male speaker only.

Figure 3. Terms for agnates within the natal lineage.

The terminology for 'male, first ascending' and 'male or female, third descending' is complex; for this reason I have marked their spaces with F (for 'father') and G (for 'great-grandchild'). For a child (i.e., non-adult, non-initiated) F is baba, but for a woman, it is boker, and the reference term is kwondo. For a man, F is oboi, and the reference term, male speaking, is bonde. The oboi address is used reciprocally since it would be insulting if a man called another man, lakwe (or lkwani), which would imply that the man so addressed was a child. Someone in the category 'F' might call to a male
agnate, child or adult, by means of the term werii, however. Since the terminology for the category 'first descending male agnate' is complex and dependent on age status I have marked the relevant space in Figure 3 with an asterisk.

The term for G differs depending on whether or not the ritual called kebrikei has been performed (see note 24). Before kebrikei the term is chemagigat which translates literally as 'one not to greet'; after kebrikei, the term for G is mechekeret. These terms apply only to a genealogical great-grandchild, just as akui applies only to a genealogical great-grandparent (who is the lineage founder in case he is an agnate). That a great-grandparent should live long enough to be actually addressed as akui is unlikely.

In kin-type notation the terms in Figure 3 cover the following agnatic genealogical positions:

akui: FFF (actually PPP)
kugo: FF, FFB, SC (man speaking), BSC (man speaking)
sengee: FFZ, FZ, BSC (woman speaking, BC (woman speaking)
F: F, FB, FFBS
lemenyo: B, Z, FBC, FFBSC
lakwe, (lakwani): C, BC, FBSC (male speaker for all kin-types and just in case kin is male, then he is not an adult)
chemagigat, mechekeret: SSC (actually CCC).

The interaction of kin categorization and alliance relations is seen in the use of agnatic terms for non-agnatic kin, and in the generational skewing of wife-givers and wife-takers
which is also characteristic of Omaha systems. Here I discuss the use of agnatic terms for people outside the natal lineage. Later in this section I present examples of generational skewing.

The people of lineages which are related as A and C in Figure 2a of Chapter III, i.e., as wife-takers to a third group, address each other as if they constituted a single lineage. In other words, they use the agnatic terminology discussed above to address each other. People of lineages A and C are prohibited from intermarrying by virtue of their common relationship with B.

From the standpoint of A, vis a vis wife-taker lineages of C, there are further prohibitions on marriage. These prohibitions are centered on persons who are in descent lines of women from B. This is illustrated in the following figure:

![Marriage prohibitions in descent lines of women](image)

Note: Women from lineage B and the relevant positions in their descent lines are blacked-in; persons in such positions are prohibited from marrying persons of lineage A. Persons in positions marked with an X or a dot are also prohibited from marrying persons in lineage A. The blank squares (positions of either sex) are not so prohibited; people in these positions consider each other to be unrelated.

Figure 4. Marriage prohibitions in descent lines of women.
In Figure 4 persons in the positions marked by a dot are not marriageable by persons in lineage A; they are addressed by the term *tilia* which is reciprocal. This term should not be confused with *kaptilia* mentioned above. *Tilia* may also be used to address a friend. Generally the term refers to 'any individual who is called by a kin-term' and is best translated as 'relative'. Sexual relations are forbidden between persons who are *tilia* (excepting spouses) whether so addressed or not.

The agnatic terminology presented above also covers the following kin types:

**kugo:** FMZH, FFWZH, FFBWZH, FMBDH, FFWBDH, FFBWBDH, FMBSDH, FFWBSDH, FFBWBSDH, and reciprocals

**F:** MZH, FWZH, FBWZH, FFBSWZH, MDBH, FWBDH, FBWBDH, FFBWBDH, MBSDH, FWBSDH, FBWBSDH, FFBWBSDH, FMZS, FFWZS, FFBWZS

**sengee:** FMZD, FFWZD, FFBWZD, and reciprocals

**lemenyo:** MZC, FWZC, FBWZC, FFBWZC, MBDC, FWBDC, FFWBD, FMZSC, FFWZSC, FFBWZSC, WZH, BWZH (male speaker), FBSWZH (male speaker), FFBSSWZH (male speaker)

**lakwe, werii** (or jepto): reciprocals of *F* above.

The inclusion of taker-allies of givers in kin-categories with agnates fits logically with the terminology used by lineages A and C to classify and address members of lineage B, i.e., the wife-givers.
The terminology for the wives of males of the lineage (who may also be lineal kin) is given below in Figure 5. Some of these terms, especially akui, kogo, and M will reappear in the discussion of terms for people of wife-giving groups.

<table>
<thead>
<tr>
<th>Generations: ascending</th>
<th>3</th>
<th>akui</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>kogo</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>M</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>michei</td>
</tr>
<tr>
<td>Generations: descending</td>
<td>1</td>
<td>lakwe, jepto</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>K</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>see the discussion of G on p. 44</td>
</tr>
</tbody>
</table>

Note: For a woman the term for first or second generation descending is michei which is used reciprocally.

Figure 5. Terminology for wives of male agnates.

K is either kugo or kogo. The wife of a second generation ascending male agnate (who may be a genealogical grandmother) is addressed, kogo, and she replies with this term regardless of the sex of the person in the descendant reciprocal category. M is addressed either as mama or jepyosee depending on whether the speaker is a child or an adult, respectively. A person in the category marked M addresses adults of either sex by the
terms used to address them when they were children, i.e., *lakwe* (lakwani), *werii*, or *jepto*.

The terms used for male agnates in the first and second ascending generations and for their wifes are also used to address unrelated persons of the respective age-sets of relatives, and reciprocal address terms are entailed. Other kinship connections or terms are not entailed in this form of public address.

The terms for wives of male agnates cover the following kin-types (I have excluded the terms for the reciprocal kin-types):

- **akui**: FFM (only the person occupying this genealogical position)
- **kogo**: FFW (including FM), FFBW (this term is also used to address reciprocals of the foregoing kin-types and their spouses, and this is also true of the term *kugo*)
- **M**: M, FW, FBW, FFBSW (the reciprocals are covered by *lakwe*, *werii*, or *jepto* and so are the wives of male reciprocals)
- **michei**: BW, FBSW, FFBSSW, BSW (woman speaking), BSSW (woman speaking)
- **lakwe** (*jepto*): SW, BSW, FBSSW (but see M above)
- **K**: see kogo above, specifically the note on reciprocals.

The terminology applied to members of wife-giving lineages by the first descendant generation of the wife-taking group is as follows:
<table>
<thead>
<tr>
<th></th>
<th>male</th>
<th>female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>natal</td>
<td>in-married</td>
</tr>
<tr>
<td>ascending:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>akui</td>
<td>akui</td>
</tr>
<tr>
<td>2</td>
<td>kugo</td>
<td>kogo</td>
</tr>
<tr>
<td>1</td>
<td>mamae</td>
<td>&quot;</td>
</tr>
<tr>
<td>0</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>descending:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>2</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>3</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
</tbody>
</table>

Note: This chart illustrates the generational skewing characteristic of Omaha terminologies.

Figure 6. Consanguine terminology for members of a wife-giver lineage.

Positions in the agnatic line of own mother's father are classed as māmae and M beyond the third descending generation indefinitely (Tugen informants said 'forever'). One informant said that he was addressed as māmae by a very old man because he was in the agnatic line of the old man's mother's father. But my informant was born to a generation for whom the alliance which linked the elder's lineage and his own had lapsed, and meant nothing. He commented that he felt strange addressing the old man by the reciprocal term apolai.
The reciprocal terminology in this case need only be discussed with reference to the term mamae. If the person in the reciprocal position is male (he will be a member of a wife-taking lineage) the appropriate term is apolai. In the case of a female, the terms are lakwe or jepto. The reference term for apolai (or lakwe, jepto) is lakwetap taptmil.

Mamae covers the following kin types:

MB, MBS, MBSS ..., MBSSS ..., FWB, FWBS, FWBSS, FBWB, FBWBS, FBWBSS, FFBSWB, FFBSWBS, FFBSWBSS.

M (not to be confused with M) further includes the daughters of anyone described by the kin types covered by mamae, and the following:

MZ, MFZ, MFWD, MFBD, and any kin-type generated by substituting FW, FBW, or FFBSW for M in these last four kin-types.

From the perspective of the second descending generation of lineage A (from Figure 2a), a member of lineage B (the wife-giving lineage), excluding anyone in the third descending generation, is addressed kugo if male and, kogo, if female. These terms are used reciprocally in this case also. This is a further example of generational skewing. The spouses of these members of B are called simply tilia.

From the perspective of the third descending generation of A, counting the generation of the marriage link as zero, people of B cease to be kin, and are not addressed by any kin terminology, usage of parental and grandparental terms in
greeting notwithstanding. A member of the third descending generation in A may, of course, marry someone of that generation in B.

