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POLOMÉ, André Robert, 1946-
THE CLASSIFICATION OF THE BANTU LANGUAGES
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The University of Texas at Austin, Ph.D., 1975
Language, linguistics

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1975

THE CLASSIFICATION OF THE BANTU

LANGUAGES OF TANZANIA

by

ANDRÉ ROBERT POLOMÉ, B.A., M.A.

DISSERTATION

Presented to the Faculty of the Graduate School of

The University of Texas at Austin

in Partial Fulfillment

of the Requirements

for the Degree of

DOCTOR OF PHILOSOPHY

THE UNIVERSITY OF TEXAS AT AUSTIN

DECEMBER 1975

THE CLASSIFICATION OF THE BANTU

LANGUAGES OF TANZANIA

APPROVED BY SUPERVISORY COMMITTEE:

_____

Ben S. Blount
_____

_____

_____

To my mother, Julia, and my wife, Susan.

ACKNOWLEDGMENTS

I would like to express my sincere thanks to the following people; to Dr. Edgar C. Polomé, for supplying the raw data for this study; to Drs. King, Jazayery, Blount, and Van Olphen, for their patience, understanding, and academic counsel during the writing of this dissertation--especially, to Dr. King, for his support and guidance throughout my graduate studies, as well as his assuming the chairmanship of my Doctoral Committee; and to my wife Susan, for typing my dissertation, and for her patience and understanding during its preparation.

THE CLASSIFICATION OF THE BANTU

LANGUAGES OF TANZANIA

André Robert Polomé, Ph.D.

The University of Texas at Austin, 1975

Supervising Professor: Robert D. King

Using the techniques of word-geography and lexico-statistics, this dissertation aims at a reclassification of the Bantu languages of Tanzania and at a thorough revision of Guthrie's zoning of that area. It builds on the research done on the northern part of the country in the M.A. thesis submitted in 1971 under the title "The Classification of the Languages of Northern Tanzania."

The materials used are data collected in 1969-70 in the Survey of Language Use and Language Teaching in Tanzania. They include:

a) a set of 75 sentences based on Swadesh's two-hundred-word list;

b) vocabulary lists of about one thousand words based on the Proto-Bantu reconstructions of Meinhof, Guthrie, and Meeussen.

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The vocabulary items are mapped, and innovations and conservatism, as reflected by isoglosses, are interpreted in connection with the history and sociolinguistic situation of the relevant areas.

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CHAPTER I--INTRODUCTION

The ultimate goal of this dissertation is the classification of the Bantu languages of Tanzania using the morpho-geographical approach. This is a unique approach to the analysis of linguistic data and is an adaptation of the "empirical method" described by Malcolm Guthrie in his book, The Classification of the Bantu Languages (London, 1948). What we have done here is to combine the results of the analysis of two of the differentia which Guthrie proposes (i.e. lexical and phonological), tracing our findings back to the starred or Proto-Bantu forms prior to plotting the isoglosses on maps to determine the actual classification. The other three differentia mentioned by Guthrie are grammatical, phonetical, and tonal; we did not analyze these because the corpus of data available for this study was not structured for that type of analysis.[1]

The choice of country for study was totally arbitrary, the deciding factor being the availability of raw materials for Tanzania. Another factor which influenced this choice is the fact that the speakers of the Tanzanian languages are under enormous pressure from the government to learn Swahili, now the national

language. This condition is favorable to and manifested
in a gradual increase in borrowings from Swahili, which,
over a period of time, may result in linguistic modifi-
cations of the various borrowing languages.

The primary source of data for this study is a
portion of the materials collected in Tanzania by a team
of linguists led by Dr. Edgar C. Polome and sponsored by
the Ford Foundation during the year 1970. The other
major sources of information are Malcolm Guthrie's four
volumes on Comparative Bantu (Farnborough, England, 1967,
1970, and 1971), A.E. Meeussen's "Bantu Lexical Recon-
structions" (Tervuren, 1969), and Carl Meinhof's Intro-
duction to the Phonology of the Bantu Languages (Berlin,
1932).

In this study, we have been able to analyze only
ninety-three of the one hundred thirteen languages and
dialects that M.A. Bryan names as belonging to the Tan-
ganyika Territory in her book, The Bantu Languages of
Africa (London, 1954). This is due solely to the fact
that speakers of the twenty remaining languages were not
available for use as informants. In spite of this, we
believe that this study encompasses probably the largest
number of languages that has been dealt with in a single
study (cf. Figure I). Furthermore, many of the languages
included in this study have never before been studied or

even put into written form. In addition, a number of

these languages have never before been mentioned in pre-

vious classifications.[3]

The major part of this work depends on the analy-

sis of the "root" or "stem" of the lexical item.[4] There-

fore, the author feels that a definition of this term

should be provided here: "a root is a morpheme that

underlies an inflectional or derivational paradigm..."

or "such a form reconstructed for a parent language...."[5]

It should further be noted that, as a rule, roots in

Bantu are monomorphemic, i.e. the root typically con-

sists of only one morpheme, a morpheme being defined as

"the smallest meaningful unit in a language."

Another point that we would like to briefly dis-

cuss here is that of the problem of orthography. This

problem has been pointed out by many Africanists engaged

in collecting data on and analyzing African languages.

The first major problem faced here is the transcription

of the data by the informants. We must also cope with

this problem in this study because many of the languages

that we are classifying here have never before been writ-

ten down and have no formal orthography, or they have a

writing system which is not yet standardized. The forms

used here were chosen by the informants, fluent speakers

of Swahili, in an orthography that closely follows

standard Swahili; i.e. the graphemes represent the
sounds of the particular "dialect"[6] as they are identi-
fied with the phonemes of standard Swahili. Thus, some
of the variation in spelling occurring in the same dia-
lect and even the same word is due to the personal inter-
pretation (or misinterpretation) of the informant. A
good example of this would be the word for "sleep", which
occurs spelled as lala or as rara, with spelling variants
even within each of several dialects. In some cases, the
orthography reflects a free variation between the pho-
nemes /l/ and /r/; in others, a specific intermediate
phone is involved, for which Swahili /l/ or /r/ provide
only an approximation.[7]

There are other problems of a similar nature.
In the case of the insertion of an orthographic -h- in
words such as bara, meaning "piece", the spelling bhara
points to a slight phonological variation which may be
either aspiration or spirantization of the initial stop.
In some of the Chagga dialects, where three phonemic
types of /r/ are found, the informants resorted to the
use of diacritics to differentiate them in the orthogra-
phy, i.e. as r, r̠, and r̄.[8]

Since this paper focuses on lexical comparisons,
the orthography used by the informants is maintained,
except in cases of obvious discrepancies or errors,

which are specifically identified. Nor harm will result
in this kind of study from this procedure.

The map used for the isogloss drawings is from
the Atlas of Tanganyika East Africa (Dar es Salaam,
1956). Sources for other maps are Malcolm Guthrie's own
maps of classifications found in his Comparative Bantu
(London, 1948) and L. Berry's Tanzania in Maps (London,
1971).

The major aim of this work is to determine to
what degree the dialects of Tanzania are related to each
other and to classify or group them according to the
percentage of cognates. It will be noticed that we al-
ways use the expression "dialect" to mean either "lan-
guage" or "dialect". This is because it is not always
clear whether we are dealing with a language or with a
dialect. This is mainly due to the fact that a satis-
factory definition of "language" has not yet been pro-
vided, either by linguists or by socio-political research-
ers. One of the problems is that several criteria must
be taken into consideration when defining the term "lan-
guage": some of these criteria are purely linguistic,
e.g. the similarity of syntactic, phonological, and
morphological rules; others are socio-economic, e.g.
the types of economy, patterns of village organization,
etc.; still others are political considerations, e.g.