As implied in many of the kin-types listed above, there are a number of affinally connected positions which are transformed into consanguinal categories. There remain some kin-types which are like this yet to be mentioned. They are covered by the terms kugo and kogo:

**kugo:** (B)WFF, (B)WFFB, (B)WMF, (B)WMFB, and reciprocals;
(B)WMF

**kogo:** (B)WFFW, (B)WFFBW, (B)WMFM, (B)WMFW, (B)WMFBW, and reciprocals.

The brackets are meant to indicate that both kin-types with B present, and with B deleted, are in the category kugo/kogo. Persons described by the kin-types FBWFBWB (S)(S) and reciprocals are in the category kugo and those described by the kin-types FBWFBWB(Z) and FBWFBWB(S)D and reciprocals are in the category kogo. If the Lounsbury-type (see Lounsbury, 1969) reduction transformations FB → F, FW → M, and MZ → M are applied to these immediately preceding kin-types, then the reduced kin-types and all of the intermediate ones in the derivation, and their reciprocals, are also covered by the terms kugo and kogo. The spouses of persons described by this set of kin-types are tilia.

The set of genealogical positions which are covered by consanguinal terms has been exhausted, except for the term oboi
which is discussed further below. Other consanguinal positions are simply not covered by kin-terms; they are transformed into non-kin, and if they are not within your own clan, persons occupying them may even be marriageable.

There remains a small set of terms which categorize affinal positions which are not transformed into the consanguine category. These terms mark Tugen terminology as a variety of Omaha proper, and not as a kin classification associated with asymmetric alliance. In the latter case they would be unnecessary. This is discussed further in Chapter V. One of this set of terms, michei (parsinda on the Elgeyo-Marakwet Escarpment), has already been mentioned and defined. The other terms are bokinei, pomur (sometimes pomuru or pomurwai), and kabigoi. Each of the wives of males of the wife's natal lineage of the first ascending generation and below is addressed bokinei (boker in Elgeyo). Pomur is the term of address for any of wife's female agnates (confined to the scope of the lineage); it, like bokinei, is a reciprocal term. Anyone addressed bokinei or pomur by a man is addressed kabigoi, a reciprocal term, by co-generational or ascendant members of his lineage. A man addresses the males of his wife's lineage, provided they are of the first ascendant generation, or below, by the term he addresses his father with, oboi. Persons in these positions are also addressed kabigoi by co-generational or ascendant members of the man's lineage.
Tugen terminology clearly belongs to the Crow-Omaha class; specifically it is, of course, Omaha. I have claimed that Omaha terminology results from an interaction between kin-categorization and the process of contracting alliances. Certain characteristics of the Tugen terminology substantiate this claim. The first is the feature of generational skewing, upward skewing of members of wife-giving groups, and the reciprocal downward skewing of members of wife-taking groups. This is categorically marked by the use of the terms \textit{mamae} and M, and the reciprocals \textit{apolai} and \textit{lakwe}, and by \textit{oboi}. It should be noted however that there is some downward skewing of members of wife-giving groups, e.g., MFZ is classed with M and receives the address M (the woman is still in the ascendant category), but this does not affect the argument, and simply marks the Tugen case as an Omaha variant. Skewing is all the more marked in Tugen by the fact that it either neutralizes or reverses requirements of respect and deference which would otherwise be called for because of age-set relationships. This kin-term usage is symbolically congruent with the deference behavior owed to wife-givers, and the notions that wife-givers are 'bigger than' and 'above' one's own group discussed in Chapter III. Moreover, the categorizing of other taker allies of one's own wife-givers with agnates, and of any wife of a \textit{mamae} with kin of the second ascending generation (the term used is \textit{kogo}) is consistent with this.
The second feature is itself a consequence of this generational skewing. It can be seen in the marking of members of the last generation of any pair of allied lineages to have their marriage choices conditioned by the alliance with the terms kugo and kogo. The generation below this have no terms for each other. The alliance of the past three generations is of no consequence to them, and if members of this generation effect an alliance between themselves, then even the people of ascending generations who did use kin terms for each other (most significantly, kugo and kogo) will have to transform them to kabigoi.

The contrast between the behavioral entailments of the category kugo/kogo and the category mamae/M are interesting in this regard. Address by the terms kugo or kogo entails joking familiarity and informality implying an equalization of social status in marked contrast to the respect, deference, and circumspection entailed by the terms mamae or M applied to members of a wife-giver lineage by members of the taker lineage in the generation above. The kugo/kogo terminology also marks a similar kind of generational boundary, below which marriage choices are not constrained, with respect to members of two lineages, one of which is a giver to a third group, and the other a taker.

Finally, the use of agnatic terms for common wife-takers of a giver lineage, i.e., for a fellow taker lineage C (see Figure 2a), for whom B, the giver lineage, uses the same terms
as it does for your own, supports the claim that kin categorization and marriage rules interact.

These structural features of the Tugen kin classification system make no symbolic sense except if and when they are associated with marriage rules of a kind followed by the Tugen (and other Kalenjin). The Tugen, of course, could have structured their kin terminology in some other way, so that it would not be classifiable as Crow-Omaha, but then they would not convey as much essential information about the social statuses of persons related through alliance as they do, and at the same time have their system be symbolically congruent with the 'socio-logic' of the relationship between givers and takers. Take the Elgeyo system as an example (I have interviewed a number of Elgeyo on this topic). Elgeyo marry according to the same rules as Tugen, but they do something quite 'non-Omaha' with their kin terminology. Instead of having the reciprocals lakwe/apolai for the terms mama/M (in Elgeyo the term mamæ is rendered mama) they reply with the term mama, thus eliminating the characteristic Omaha generational skewing. This simplification entails loss of information since there is no way of discerning what the relative status of two actors calling each other mama is with respect to the alliance relationship which links them from the terminology alone, unlike the Tugen system. There might conceivably be a non-Crow-Omaha kin classification system which conveys as much information with respect to social statuses arising from alliance relationships as the Tugen
system does, but it would have to make more terminological distinctions, and it would not be symbolically congruent with the relationship of givers to takers.

B. Marriage System Parameters and Minimum Numbers

The essential Tugen marriage system is formally described by rules T1 to T4 presented above in this chapter. These rules constrain Tugen society in such a way that the Tugen must have a certain minimum number of alliance units. In order to demonstrate this I must construct a model of Tugen society. The elements of this model comprise a set of alliance units, each composed of a series of generations, and each generation consisting of a pair of siblings of opposite sex, the male to continue the line, and the female to effect an alliance outside.

Suppose there is an additional rule to the effect that any pair of groups which have an ally in common cannot contract a mutual alliance for the duration of the alliance with the third group (i.e., T5). For each generation of any group, two other groups for alliance are necessary, by T3, and by T4, this requires a total of $2 \times 3 = 6$ other groups. But because of T5, each generation of a pair of groups with an ally in common requires two other groups (one each), which means six additional alliance units are required. The overall total minimum requirement is therefore $1 + 6 + 6 = 13$ alliance units. However, Tugen do not have T5 in effect beyond the first
generation of an alliance, which means that they require only two groups in addition, yielding a total minimum number of nine for their system.

For any two groups with a giver ally in common, the prohibition on a mutual alliance (rule T5) is in force for the duration of the alliance with the common ally. However, given this model where each generation has but a single sibling pair, my argument about the necessary minimum number of groups is not affected.

If the Tugen system actually had no more than nine alliance units it would be operating at minimum state, which is not the case. The minimum state is a purely theoretical limit. However, in their labelling of units at some level of social structuring, people might well have as the number of names, the minimum requirement, or a number near it, and they might further talk about, or symbolize their system as if it was operating at or near the minimum state. Tugen do this in two ways: in the number of names of clans (see the preceding chapter), and in their custom of addressing women. It is considered insulting to address an adult by his or her personal name, which is given shortly after birth. Men, unless related to the speaker, are addressed by the personal names of their fathers, preceded by the word arap, meaning 'son of', or by nicknames. Women are characteristically called by nicknames prefixed by tab- or by the names of their clans. Addressing women by the names of their clans would afford a means of keeping track of alliances if the system were at minimum state.
I return to this topic of minimum state labelling and symbolization in the concluding chapter. For the moment I wish to draw attention to the rule T4 which requires that new marriages be invested in establishing new alliances with hitherto non-allied groups for a certain period of time. This period of time, specific to a given system, is a marriage parametric value; in the Tugen case it is three, and is measured in generations. For Crow-Omaha systems in general its value should be stated as n. To encompass marriage systems generally, n has to be defined as being measured in degrees of distance along lines of relationship starting from a married pair who have established an alliance. I discuss this further in the next chapter.

More specifically, I present some general conclusions about Crow-Omaha systems, but with the generalization of the Tugen marriage system parametric value, I am in a position to demonstrate that the Tugen minimum number represents a special case of a theorem about Crow-Omaha systems in general.