the structure of the political system and type of govern-
ment, etc. Both the linguistic and cultural aspects
must be collectively examined and considered in order to
accurately define language relationships. We may cite
an example: according to linguists, the Zulu and the
Sotho have a common language, as indicated by linguistic
similarities, with the differences being only dialectal.
However, the speakers of the two dialects feel that they
are of different ethnic backgrounds and will therefore
not admit to the relationship that is linguistically
obvious. For this reason, anthropologists, historians,
and political scientists have claimed that the Sotho and
Zulu dialects should be considered as being separate
languages rather than as two dialects of a single lan-
guage.[9] Since so many factors are involved in the deter-
mination of what constitutes a language versus a dialect,
and since the question is not crucial to our purposes,
we have decided not to become involved in this still un-
resolved dispute and to leave the term of reference of
the linguistic entities indeterminate.
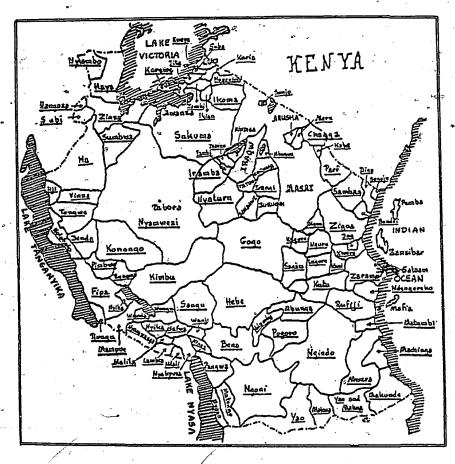
Finally, we hope that by arriving at our classi-
fications according to the genetic relationships of the
dialects and the analysis of the percentage of loan-
words,[10] i.e. a statistical survey of the Swahili influ-
ence, this work will help in determining the choice of

teaching approach to be used in various parts of the country for teaching Swahili to Tanzanians. It is likely that, the greater the percentage of Swahili loanwords found in a particular dialect group, the greater will be its degree of receptibility to Swahili. It might also be desirable and most effective to employ a single teaching method with the speakers of an entire group of dialects as determined by this method of classification. Such information could well be useful to language planners by giving direction to the choice of methods for teaching Swahili to the various dialect groups throughout Tanzania.

FOOTNOTES

1. See the chapter on Methodology for further details.

2. See the list of languages and dialects treated in this study in Appendix I.

3. For a list of previous classifications, see the chapter on Methodology.

4. Both Meinhof and Meeussen consistently reconstruct the Proto-Bantu stem in the form of root + final element, e.g. P.B. *#komb-a#, "smooth", whereas Guthrie reconstructs only the root, here, e.g. P.B. *#komb-#.

5. Jess Stein, ed., p. 1244.

6. For the purposes of this paper, it was not necessary to investigate the phonemic system of the languages under consideration on the basis of the available tape recordings of the text.

7. Mr. Kashoki, Director of the Institute for African Studies at the University of Zambia, told me in a private communication that his research team had encountered the same problem when they were doing the Survey of Language Use in Zambia. They turned to the use of a dash to express their doubt, i.e. using the term "language-dialect" in their book (which is not yet published). Cf. discussion of this point on page 5.

8. Two of these phonemic /r/'s are illustrated in the Old Moshi items wasoro "men" and mringa "water". The third phonemic type, orthographicaly represented by r, is very rare. Where the "l" replaces the "r" in the orthography, the three kinds are indicated in the fashion l, l, and l, in parallel with r, r, and r, respectively. The third variant is exhibited in the Rombo lexical item molo, meaning "hot".

9. From a personal discussion with Dr. Hunt Davis, historian and expert in South African history, teaching at the University of Florida, Gainesville.

10. See the chapter on Classification.

MAIN TRIBES AND LANGUAGES

LEGEND:

Bantu--underline indicates Bantu language

MASAI--capital letters indicate non-Bantu languages

After: Atlas of Tanganyika--East Africa. Third edition.
         (Dar es Salaam, 1956).

FIGURE I

CHAPTER II--HISTORICAL BACKGROUND

This dissertation deals exclusively with the lan-
guages of Tanzania that belong to the Bantu family. The
term "Bantu" which is used to refer to this large family
was coined by Dr. Wilhelm Bleek in his book, A Compara-
tive Grammar of South African Languages, published in
1862 (London).