There is actually a second marriage system parameter implicit in the model of Tugen alliance. Rule T4 has been defined as being in force concurrently with the duration of an alliance, and this marks a system as being Crow-Omaha proper. For the general case the model should state that T4 is in force for the duration \(n'\), and hence for Crow-Omaha proper, \(n' = n\).

But suppose \(n' \neq n\). The only way in which \(n'\) (the 'prohibition parameter') may differ from \(n\) (the 'proscription parameter') is for it to be less than \(n\), i.e., for \(n'\) to be arbitrarily small. This condition generates the asymmetric alliance case.
CHAPTER V
CONCLUSIONS: A THEORY OF CROW-OMAHA MARRIAGE SYSTEMS

A. Crow-Omaha Marriage and Asymmetrical Alliance

A generalized model of Crow-Omaha alliance can be constructed from the Tugen model by substituting $n$ in place of 3. In the case of a Crow system, the givers and takers are husband-givers and takers, of course. Then, by T3 and T4, any alliance unit requires $2n$ other groups. By T5, $2n$ groups in addition to these latter $2n$ are also required. The total minimum for the generalized case is therefore $2n + 2n + 1 = 4n + 1$. If rule T5 is deleted, the minimum comes to only $2n + 1$. Theoretically a set of systems can be imagined where the duration over which T5 is in effect ranges from zero (which yields the minimum of $2n + 1$) to $n$, which generates a minimum of $4n + 1$. The general case corresponding to the Tugen example is $2n + 3$. These algebraic expressions generate a series of minimum numbers of different values of $n$. These numbers are tabulated in Figure 7.

<table>
<thead>
<tr>
<th>$n$</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>$2n + 1$</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>$4n - 1$</td>
<td>3</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td>$4n + 1$</td>
<td>5</td>
<td>9</td>
<td>13</td>
</tr>
</tbody>
</table>

Note: The expressions which give rise to the numbers are at the left-hand end of the respective rows they generate. The expression $4n - 1$ results when rule T5 is in effect for $n-1$ generations.

Figure 7. Table of minimum numbers for increasing values of the marriage system parameter $n$. 
The comments of Claude Lévi-Strauss and the observations of R. T. Zuidema (1965) acquire new significance in the light of this Crow-Omaha theorem. Lévi-Strauss in the *Future of Kinship Studies* (1965:19) noted with passing curiosity the following problem concerning Crow-Omaha:

If such societies were limited to the clans or phratries of the two grandfathers and two grandmothers, their marriage regulation would be more or less of the Kariera or Aranda type, which would mean that in order to find a suitable mate each individual would have to drop two or three descent lines and pick up a fourth. But all Crow-Omaha systems have more than four descent lines: seven among the Cherokee, ten among the Omaha, thirteen among the Crow [my emphasis].

The model clearly accounts for the appearance of these numbers in ethnographic reportage. These numbers have been available to members of a great number of historically unrelated societies, past and present, for use in a variety of classificatory and cultural-expressive contexts, e.g., numbers of major groups into which a society is divided, local settlement pattern arrangements of members of such component groups, poetic forms, games, and ritual and cosmological symbolism. The Tugen and other Kalenjin themselves exemplify this fact, although they do not provide as good an example as do some American Indian groups of extensive symbolic use of the numbers (see Zuidema, 1965).

These numbers may be used on the structural level of the phratry rather than that of the clan. Moreover, once manifest in a variety of symbolic-expressive contexts, they can quite easily become detached from the structural base which has
generated them by virtue of a change in the underlying constraints, and yet continue to be used for symbolic-expressive purposes.

In stratified societies different minimum numbers may be associated with different strata. On the grounds that the numbers associated with the different strata would come to partake of the differential regard in which the social classes are held, the conjecture suggests itself that the conception of these particular numbers as 'unlucky' or 'lucky' had its origin in this social structural development. The European, or perhaps Indo-European, case where three has sacred connotations and associations, seven is felt to be lucky, and thirteen threatens misfortune is interesting in this light. Notwithstanding the predilection for cognatic structures exhibited by the Germanic and Western Celtic people of Europe, discussion of tripartite stratification, Omaha classification, and European or Indo-European tribal groups in the same breath is not by any means highly speculative (see Paul Friedrich, 1966, and R. T. Zuidema, 1965). I take up the topic of minimum numbers and social stratification again in Section E.

The minimum number three, which obtains when T5 does not constrain the system, cannot occur in the case of a Crow-Omaha system proper; three is the minimum for asymmetrical alliance systems, such as are found frequently in South-east Asia and Indonesia. But the model, which was constructed by generalizing from the Tugen case, certainly generates this minimum number,
a fact which demands the conclusion that Crow-Omaha systems proper and asymmetrical alliance have a common meta-structure. By examining once again the rules of the model, it should become clear that in order to capture the asymmetrical alliance case rule T4 has to be modified. This suggests that both Crow-Omaha systems proper and asymmetrical alliance can be formally defined succinctly in terms of the parameter n. First in place of n in T4 and T5 put n', where n' has values 0, 1, ..., n, and which one depends on the particular system. The parameter n' is the proscription parameter and cannot exceed n. For Crow-Omaha n' = n in the case of allies, and n', the duration over which T5 constrains the system, can range from 0 to n. In the asymmetrical alliance case, n is in the neighborhood of 2 or 3 and n' is arbitrarily small. An interesting implication of this is that Crow-Omaha systems are more constrained than asymmetrical systems. Another interesting implication is that asymmetrical alliance systems do not disallow investing new marriages in the establishing of new alliances; it is simply that they do not require that marriages be so used and people expect that at least some will be used to further old ones.

F. K. Lehman in his 1969 paper pointed out, contrary to Lévi-Strauss's notions, that asymmetrical alliance systems do in fact invest new marriages to establish new alliances. R. McKinley (1971) has the same misunderstanding about asymmetrical alliance as Lévi-Strauss has. On page 228 of his paper McKinley claims:
In the case of Crow-Omaha, I find that the particular contradiction which is ideologically 'resolved' is one posed by systems of dispersed affinal alliance in societies where it is nevertheless desirable for exogamous lineages to maintain close contact and solidarity with their former allies. In such a situation all new marriages are invested in new inter-group alliances, yet it remains important to hold onto old ties. This problem of maintaining old alliances without actually renewing them through remarriage in successive generations is partly overcome by adopting a kinship terminology which very conveniently ignores the passing of generations in certain important inter-lineage relationships—and this of course is the outstanding characteristic of Crow-Omaha systems. Since such a terminology 'freezes' the time dimension of the kinship system and holds onto previous alliances, there is less reason to feel that these older ties have been replaced by the new ones (228-229).

To claim that conformity to Crow-Omaha constraints entails a contradiction is absurd, especially in face of the fact that his contrast case, asymmetrical alliance, allows marriage alliances to occur which appear as if they conform to strict Crow-Omaha constraints. McKinley states that Crow-Omaha terminology occurs because it "partly overcomes" this contradiction. It is ironic in view of this absurd claim that he considers two cases of widow inheritance which can only occur under asymmetrical conditions to be 'Crow-Omaha' (235, and see also 234-237). But a discussion of kin terminology belongs properly to the next section.

B. Crow-Omaha Terminology: Simplicity and Information-carrying Capacity

Before I proceed with the principal issues of this section, I must say a word about Crow as opposed to Omaha terminology.
Crow and Omaha terminologies are often said to be 'mirror images' of each other (see Lounsbury, 1969:214). It seems theoretically possible to create for the set of Omaha rules of any actual ethnographic case with the lineation features 'agnatic' and 'matri-agnatic', a corresponding set of Crow rules by replacing these features with 'uterine' and 'patri-uterine', and conversely. However, this claim has never been investigated to determine whether or not any such corresponding set of rules generates actual ethnographic case data. I do not intend to investigate the claim in this dissertation, but whatever the outcome of such an investigation should be, both Omaha and Crow terminologies are associated with the parametric relation, \( n = n' \), and 'matrilineal' versions of 'asymmetrical terminology' (e.g., the Trobriand system) with the conditions, \( n \) is in the neighborhood of three or four and \( n' \) is arbitrarily small. Particular modes of lineation are irrelevant to marriage-parametric relations. For example, the Anglo-American case, which is cognatic, is characterized by a succession of nuclear families, and the prohibition parameter \( n \) is a degree of consanguineal relationship to, or a remove from, a member of a married pair (for a discussion of measures of consanguineal degree or remove see John Atkin, 1974); \( n' \) may of course be zero, but generally speaking it approximates \( n \).

In Chapter IV I argued that Tugen kin terminology is symbolically congruent with a system described by the parametric relation \( n = n' \), where 'socio-logic' has it that givers are
status superior to takers. This Omaha terminology of the Tugen in fact conveys more essential information about the relative social status of persons who are related as a consequence of an alliance between their groups than if the terminology were structured in some 'non-Crow-Omaha' fashion. That is to say, simplification of the terminology in the sense of having fewer terms, as for example in the Elgeyo case discussed in Section B of Chapter IV, results in loss of information about relative social statuses arising as a consequence of alliance relations. And on the other hand, greater complication and differentiation in the terminology adds at best no further relevant information about such social status relations than does a Crow-Omaha classification.

This leads to the conclusion that Crow-Omaha classifications, internal variations of this class of systems notwithstanding, are the simplest kin classifications which encode the maximum amount of information about the relative social statuses of interacting relatives vis a vis the alliance relationship linking their lineages. The information conveyed by the classification of genealogically non-agnatic relatives as agnates (see Section B of Chapter IV above) is that persons classifying each other in this 'pseudo-agnate' category (in the Crow case, the analogous category is 'pseudo-uterine') are members of different alliance groups which have a giver ally in common. Additional information is necessary to decide the question of whether the relatives are true genealogical agnates
or not, since the kin terminology alone does not enable one to sort this out. The simple knowledge that any pair of relevant kinsmen are of different clans, or of the same clan decides the question. In the Tugen case the kinsmen in question might be of the same clan but of different lineages. For some Crow-Omaha systems, it seems that clans are the alliance units, at least to the extent that full marriage prohibitions, rather than merely exogamic restrictions, are entailed for members of the clan whenever any member lineage effects an alliance. It is perhaps in cases where the clan is the alliance unit that minimum structural numbers are given extensive symbolic use. Perhaps, too, it is in these cases that phratry organization occurs. Aboriginal North American societies are noted both for using minimum numbers in symbolic contexts and for giving attention to phratry organization.

At least some of the variations internal to Crow-Omaha classification as a set of systems seem related to the size of \( n \) and \( n' \). For example, in the Tugen case, members of the second generation of an alliance (i.e., the first descending generation from an alliance) may marry someone of the natal lineage of MBW. Classification of MBW with M, as occurs in some Omaha systems, suggests that there would be no such possibility, and this implies that \( n' = 2 \) with respect to the T5 constraint. Some Omaha systems class MB with PP (grandparent), which suggests the parametric value \( n = 2 \). The parametric condition, \( n' \) is arbitrarily small, suggests that distinct
affinal assignments (exemplified in the Tugen case by terms such as kabigoi, michei, and bokinei) are not necessary since the terms applied to members of a spouse-giver group, which includes genealogical consanguines, may be used. The lack of distinct affinal assignments in what otherwise looks like a Crow-Omaha classification is characteristic of terminologies associated with asymmetrical alliance, an issue relevant to the next section.

C. Buchler, Selby and Lounsbury on Crow-Omaha: A Critique

There is some controversy over terminologies typically associated with asymmetrical alliance systems. Lounsbury (1969:243) considers them to belong to the class 'Crow-Omaha':

Still another is what happens to Omaha- or Crow-type systems when a consanguineal marriage prescription (or consanguineal-affinal equation) is imposed. In cases such as this another equivalence rule must be added to the set. ...This rule has the effect of transforming consanguineal types into affinal types... Among these results is usually the transformation of MBD into another type so that it is not available for reduction to M by the Omaha rule that is most often operative in these systems. Thus one is usually spared the embarrassment of marrying a "mother" under the matrilateral cross-cousin prescription.

More clearly, on page 252, Lounsbury says, "Some (i.e., Crow-Omaha systems), with rules of cross-cousin marriage, merge in-laws with cross-consanguineals." On the other hand, Ira Buchler and Henry Selby (1968:249) claim that:
...Omaha terminologies, on the one hand, and the terminology of asymmetric alliance systems, on the other hand, are, in fact, different things, except for superficial terminological (i.e., formal) resemblances... Classified on a functional level, in terms of type of exchange of women which the terminological codes insure within the group, they have nothing in common, except that their terminology is asymmetrical.... The basic formal distinction between asymmetric and Omaha (or Crow) systems is clear: there are no distinct affinal assignments in most asymmetric systems. Conversely, virtually all Omaha (and Crow) systems have terminologically distinct affinal assignments. In sum a failure to differentiate the Crow-Omaha type from the Miwok (asymmetric) type may lead to rather serious interpretive errors, for "the important" point with the Crow-Omaha type is not that two kinds of cross-cousins are classified in different generation levels, but rather that they are classified with consanguineous kin instead of with affinal kin as it occurs, for instance, in the Miwok system (Lévi-Strauss, 1951, p. 162).

The controversy is spurious and would not have arisen if some anthropologists (most notably Buchler and Selby) had not confused kin-terminology and alliance rules.

On the other hand, Rodney Needham has failed to see that there is an interaction between the process of categorization of kin and alliance rules, which failure has led him to the conclusion that:

...there exists no useful generalization about this factitious class of Omaha terminologies. It is true of course that the minimal equation is associated with patriliny (in a conventional acceptation), but no one could well claim that this was a theoretical result arrived at by means of the type. ...And it is surely not surprising that the terminological identification of a man and his son is accompanied by a transmission of status through males. If, then, an ethnographer reports an Omaha terminology, he tells us nothing of any descriptive value; and in representing the terminology to himself under this label he tells himself nothing of analytical value either. No systematic comprehension is thereby provided, nor
does the assignment to the Omaha type offer any clue to the analysis of the society which employs the terminology. There really is no such thing as an Omaha terminology, except that of the Omaha themselves, and it leads only to confusion and wrong conclusions to suppose that there is (Needham, 1971:14-15).

Interestingly, Needham, in numerous papers, including the one from which the quotation above was taken (see also Needham, 1971:20), has argued persuasively that there is an interaction between asymmetric alliance and kin terminology. I demonstrated in Section A above that Crow-Omaha alliance and asymmetrical alliance systems have the same meta-structure in common. In view of this, the conclusion that the interaction between alliance rules and the process of social categorization should result in a set of similar kin terminologies, namely the ones classed as 'Crow-Omaha', is inevitable. Furthermore, these two kinds of alliance systems are typically associated with terminologies of Crow-Omaha type. Assignment to the Omaha type does offer analytical value, and my demonstration that Crow-Omaha alliance proper and asymmetrical alliance have a common meta-structure vindicates Lounsbury, who has neither denied the possibility of interaction, (although he has not elucidated this at all), nor confused terminologies with alliance rules. Finally, my model of Crow-Omaha/asymmetrical alliance systems demonstrates that Buchler's and Selby's claim to have brought "the universe of discourse (i.e., of Crow-Omaha systems)... under control" (1968:277, my aside) is mistaken.
In his preface to the second edition of his *Les Structures Élémentaires de la Parenté* Lévi-Strauss indicated a disagreement with Rodney Needham over the notions 'prescriptive marriage' and 'preferential marriage' (p. xxx of the 1969 English translation). On pages xxx-xxxi he points out:

It has long been known that societies which advocate marriage between certain types of kin adhere to the norm only in a small number of cases, as demonstrated by Kunstader and his team through the use of computer simulations. Fertility and reproduction rates, the demographic balance of the sexes and the age pyramid never show the perfect harmony necessary for every individual, when the time comes for him to marry, to be assured of finding a suitable spouse in the prescribed degree, even if the kinship nomenclature is broad enough to confuse degrees of the same type but unequally distant, often so much so that the notion of a common descent becomes purely theoretical: hence the idea of calling such systems 'preferential', a name which, as we have just seen, expresses the reality. However, there are some systems which confuse several degrees in prescribed marriage categories, and in which it is not inconceivable to find even non-kin. This is the case... in South-east Asia, in which marriage takes place between groups which are called and which call themselves 'takers' and 'givers' of women, the rule being that any group may receive women only from its 'givers', and may itself give women only to its 'takers'. As the number of these groups always seems quite large, there is a certain freedom of choice for each group, which is in no way obliged, from generation to generation, and even for marriages contracted by several men in the same generation, to have recourse always to the same 'giver'. In this way, the women married by two men belonging to consecutive generations (i.e., father and son) may, if they come from different groups of 'givers' have no kinship link between them. The rule is therefore very flexible, and societies which adopt it experience no real difficulty in observing it. Exceptional cases apart, they do what they say they must, hence the reason for calling their marriage system 'prescriptive'.

---

D. Prescription or Preference: Claude Lévi-Strauss and Rodney Needham
Following Needham, several writers today assert that my book is only concerned with prescriptive systems, or, to be more exact..., that such had been my intention had I not confused the two forms [i.e., prescriptive and preferential: my emphasis].