> Dr. Bleek had observed that nearly every lan-
> guage spoken on the southern third of the African
> continent used prefixes which could be attributed
> to a set of what he called "PROTO-PREFIXES", pre-
> supposing a generic relationship and implying an
> aboriginal source.[1]

Bleek's statement raises many questions which
Africanists have spent lifetimes trying to solve. Some
of these questions are: (1) If all the Bantu speakers
come from a single homeland, where is it? (2) When did
they begin their vast migration? (3) What means did
they use for this migration? (4) Which routes did they
use? (5) What type of people were these proto-Bantu?
And so on.... Scientists in many fields have been work-
ing on these questions. However, as Dr. Collins points
out, none of the questions has yet been satisfactorily
answered, although we now have three plausible and not
wholly contradictory hypotheses.[2] Each of these hypo-
theses is based primarily on linguistic findings.

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The first of these theories or hypotheses was
provided by Harry H. Johnston in his book, A Comparative
Study of the Bantu and Semi-Bantu Languages (Oxford,
1919). He identified the parent Bantu speech as a
tongue of "West African" features spoken originally in
the heart of Africa "somewhere between the basin of the
Upper Nile, the Bahr al Ghazal, the Mubangi and the
Upper Benue..." in the Shari Basin.[3] Johnston traced the
first movement of the archaic parent-Bantu speakers east-
ward to the Nile Valley north of Lake Albert, where they
settled and developed into the "Proto-Bantu". There the
Proto-Bantu must have stayed at least until three or
four hundred years before Christ--late enough to have
started raising goats and cattle and to have received
domestic fowl from Egypt or Abyssinia. From there at
that time, Johnston goes on to say, the Bantu embarked
on their great career of conquering and colonizing the
southern third of Africa. He further stated that the
original Bantu invaders found no empty Africa before them
but that they were able to conquer the inhabitants and
impose their Bantu language on them. Johnston also re-
cognized the similarities between Bantu and many of the
West African languages. He called these languages "Semi-
Bantu" and explained their development in three ways:
Some of these had been passed down from archaic Bantu-

speaking ancestors from the Shari Basin. Others had been
passed down from speakers involved in an ealier south-
ward migration of the Proto-Bantu which occurred prior
to the main migration. Still others resulted from the
fusion of the languages of the Cross River and Benue
-Basin areas with those of the Bantu-speaking people who
finally broke through the great Congo forest and migrated
into those regions.

The second source of information, which is alo
linguistically based, is the Greenberg hypothesis.
Joseph H. Greenberg presented his ideas, beginning in
1949, with a set of articles published in the South-
western Journal of Anthropology. He reinforced and re-
stated what Westermann had said regarding the relation-
ships among various languages in the Sudan. In brief,
Greenberg classified the Bantu languages as a genetically
related subgroup of a larger and geographically extensive
subfamily which he called "Benue-Congo", which itself is
a subgroup of a larger language family, the "Niger-Congo".
His hypothesis, which reveals lexical similarities and
correspondences between morphemes in both form and mean-
ing, is based on a comparison of basic vocabulary rather
than just random borrowings or chance resemblances. Using
this method, Greenberg placed the Bantu homeland in the
Central Benue Valley along the present Nigerian-Cameroon

border, in the same general area as the other Benue-
Congo languages. He claims that it was from this rather
well-defined region that the Bantu began their migration.

The third and final hypothesis based on linguis-
tic evidence is that provided by Professor Malcolm Guth-
rie, who agrees with Greenberg's analysis of the rela-
tionship of the languages in the Cameroon Highland and
the lowland strip opposite the Island of Fernando Po.
However, Guthrie does not agree that this is the original
birthplace of the Bantu languages. The method employed
by Guthrie is a study of "sound-shifts" for cognate
items. He used cognates to construct a "root" word which
approximates that of the original "Proto-Bantu" language.
By applying the rules of sound-shifting, he was able to
judge each cognate as a "reflex" of the root. Since,
like Greenberg, he recognizes the similarity among cer-
tain languages of West Africa, he proposes a "Pre-Bantu"
language hypothesis in the same way that Johnston had
proposed "Semi-Bantu". However, Professor Guthrie sug-
gests the savanna country of Central Africa just below
the equatorial rainforest for the Proto-Bantu homeland.