And on page xxxii he says:

... If we follow the example of their creators and define so-called prescriptive systems as we have just done, the only conclusion to be reached is that, on this account, they would not prescribe very much. Those who practice them know fully that the spirit of such systems cannot be reduced to the tautological proposition that each group obtains its women from 'givers' and gives its daughters to 'takers'. They are also aware that marriage with the matrilateral cross-cousin... provides the simplest illustration of the rule... On the other hand, marriage with the patrilateral cross-cousin would violate it irrevocably.

Finally, on page xxxiii he says:

Rather let us own that notions of prescriptive and preferential marriage are relative: a preferential system is prescriptive at the model level; a prescriptive system must be preferential when envisaged at the level of reality, unless it is able to relax its rule to such an extent that, if one persists in preserving its so-called prescriptiveness (instead of paying heed, rightly, to its preferential aspect, which is always apparent), it will finally mean nothing.

In any case, as mentioned above in Section A, asymmetrical systems do invest in new alliances. The alliance model presented in this dissertation accommodates this statistical reality. Nevertheless Lévi-Strauss's model of three groups describes the minimum state of an asymmetrical system and is necessarily a prescriptive state. In this light Lévi-Strauss's claim that asymmetrical alliance systems are prescriptive at the level of the model, but preferential (i.e., statistical) at
the level of reality makes perfect sense. The debate about prescription and preference is therefore settled in favor of Lévi Strauss.35

E. Marriage Parameters and Social Stratification

In Section A I mentioned briefly that different minimum numbers might be associated with different social strata within the same society, thereby implying that different alliance systems derivable from the model of alliance can co-exist within a single but stratified society. The alliance model suggests the hypothesis that different systems derivable from the model have different potentials for aiding and abetting processes of social stratification.

Given the possibility of arranging alliances so that a single group can emerge as the one in its region which is the common member of the largest number of minimum connubial cycles, and the cultural fact of status asymmetry of givers and takers, such a group would be the maximal local giver. A connubial cycle is a closed series of groups linked as givers to takers, and the minimum cycle consists of three or five groups depending on whether \( n' = 0 \) or \( n' > 0 \) for \( T5 \), respectively. A maximal local giver would command the highest respect and prestige from most of the groups of its region. Even givers to this group would have to reckon with this as a political fact of consequence. A locally ascendant maximal
giver lineage could arrange to take appropriate spouses from further afield than the region over which effective command can be achieved and thereby reduce and perhaps eliminate the number of local givers to itself. These extra-regional alliances would most likely be with other emergent, prestigious groups.

To effectively manipulate and maintain one's group in the most advantageous position the parametric condition, \( n' \) is arbitrarily small (with respect to \( T4 \)), is most desirable. The condition \( n' = n \) (and particularly for \( n = 3 \) or \( 4 \)) entails a time lag over which it is difficult to reinforce or maintain any effective regional superiority in alliance arrangements and situations. This would be especially so if people in the boundary category, where, for the next generation the alliance will have lapsed, stand to each other as essential equals (e.g., as in the Tugen case for the kugo/kogo category). This strongly suggests that asymmetrical alliance systems are structurally more amenable to manipulation in aiding and abetting social stratificational advantages than Crow-Omaha systems proper. In this light Lévi-Strauss's claim that:

...Crow-Omaha systems, though formally akin to elementary structures, allow history to play a part in social life. Instead of acting as a regulating device which is constantly tending to set the society back on its old tracks, they leave it a certain measure of freedom which may lead to change (Claude Lévi-Strauss, 1965:20).

has to be turned on its head. This differential property of Crow-Omaha and asymmetrical alliance (the latter being regarded
by Lévi-Strauss as the "perfect expression" of elementary structures, 1965:19) with regard to amenability to manipulation vis-à-vis social stratification (this is presumably what Lévi-Strauss means by "allows history to play a part") leads to the opposite conclusion about change. In the absence of a formal model of alliance, and the number theorem, the fact that these two types of systems have this differential property could not have been elucidated. In any case, the dichotomy between 'elementary' and 'complex' structures is spurious (see note 35).

F. Omaha System Origins: Some Ecological Speculations

I have argued that Omaha systems of terminology are the simplest classifications which encode the greatest amount of information about the relative status of interacting relatives vis-à-vis the alliance relation. Previous explanations of Crow-Omaha classification put forward mode of post-nuptial residence and/or increase in lineage solidarity as being the causal factors. Modes of residence are irrelevant to the alliance parameters and independent of the mode of lineation manifest in culture-specific cases. In short, mode of residence is irrelevant as a factor accounting for Crow-Omaha classification. 'Lineage solidarity' is meaningless; it cannot be measured. Moreover, to contend that there exist, or could exist, kinds of kin corporations distinguished by greater or
lesser degrees of lineation is nonsensical. Lineation as a means of structuring is present, or it is not, in any particular case.

In conjunction with the 'increasing solidarity' thesis it has been claimed that at the postulated stage of weak lineage solidarity the system of kin classification is of the Iroquois-Dakota variety (Eggan, 1966:105). I do not know whether anyone has ever recorded an ethnographic case where a society had Iroquois-Dakota classification at one point in its history, and then later displayed a Crow-Omaha structure. However, the parametric values necessary to have the one are not those necessary to the other. The parametric values required for Iroquois-Dakota are, \( n' = 0 \), and rule T3 is not in force. A social structural state of affairs can be imagined where on one level of structure (such as clans) the parametric values required for Iroquois-Dakota obtain, while the parametric values for Crow-Omaha classification characterize another level of structure embedded in the other (such as lineages). If the former level and its parameters are used to structure the kin categories, then an Iroquois-Dakota terminology would probably result. If subsequently this level of structure should disappear for whatever reason, then the parameters for structuring in a Crow-Omaha fashion are available, and are the obvious basis for structuring kin categories.

This hypothetical case specifies conditions under which it would appear that Crow-Omaha classification had emerged from
an Iroquois-Dakota state of affairs. Under such circumstances, kinship data from the same historically continuous society at two different times, or from cognate societies with a common origin, might lead an observer to conclude that Crow-Omaha had indeed emerged from an Iroquois-Dakota base, and that this reveals the necessary developmental pathway to Crow-Omaha. This would be an erroneous conclusion for the simple reason that the Crow-Omaha alliance pattern was there all along but kin-category structuring was being shaped with reference to a higher level group structure and on this level exchanges appear symmetrical.

To clarify this further, suppose that lineage A' of clan A allies with lineage B' of clan B in Crow-Omaha pattern, and then lineage A' allies in the opposite way with lineage B. Now if the level of the clan is used to structure kin categorization (in contrast to the Tugen case where the level of the lineage is the relevant level of structure) Crow-Omaha terminology would be quite incongruent because symmetrical exchange with respect to this level may occur, but Iroquois-Dakota terminology would not be inappropriate. Suppose that the clans lose significant functions, say, in control of property or resources, for whatever reasons, so that clans become socially insignificant. An abandonment of this level of structure, now socially insignificant, as the level structuring the kin categorization process would seem likely. The level of structure which is available to take over this
structuring function is that of the lineage, and for this level Crow-Omaha terminology is appropriate and Iroquois-Dakota terminology, not. It is erroneous to understand this hypothetical change in causal terms, as Crow-Omaha coming out of Iroquois-Dakota in a necessary, causal way. But because of a failure to realize that quite different marriage parametric values are involved in each case, it would well appear on examination of data from two or more different time periods that causal necessity is or was somehow involved in the change from Iroquois-Dakota terminology to Crow-Omaha. The mistaken idea that Crow-Omaha of necessity comes from Iroquois-Dakota seems plausible under these circumstances.

But why should a society arrange marriages in a Crow-Omaha fashion? If it is asked what is achieved adaptively by conforming to this alliance pattern, the answer suggests itself: it is the tactic which achieves optimum utilization of alliance potential to acquire maximum adaptive potential in aid from other groups, under certain environmental and techno-economic conditions.

In an environment where economic fortunes vary in space and time, and in large measure unpredictably, aid from other groups is more than a mere adaptive advantage, it is a necessity. The significant factors in the Tugen environment which have traditionally and consistently affected economic fortunes are the uncertainty of onset, duration, and intensity of rains, including both drought and deluge (a rarer phenomenon, but one
that does destroy crops), stock and human epidemic diseases, locust plagues, and predatory raiding for stock. If these factors do not make themselves obvious to direct observation sooner or later, they can easily be elicited from informants. It is a simple fact that marriage alliances enable local groups to secure potential and actual aid from other groups. If it were otherwise in large areas of the East African environment, then life would be rendered more "nasty, brutish, and short" than it need be. The most adaptive strategy under these conditions is one where local groups distribute their alliances to secure rights to advantages and resources commanded directly by other local groups. One link per group is all that is necessary to establish this. More than one, and the advantage to be gained by using that alliance potential to link with some other group in another location, with additional resources that might prove advantageous, is diminished. However, if re-alliance with another group is customarily foregone for more than three or four generations, then such advantages would soon be relinquished in favor of groups which could establish current alliances.