With regard to the validity of these three hypo-
theses, Dr. Collins states that Johnston's theory has
been rejected by most scholars who have researched this
question, but he fails to specify who the scholars are

or what their objections are. In contrast to this,
Joseph Greenberg's theory has received a great deal of
support from various scientists, especially from anthro-
pologists such as George P. Murdock, Christopher Wrigley,
and Merrick Posmansky. The third theory of Bantu expan-
sion, that presented by Malcolm Guthrie, is supported by
G.W.B. Huntingfold and by the historian Roland Oliver,
among others. Oliver states that there is actually no
discrepancy between the theories of Greenberg and Guthrie,
but that Guthrie's theory merely takes the origin of the
Bantu peoples and place further back in time.

We shall briefly outline the points made in favor
of Greenberg's theory in Murdock's book, <u>Africa: Its
People and Their Culture History</u> (New York, 1959) and,
in addition, will examine the stages theory presented by
Roland Oliver and based on Guthrie's linguistic data.

Murdock noted that practically all of the vast
African territory was occupied by non-Bantoid peoples--
mainly hunters and gatherers belonging to the Pygmoid
race in the west and the Bushmanoid race in the east and
south--until after the time of Christ. However, once
begun, the Bantu expansion conquered many of these peo-
ples.

> During the past 2,000 years the Bantu have shown
> the capacity for explosive expansion paralleled
> by no other group or groups of people since the

dawn of recorded history, if it is only by the
Arabs after Mohammed, the Chinese and the Euro-
pean nations since the Discoveries Periods.[5]

[6]

In 1955 Greenberg provided linguistic evidence
which clearly indicates that the original homeland of the
Bantu must have lain immediately adjacent to the terri-
tory of the speakers of the other Macro-Bantu languages,
i.e. in the Cameroon Highlands and the lowland strip
connecting the latter with the coast opposite the Island
of Fernando Po[7] (see Figure II). On the basis of these
linguistic facts, it is impossible for the Bantu to have
come from anywhere else.

Since there is no direct historical or archeo-
logical evidence for the date at which the Bantu started
to penetrate the tropical forest, we are forced to rely
on two less accurate sources for the approximate date of
their arrival in this area. One source is, again, lin-
guistic evidence: the close genetic relationship among
the various Bantu languages indicates a relatively recent
date for their splitting off from a single ancestral
speech community. In this connection, Murdock mentions
as another linguistic source the work of Olmstead in
1957:

Olmstead has applied modern glottochronological
techniques to compare ten maximally diverse Bantu
languages with one another. Though Olmstead's
estimates of the time of separation vary with the

particular pairs compared, and especially with
difference in the purely technical treatment of
doubtful cognates and use frequency, his results
on the whole suggest an elapsed period of about
three millennia. If one allows for a thousand
years of linguistic differentiation in the Bantu
homeland before the dispersion began, this esti-
mate would agree perfectly with the conclusions
from the alternative line of reasoning.[8]

A second method that Murdock mentions for deter-
mining approximate dates in the Bantu expansion is based
on known historical facts. For instance, it is known
that Malaysian food plants were established on the Aza-
nian Coast of East Africa by 60 A.D., the approximate
date of the visit of the anonymous Greek merchant mari-
ner. This mariner travelled around the eastern horn and
down the coast of Africa at least as far as Dar es Salaam,
and perhaps even further. He described this coast and
the ports of Azania in a famous book entitled, Periplus
of the Erythraean Sea (n.p., n.d.). In it he gave ex-
plicit records and described the flourishing trade which
then existed with Southern Arabia and India, as well as
that of the Yemenite resident merchants, who were married
to local women and understood the native language. In
addition to this information, archeological evidence such
as radio-carbon dating of the Zimbabwe ruins in Southern
Rhodesia placed the Bantu there at a later date, in the
seventh century.

Let us now look briefly at what Roland Oliver

presents in his article, "The Problems of the Bantu

Expansion" (Journal of African History VII, No. 3, 1966,

pp. 361-76). Oliver cites Johnston's classic explanation

that the Bantu hordes invaded the southern half of the

continent. He also refers to Dr. C.C. Wrigley's idea

that the Bantu were a dominant minority who hunted with

spears and used iron.[9] He further suggests, as did Mur-

dock, that the adoption of crops from Asia, which were

suited to a different environment, allowed the Bantu to

expand their habitat to the south and east. In addition,

Oliver mentions that a matrilineal social system and the

drum type of bellows analyzed by G.W.B. Huntingfold have

been found to be associated with the Bantu at the time

they moved eastwards out of the Congo.[10]

    Oliver explains the Bantu expansion in four

stages:

    Stage I. The first stage consisted of a very

rapid migration of a few dozen or hundreds of the people

that Guthrie called "Pre-Bantu", following the Congo

waterways from the Cameroons or Ubangi-Shari woodlands

to the woodlands south of the Congo forest.

    Stage II. This stage consisted of the consoli-

dation of the settlement of these first migrants and their

gradual expansion through the southern woodland belt from

coast to coast.

Stage III. Oliver tentatively suggests that
Stage III occurred mainly during the second half of the
first millennium A.D. It consisted primarily of expansion in the same trend as during the second stage. This
portion of the migration was facilitated by the Bantu's
use of South Asian crops such as banana, taro, and yam.

Stage IV. This stage of the Bantu expansion belongs to the present millennium. It consisted mainly of
the colonization of the remainder of the present Bantu
Africa by the surplus populations generated within the
area occupied at Stage III (see Figure III).

For further details on these stages we refer the
reader to a number of articles on this subject which have
been reprinted in Problems in African History (New Jersey, 1968).
11

As mentioned above, it is very difficult to know
exactly what happened with the Bantu people initially,
where they originated or what prompted their tremendous
migration. One can only speculate, accept certain theories as fact, and go from there. This author holds the
view that Roland Oliver's interpretation of the facts
provided by Guthrie and other scholars who have carried
out intensive research on this question is the one most
likely to be accurate.

FOOTNOTES

1. Robert O. Collins, p. 57.

2. ibid., p. 57.

3. ibid., p. 57.

4. ibid., p. 59.

5. George P. Murdock, p. 271.

6. As explained above, the Bantu languages as a group, despite their large distribution, constitute but one of the seven branches of the Macro-Bantu subdivision of the Bantoid sub-family of the Nigritic Stock. The other six branches are confined to a very small area near the Cameroon-Nigerian border.

7. op. cit., pp. 271-76.

8. ibid., p. 273.

9. In "The Problem of the Bantu Expansion", p. 102, Oliver quotes the following from C.C. Wrigley:
   I see these people not as agriculturalists spreading over a virtually empty land, but as a dominant minority, specialized to hunting with the spear, constantly attracting new adherents by their fabulous prestige as suppliers of meat, constantly throwing off new bands of migratory adventurers, until the whole southern subcontinent was iron-using and Bantu-speaking.

10. His article, "The Peopling of the Interior of Africa by its Modern Inhabitants" refers to that particular study, reprinted in Collins' book, pp. 87-88.