The realization of the alliance pattern as rules, and absolute conformity to them, would have emerged as the terminology came into verbal actuality. This had to be so because the terminology feeds back on behavior so that behavior and cognition become mutually reinforcing, with the kin classification clearly marking the exogamous boundary as well as the
point of lineage fission. The parametric relations become
the necessary constraints in maintaining this system of cate-
gories, rights and obligations which provides the major
cognitive benchmarks whereby social expectations take shape,
and behavior is guided and judged. Under these circumstances
people would unavoidably conceive of the facts as being the
result of the operations of the particular rules. How long
it might have taken on the numerous occasions in prehistory
when a Crow-Omaha system was in the making is impossible to
say or guess. However, given a population living under condi-
tions similar to the Proto-Kalenjin (or perhaps even earlier
than this--Proto Southern Nilotic), expanding and approaching
the population size where it is possible to abide by Crow-Omaha
constraints, there is no reason to doubt that a Crow-Omaha
terminology could precipitate out into lexical reality in
quite a short time.

An implication of the arguments about social stratifica-
tion and adaptive-ecological factors is that my model of
alliance enables interesting comparative statements to be made
about a large class of systems. Furthermore, the model affords
a theory of Crow-Omaha origins. In other words, the model
accommodates change, and models of social structure are often
criticized for failing in this regard.
G. Concluding Remarks

It is appropriate to conclude this dissertation by letting it decide, so to speak, on a recent claim made by an Africanist about Crow-Omaha systems and alliance theory. In a paper wittily titled 'Levi-Strauss Comes to Africa Speaking English,' Adam Kuper claimed that "descent is honed to the analysis of Crow-Omaha systems (which are common in Africa, as he notes), while alliance theory is irrelevant outside the field of simple kinship systems" (Kuper, 1970:782). This seems to be another case of confusing kin terminologies with alliance rules. Nevertheless, if Kuper's claim had any validity, then I would not have been able to construct a model of alliance with such descriptive and explanatory power that it accommodates both Crow-Omaha and asymmetrical alliance systems. Crow-Omaha systems have now been accounted for within the wider framework of alliance theory.
Notes

1 In reports Tugen have often been labelled 'Il Kamasia', the Maasai name for them, and one which they dislike. It may be related to the Kalenjin word kamas, meaning 'the middle slopes of a hill range', a good, succinct description of most of the Tugen habitat.

2 Benjamin Arap Kipkorir (n.d.:4) suggests that Arap Chemallan coined the term, and used it to announce the start of his World War Two broadcasts in Kalenjin.

3 When Kalenjin wish to attract attention they say kolei, meaning 'I say'; A. H. Jacobs says that when Maasai wish to do this they say maa (personal communication). It may be that 'Kalenjin' was formed by analogy with Maasai usage.

4 A Tugen story tells of a man who lived on Mount Elgon, and who had several sons, most of whom migrated to one or another of the Kalenjin sub-tribal areas. Their descendants now make up the various sub-tribes. This Elgon man is also said to have had one daughter who, appropriately, married a Maasai, giving rise to the mother's brother - sister's son relationship which the Kalenjin claim exists between them and Maasai.

5 The British introduced a number of crops into Kenya so that today Tugen, particularly highland Tugen, in addition to maize (pandek) grow potatoes, tomatoes, chili peppers, cabbages, lemons, bananas, avocados, papaya, and Napier grass (a fodder crop). Many families have chickens, and some are able to sell eggs regularly at local markets. Some families also have grade cattle, and sell milk through the marketing board in Kabarnet Center. Tugen are inordinately fond of honey, and the delicious potent brew they make from it (kipketinik), and many men place hives in trees to attract bees. A few commercial establishments sell kipketin, when honey is available, in addition to the usual and popular maize beer (komen). Pyrethrum daisies as a poison base for insecticides and coffee (arabica variety) are commercially grown now in the Tugen Hills. Coffee is restricted for quality control to a small number of farmers.

6 The Endo, who border on Pokot, are unlike other Kalenjin in that they maintain a system of irrigation. Endo elders say that they did not originate the system, but took it over from non-Kalenjin people who moved away long ago. What the linguistic and cultural affinities of these people were, Endo elders do not know.
The Republic of Kenya gives veterinary aid and encourages the building of stock dips, but cattlemen can still lose stock to disease.

Oret also means 'road' or 'path', words which connote the notion of a line.

A case in point is the venture against Elgeyo in the early nineteenth century when the warrior set Maina was virtually destroyed.

In the highlands at least, even the most traditional Tugen are talking about stopping the clitoridectomy ceremonies. Highland Elgeyo, and Nandi and Kipsigis have not performed ritual clitoridectomy for some time now. When these tribes did initiate their females, the operation was not done in groups as for the males. The Tugen, however, initiate females in large groups, like males.

A man can enter into an argument between bakule and bakule's wife in an attempt to settle the dispute where most kinsmen might fear to intervene. To speak harshly to a bakule who does this is virtually unthinkable; a man would have to atone for his act if he did. There is a similar role obligation in marital disputes with the bamwai, the man of the senior adjacent age-set who anoints the bridegroom with fat-tailed sheep tallow (mwai) on the day of his wedding.

The word tum (also tumdo) means in general 'ceremony', but frequently initiation rites alone are referred to as tum.

The Kipsigis and Nandi, like the Tugen, have dropped an age-set name, each a different one. The Marakwete and Ndo have replaced Kipkoimet with Kaberur ('the house of the blessing'); this was done in the 1940's when a severe epidemic of smallpox passed through their area. Kipkoimet was being initiated during this time. The dropping of age-set names, with or without replacement, has behind it the cosmological notion that events in their major features repeat themselves (see note 16). This has implications for historical methodology of which historians seem unaware. For example, in a paper on Kipsigis history, S. C. Lang'at (1969) has constructed a chronology using the Kipsigis age-set name cycle of seven, as is a common practice of historians writing on the pre-colonial history of Western Kenya. But the Kalenjin base set of names is eight in number; consequently, any chronology based on seven names will have a systematic error of fifteen to twenty years for each cycle prior to the cycle in which the missing name was dropped. There is an additional pitfall for the historian arising from the traditional Kalenjin conception of time and events, which their cyclical labelling convention induces (again, see note 16).
The Kalenjin pattern of naming has led scholars to call the Kalenjin age-set system 'cycling' or 'cyclical'. For example, Huntingford (1960:215) says of Nandi age-sets that, "The sets thus work in a recurring cycle, and the names appear again and again." Christopher Ehret (1969:164) has used the notion of 'cyclical age-sets' in some dubious historical reconstruction when he suggests that, "...the early Highland Nilotic people (Ehret's term for Kalenjin) seem to have come under exceptionally strong Cushitic influences: they borrowed the idea of a cyclical age-set system." Cyclical systems are contrasted with linear systems, exemplified by the Maasai.

However, the notion 'cyclical age-sets' has been ill-conceived. Age-sets proceed through initiation-formation and promotion, and then go out of existence by virtue of the fact that its members die. Formation and promotion rituals, it is true, recur, but this does not distinguish 'cyclical' systems from 'linear' ones. Age-sets as social structures cannot meaningfully be termed 'cyclical' as opposed to 'linear'.

The pattern of naming is another matter. The Maasai, for instance, give a different name to each newly formed age-set, the fact that they have twice honored age-sets by conferring on them names of illustrious age-sets of the past notwithstanding (A. H. Jacobs, personal communication). The Kalenjin, on the other hand, have a sequence of eight names. These are applied over and over again in a fixed sequence. Clearly, the terms 'linear' and 'cyclical' can appropriately be applied to these two modes of naming, respectively, but only to the modes of naming. This is not a mere semantic quibble. The notion that 'cyclical' age-set systems per se exist has led Ehret into questionable historical speculation about borrowing of kinds of age-set systems between Cushites and Nilotes, although I do not wish to quarrel with the broader picture which he reconstructs.

The Maasai give each new age-set a new name, in fact, two new names, an official one, and a derogatory one applied by the members of the senior adjacent age-set. When a Maasai age-set enters into elderhood, it receives another name, the one which it is called and remembered by thereafter. With two exceptions these names have all been different. The two exceptions occurred because two age-sets were honored by receiving the names of two illustrious age-sets of the past. The intervals between the pairs of two names are unequal, and consequently this custom in no way represents cyclicity. The Maasai have no notion of reincarnation, nor do they have a cyclical concept of time and events (A. H. Jacobs, personal communication; see also his 1968 article, and the note below).
Kerio Kalenjin, and it seems other groups of the Kalenjin cluster, also have a cyclical view of history. They claim that events which occurred in the past will recur in the future when the age-set name which was in the senior warrior grade at the time of the event of the past is again in the same slot. The recurrence will not necessarily be the same in detail, just similar in overall character and impact. The fact that Kalenjin people drop age-set names in order to avert tragic or harmful events is evidence of this notion. Marakwete and Ndo have gone beyond this to attempt, not merely to avert an event, but to induce a happy one, by naming the age-set Kipkoimet as Kaberur (see note 13).