11. For more detailed information on this subject, one may wish to consult the following articles, found in Problems in African History, edited by Robert O. Collins:
    Johnston, "The Distribution and Characteristics of the Bantu Languages"
    Guthrie, "Some Developments in the Prehistory of the Bantu Languages"
    Wrigley, "Linguistic Clues to African History"
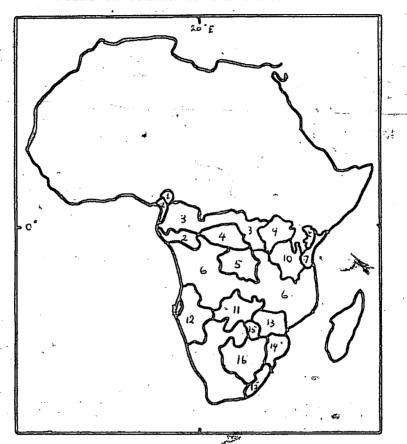
_____, "Speculations on the Economic Prehistory
   of Africa"
Huntingfold, "The Peopling of the Interior of
   Africa by its Modern Inhabitants"
Posnansky, "Bantu Genesis"
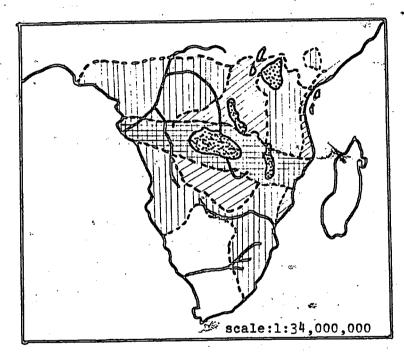
POINT OF ORIGIN OF THE BANTU

1. Cameroon Highlanders; 2. Northwestern Bantu;
3. Equatorial Bantu; 4. Mongo; 5. Luba; 6. Central
Bantu; 7. Northeast Coastal Bantu; 8. Kenya Highland
Bantu; 9. Interlacustrine Bantu; 10. Tanganyika Ban-
tu; 11. Middle Zambesi Bantu; 12. Southwestern Bantu;
13. Shona; 14. Thonga; 15. Nguni; 16. Sotho.

FIGURE II

THE FOUR STAGES OF OLIVER'S DESCRIPTION

This map is from the article by Roland Oliver
entitled "The Problem of the Bantu Expansion",
found in the Journal for African History VII,
No. 3, 1966.

scale:1:34,000,000

Bantu Nucleus
Stage 2 of Bantu Expansion
Stage 3 of Bantu Expansion
Stage 4 of Bantu Expansion
Non-Bantu

FIGURE III

CHAPTER III--PRIOR CLASSIFICATIONS

In this chapter we shall present an overview of some of the previous classifications of the Bantu languages. These classifications are of two main types: those based on linguistic analysis, and those founded upon non-linguistic, primarily anthropological, studies.

We shall provide for reference a list of the best-known linguistic classifications of the Bantu languages. In addition to this, the works of both Sir H.H. Johnston and Malcolm Guthrie will be presented in greater detail. We have focused upon the studies of Johnston and Guthrie here for fundamental reasons: both Johnston and Guthrie have researched the pattern of Bantu migration.[1] In addition to this, they have provided the most thorough linguistically technical analyses of the Bantu languages seen so far. Johnston, furthermore, has provided Africanists with a wealth of raw data for study which is no longer obtainable in present-day Africa. Together, Johnston and Guthrie are generally regarded by Bantu language researchers as the most prominent and expert scholars of the twentieth century in the field of Bantu language study. It is for these reasons that we have chosen to discuss their classifications at length in this chapter.

In the latter part of the chapter, we will also summarize several classifications of the Bantu languages which are based on anthropological data.

We will begin with the grouping proposed by Sir Harry H. Johnston in his book, A Comparative Study of the Bantu and Semi-Bantu Languages, Vol's I and II (Oxford, 1919 and 1922). Johnston arrived at his grouping by analyzing each language using the following twelve characteristics as defining features of Bantu languages:

1. The vowels of the Bantu languages are always of the Italian type, and no pure Bantu language includes obscure sounds like ŏ, a, oĕ, and ü. Each syllable must end in a vowel, though in some modern dialects in eastern and western Equatorial Africa, in Congoland, and South Africa, the terminal vowel may be elided in rapid pronunciation or may be dropped or absorbed in the terminal consonant, generally in such cases a guttural or a nasal. No two consonants can come together without an intervening vowel, except one of them be an aspirate or a nasal (m, n, ñ), and no consonant is doubled in pronunciation. Apparent exceptions occur to this last rule where two nasals, two r's, two d's, or two t's, come together through the elision of a vowel or a labial, or where the ordering aspirate, nasal, or dental is reinforced so that it sounds like a double h, n, or t.