There is an interesting cognitive consequence of cyclical naming of age-sets. This mode of naming ensures that oral traditions about the relatively distant past will be fuzzy and confused. Moreover, another consequence is that oral traditions about the past which is neither recent nor relatively remote will most likely have stories of events which actually took place, if they occurred at all, in the more remote past. Fallible human memory has trouble remembering if event X occurred, in the third cycle past, or the fourth, or perhaps the fifth. Given this, stories about events of the second or third cycle past have a high probability of containing descriptions of events of the third or fourth. The convention of cyclical naming thus induces a kind of 'Doppler Effect' of oral tradition, where the recent past gets packed with more distant events, while the remote past is left relatively empty.

The contrast with Maasai is interesting (see note 15), for apart from the absence of cyclical cosmological notions, there seems to be a cultural-ecological basis to their having a linear naming convention. The mode of adaptation of the Maasai is pure pastoralism. They exploit the grasslands of the rolling plains of the Rift Valley, and traditionally had to command great stretches of territory. This meant that they ran a high risk of frequent military encounters. This entails a high probability of disasters of a frequency which would demand that new names be given to new age-sets. Otherwise, with a cyclical cosmology they would be faced with a cognitively intolerable state of affairs.

The Tugen, and probably other Kalenjin, are not all 'pure' Kalenjin originating from Mount Elgon. Tugen say that they also absorbed members of original hunting-gathering people (called Okiek by Kalenjin, and Il Torobo by the Maasai). A number of clans in Chapchap Location, and a few in adjacent Kabarnet Location claim Maasai origin from the Laikipiak Plateau. They joined Tugen sometime in the last century. One clan near Chebartigon Forest in Kabarnet Location is of recent Il Tiamus Maasai (Njemps) origin. There may also be some clans of Il Sirikwa Maasai origin. One clan of blacksmiths (Tuiyoi) in the Kapchomuswo area claims to have come from the Uasin Gishu Plateau.
18 The sun and lightning are of the sky and are associated with God. God is called Tororot, 'the one on high', and even more often Asis, the indefinite form of the word for the sun, asista. Kalenjin are traditionally believers in a single, creator sky God. Elders are the mediators between their local communities and God through prayer and the sacrifice of animals.

19 There is no plural for kapchi; the plural of chi is bik (people) but there is no word 'kabik'. When I asked for the plural I received the answer, oret ('clan').

20 The youngest son inherits enough land and stock to support his widowed mother. The 'sons in the middle' may be given nothing at all, but usually they receive a portion of the estate. Tugen say that if a man dies without making clear his wishes on the division of his estate, the eldest son, and if the wife is surviving, the youngest son, decide on the division. It is said that it is not a rare occurrence for the 'brothers in the middle' to be cut off completely. Clan elders attempt to persuade the eldest son to do fairly by his brothers, but they have no sanctions to apply save moral suasion. Tugen add that this situation often leads to attempts at fratricide.

21 Land in a few areas has been surveyed and individuals given title deeds. Elders have no authority to redistribute such title-registered land. The title is given by the authority of the Government of Kenya. Traditionally if a clan became too large for the available arable, then a group of brothers in the middle from a number of component lineages would sooner or later move to areas unclaimed by any other Kalenjin clan. They would of course take their major clan name with them. The British colonial administration imposed tribal boundaries, and so brought this kind of population movement to a halt. As a consequence Tugen population density, not high by any means, has been growing. Tugen now say that they have become so crowded that they cannot help looking into neighbors' front doors, an act which is considered rude to say the least.

22 Resources necessary to pastoral management (grass, water and salt-licks) are unevenly distributed or become exhausted periodically in one place or another. This necessi­dates the taking of cattle well beyond the confines of any local area (kokwet), hence the common tribal need for free, open access to such resources. However, bad feelings and conflict between men of different clans arises from time to time, and so, areas which are theoretically open become closed to some until the conflict is resolved. In this light, the strong Tugen emphasis on conflict-resolution and the esteem granted persons skilled in achieving it is quite understandable.
Grandparents and grandchildren, lineal or classificatory, are expected to ridicule each other, and joke in a manner involving ribald sexual talk, teasing and suggestion. For instance, a grandson might say to his grandmother that he will not sleep with her tonight if she persists in behaving in some particular manner. This occasions much mirth. Such talk will not go on if persons of other kin categories are near, nor if persons of the parental age-set are present or approaching the scene of interaction.

Kebrikei literally means 'fighting', but as a ritual it involves a mock fight between a person and his or her lineal grandparents. Both sides beat each other with long sticks after which the grandparents are presented with a gift of beer. Before this is done Tugen, and some other Kalenjin, say that the elder ones cannot see their great-grandchild without suffering mystical death. A deeper analysis of kebrikei is dependent on a description of the age-set system.

When children are six or seven years of age they are sent to live with a classificatory grandmother, in the case of a girl, or in a field house together with three or four friends of the clan, in the case of a boy. Such a house is termed seroinet. These boys will likely be initiated together by the same ritual sponsor, and so become bakulesiek to each other (see note 13). After initiation, a young man has a house to himself, at some distance, perhaps as much as a mile, from his parents' residence. His house will still be within the clan area however.

Social pressure worked quite well to this end in the past, but now young men are able to leave the tribal area and go to towns or farms in search of work. Chances are he will not have success in this, but the young man can often stay with friends or relatives away from the tribal area for varying lengths of time. In other words, there are now means to escape such pressures to some extent, and with this has come the emergence of the unwed mother and the abandoned wife. This is not entirely one-sided, however, for some unwed mothers have refused to marry, saying that they can get along without a man. They often said that even if they did marry their husbands would probably come around only to force some money out of them, and then leave.

Until recently Tugen did not require bridetoken in stock, and as far as poorer people are concerned they still do not. In recent years brides with secondary school education have commanded a substantial bridetoken, two grade cows or about 2000/-, and wives with primary school education, a lesser amount. Such women also demand monogamous unions. A poor man cannot afford this. Furthermore, a family which can give a
daughter, let alone a son, such education is among the wealthy few. Consequently the institution of high bridetoken serves to further crystallize emergent class stratification.

28 The bamwai (see note 13), like the motriot, the initiation sponsor, is chosen from the senior adjacent age-set for his high personal esteem. This is another example of Tugen using a ritual occasion to develop and sanctify personal connections which will be important to the individual throughout life.

29 Sigindo is formed on the verb kesich, 'to bear fruit'. This root is also in the tribal name Kipsigis. Tugen have a tale to the effect that when the nucleus of the Kipsigis parted from the Nandi, the Nandi said goodbye to them with the blessing that they be fruitful, hence, the name Kipsigis.

30 The personal birth-name is never used to address an adult, such usage marks childhood status.

31 This generational shift in teknonymous usage is in keeping with the Tugen symbolic separation of adjacent generations and the identification of alternate ones. This symbolism is expressed in a number of other ways: people of age-sets of alternate generations may dance together, a grandchild may enter a grandparent's home without permission, the grandchild may sit on the grandparent's bed, they may joke with each other in a ridiculing and sexual way, and if away from the clan area people of age-sets of alternates make accommodations for each other in their homes, just as age-set mates are expected to do.

Opposite-sex pairs of grandparent-grandchild often address each other, albeit jokingly, by spouse terms. Finally, after the death of an old couple, grandchildren in the man's agnatic line will be given the personal names of their deceased grandparents. Traditionally, such grandchildren are considered to be the reincarnations of the grandparents.

The implication in this, of course, is that persons of age-sets of adjacent generations do not have such rights and obligations with respect to each other. In fact the person in junior status is expected to be respectful and circumspect, just as with the parents and members of their age set.

32 Marriage choices may also be constrained by an unreconciled homicide. If someone of a given clan kills, whether purposely or not, someone of another clan, these clans cease to intermarry until a purifying ritual removes the mystical curse which is called into effect by the killing. Tugen believe that marital unions between members of such clans will either be without issue, or sickly and defective children will be born.
Two variant types are thereby possible, cases like the Tugen, where there is no preference, and cases where there is a clearly stated preference (F. K. Lehman, private communication). Tugen say that if an alliance was good and fruitful then there will be a preference because they believe the same result will mark the next alliance.

This belt is not to be confused with the belt called legatio and worn by a woman after she has given birth to hold in the abdomen. Oaths can be made on a légatio, and curses and blessings given by means of this belt.

There is also another debate, and that is about so-called elementary and complex systems in relation to the notions prescriptive and preferential. Elementary systems are defined as being systems with a rule that marriage with a relative of a certain category is prescribed (at the level of the model). As F. K. Lehman has pointed out (personal communication) there has to be of necessity several people in this marriageable category, and spouse selection is made in exactly the same way as in complex systems, i.e., in terms of economic, political and/or aesthetic-personality preferences, and not purely and simply on kinship criteria alone. The distinction between elementary and complex is therefore meaningless.
APPENDIX A

NAMES AND SUB-LOCATIONS OF SOME CENTRAL AND NORTHERN TUGEN CLANS

The emblem appears in brackets after the major name.

<table>
<thead>
<tr>
<th>Major Name</th>
<th>Minor Name</th>
<th>Sub-location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kabon (mose, baboon)</td>
<td>Kabaraot</td>
<td>Mowo and Kabarnet</td>
</tr>
<tr>
<td></td>
<td>Kablegenut</td>
<td>Kapchomuswo</td>
</tr>
<tr>
<td></td>
<td>Kabungungwo</td>
<td>Kinyo</td>
</tr>
<tr>
<td></td>
<td>Kamasirget</td>
<td>Kapropita</td>
</tr>
<tr>
<td></td>
<td>Kapchereker</td>
<td>Pungwon</td>
</tr>
<tr>
<td></td>
<td>Kapkaluny</td>
<td>Kapchomuswo</td>
</tr>
<tr>
<td>Kablegenut</td>
<td>Kavargesen</td>
<td>Ossen</td>
</tr>
<tr>
<td>Kabungungwo</td>
<td>Kapsanaiya</td>
<td>Kasisit</td>
</tr>
<tr>
<td>Kapchomuswo</td>
<td>Kasoto</td>
<td>Kapchomuswo</td>
</tr>
<tr>
<td>Kapchomuswo</td>
<td>Kaptere</td>
<td>Kabarnet</td>
</tr>
<tr>
<td>Kabartonjo</td>
<td>Kobilo</td>
<td>Seretunin</td>
</tr>
<tr>
<td></td>
<td>Kapter</td>
<td>Kabartonjo</td>
</tr>
<tr>
<td>Saniako (cherere, vervet monkey)</td>
<td>?</td>
<td>Kerio Valley, used to be in Keiyo</td>
</tr>
<tr>
<td>Sokome (chepsirere, hawk)</td>
<td>Sokome</td>
<td>Sokon (near Talai)</td>
</tr>
<tr>
<td>Sote (asista, sun)</td>
<td>Kapchepkunur</td>
<td>Cheploch</td>
</tr>
<tr>
<td></td>
<td>Mooi</td>
<td>Kabarnet, Timboiwo, Bartabwa</td>
</tr>
<tr>
<td>Talai (ngetuny, lion)</td>
<td>Kabmogwon</td>
<td>Kamnarok</td>
</tr>
<tr>
<td></td>
<td>Kabirmet</td>
<td>Talai</td>
</tr>
<tr>
<td></td>
<td>Kabormogi</td>
<td>Ossen</td>
</tr>
<tr>
<td></td>
<td>Kapchemalsat</td>
<td>Ossen to Kamnarok</td>
</tr>
<tr>
<td>Targok (terget, guinea fowl)</td>
<td>Kapcheokwet</td>
<td>Riwo</td>
</tr>
<tr>
<td></td>
<td>Kapchemenengai</td>
<td>Seretunin</td>
</tr>
<tr>
<td></td>
<td>Menach</td>
<td>Seretunin</td>
</tr>
<tr>
<td></td>
<td>Kapter</td>
<td>Chebartigon</td>
</tr>
<tr>
<td>Teriki (belyon, elephant)</td>
<td>Kapchemworen</td>
<td>Kabarnet</td>
</tr>
<tr>
<td></td>
<td>?</td>
<td>Pemwai</td>
</tr>
<tr>
<td>Tingo (kimagetiet, hyena)</td>
<td>Tingo</td>
<td>Seretunin and Bartabwa</td>
</tr>
<tr>
<td>Tuiyoi (lightning and thunder)</td>
<td>Kabela</td>
<td>*Kapchomuswo</td>
</tr>
<tr>
<td></td>
<td>Kapchemworen</td>
<td>Kapropita</td>
</tr>
</tbody>
</table>

*An iron-smith clan (kitong'ik) which originated from Sergoit in Uasin Gishu, the home of the Sirikwa Maasai, who were noted as iron-smiths.

There are two other clan names, Mogio and Shakwei, which occur in the south of Central Tugen.
APPENDIX B

KERIO KALENJIN AGE-SET NAMES AND THEIR CURRENT GRADE PHASES

<table>
<thead>
<tr>
<th>Males</th>
<th>Grade and Sub-grade</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kimnikeu</td>
<td>retired (or deceased)</td>
<td>Jelemei</td>
</tr>
<tr>
<td>Nyongi (Maina)</td>
<td>senior</td>
<td>Jepargamai</td>
</tr>
<tr>
<td>Chumo</td>
<td>Elders</td>
<td>(Selengwech)</td>
</tr>
<tr>
<td>Sowe</td>
<td>junior</td>
<td>Jepingwek</td>
</tr>
<tr>
<td>Korongoro</td>
<td></td>
<td>Jesiran</td>
</tr>
<tr>
<td>Kablelech</td>
<td></td>
<td>Jemasinyna</td>
</tr>
<tr>
<td></td>
<td>senior</td>
<td>—<em>Jesur</em>__</td>
</tr>
<tr>
<td></td>
<td>Men/Women</td>
<td>Kusantja</td>
</tr>
<tr>
<td></td>
<td>junior</td>
<td></td>
</tr>
</tbody>
</table>

| Boys/Girls Infants     |                            |                      |

| Tugen and Keiyek       |                            |                      |

<table>
<thead>
<tr>
<th>Males</th>
<th>Grade and Sub-grade</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nyongi</td>
<td>deceased</td>
<td>Kapture</td>
</tr>
<tr>
<td>Maina</td>
<td>retired</td>
<td>Cherikininh</td>
</tr>
<tr>
<td>Chumo</td>
<td>senior</td>
<td>Chesiewo</td>
</tr>
<tr>
<td>Sowe</td>
<td>Elders</td>
<td>Sekenken</td>
</tr>
<tr>
<td>Korongoro</td>
<td>junior</td>
<td>Kapcheusi</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cheptendur</td>
</tr>
<tr>
<td></td>
<td>senior</td>
<td>Tebesit</td>
</tr>
<tr>
<td></td>
<td>Men/Women</td>
<td>—<em>Kapture</em>__</td>
</tr>
<tr>
<td></td>
<td>junior</td>
<td></td>
</tr>
</tbody>
</table>

| Marakwet and Ndo       |                            |                      |

<table>
<thead>
<tr>
<th>Males</th>
<th>Grade and Sub-grade</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kimnikeu</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

|                        |                            |                      |
LITERATURE CITED

Atkins, John R.

Buchler, Ira and Henry Selby

Dale, Ivan R. and P. J. Greenway

Eggan, Fred

Ehret, Christopher

Evans-Pritchard, E. E.

Friedrich, Paul

Greenberg, Joseph H.

Huntingford, G. W. B.

Jacobs, Alan H.

1971-1972 Personal Communications.
Kipkorir, B. E.

Kuper, Adam  

Lang'at, S. C.  

Lehman, F. K.  
n.d. Personal Communications.

Lehman, F. K. and K. Witz  

Lévi-Strauss, Claude  

Lounsbury, Floyd  
Lowenthal, Richard

McKinley, Robert

Needham, Rodney

Republic of Kenya

Zuidema, R. T.

1969 Personal Communications.
VITA

David Wellington William Kettel was born September 27, 1937, in Toronto, Ontario, Canada. He completed his B.A. degree at University College, University of Toronto in 1964 and did two years of graduate work for his Master's degree at the University of Toronto before coming to the University of Illinois.

He has completed three field trips. The first was made to the Kwakiutl Reserve at Alert Bay, British Columbia, in the summer of 1967. In the summer of 1968 Mr. Kettel conducted preliminary fieldwork in Kenya in preparation for dissertation research. The dissertation field research was carried out from February 1971 through May 1972, amongst the Tugen people, Baringo District, Kenya.

Mr. Kettel worked as a Teaching Assistant for six semesters at the University of Illinois, in both introductory and advanced courses. Jointly with his wife, Bonnie Lee Kettel, he has published an article based on their fieldwork, in 1972, and delivered an invited paper jointly authored by his wife at the IXth International Congress of Anthropological and Ethnological Sciences at Chicago in September 1973. He presented a paper entitled "Crow-Omaha Revisited," also based on his fieldwork in Kenya, at the 73rd Annual Meeting of the American Anthropological Association at Mexico City in November 1974. Mr. Kettel is currently employed as an Assistant Professor
at the University of Northern Colorado and is a member of the American Anthropological Association.