2. They are agglutinative in their construction, the meaning of the root word being defined or enlarged and the syntax formed by the addition principally of prefixes, and secondarily of suffixes added to the root: but no infixes (that is to say, no mutable syllable) is incorporated into the middle of the root-word.

3. The root, excepting very rarely its initial vowel or consonant or its terminal vowel, is practically unchanging; though its first or

penultimate vowel or consonant may be modified
in pronunciation by the preceding suffix, or the
last vowel of the root similarly, by the succeed-
ing suffix. In the great majority of cases, how-
ever, the root-word remains absolutely unchanged
through all syntactic combinations. It is fre-
quently monosyllabic and very seldom of more than
two syllables in its original and underivative
form. But it is impossible to trace back Bantu
construction to a monosyllabic basis, as some
writers have attempted to do.

4. Substantives are divided into classes or gen-
ders indicated by the pronominal particle ("pre-
fix") which precedes the root of the fully ex-
pressed noun. These prefixes in an ordinary way
have attributed to them, definitely, either a
singular or a plural sense. With the exception
of the abstract prefix Bu- (#14), no singular
prefix can be used as a plural; and although the
second (Ba), the sixth (Ma), the eighth (Bi), and
the twelveth (Tu) are in some languages used in
an honorific or collective sense, which causes
them even to be applied like prefixes of the sin-
gular number, this use is easily traced down from
a plural origin. There is a certain degree of
correspondence between the singular and plural
prefixes. The number of prefixes common to the
whole family is perhaps seventeen, though there
may be two other classes, number eighteen and
nineteen (Gu, sing., Ga, plural) which, if they
cannot be shown to be ancient variants of numbers
three and six, would raise the total number to
nineteen. These seventeen or nineteen pronominal
particles, three of which (15, 16, and 17) often
decay into mere prepositions, are attached as
prefixes to the roots of the nouns and verbs.
Other monosyllables may be used as qualifying
prefixes before noun-roots, chiefly in a mascu-
line or feminine or dimunitive (father, or mother
or child) sense, but they have no concord, no dis-
tinctive pronominal particle.

5. Bantu languages are especially characterized
by the principle of the "concord". In close
connexion with the prefixes are similar monosyl-
lables associated with each class of noun, which
are prefixed to the adjective or numeral in cor-
respondence with the noun, or serve the noun in

the sentence as pronoun or as pronominal particle
in the verb. They combine with a vowel, (most
commonly -a), to form a genetive copula; and as
an identifying suffix or prefix fuse with any
interrogative, relative, collective, or demon-
strative pronoun, with adverbs or prepositions
which refer to the noun they represent. The
forms of these concord-particles or pronouns are
usually like the prefix with which they are as-
sociated; yet there is occasionally a dissimi-
larity showing diversity of origin. From these
concord-particles seem to have arisen, early in
the development of the Bantu languages "pre-
prefixes", or additionally demonstrative articles
(answering somewhat to the English "the"). These,
when definiteness of utterance was desired, pre-
ceded the actual prefix. In the most archaic
forms of Bantu speech these pre-prefixes are syl-
lables of consonant and vowel identical with the
pronominal concord: thus the full form of the
conjoined pre-prefix and prefix in Class One of
the north-west Elgon dialect is Gu-Mu-, Gu- being
the pre-prefix of Mu- in both Classes One and
Three. Baba is the full form of the Second Class,
and Ga-Ma of the Sixth Class.

6. With the aid of these pronominal and adjec-
tival particles a complete "concord" is main-
tained between the noun and its dependent adjec-
tives, numerals, demonstratives, pronouns, verbs,
prepositions, and (sometimes) also adverbs.

7. Suffixes of an adjectival, locative, or pre-
positional sense may also be applied to nouns,
and of an adverbial and post-positional quality,
to verb-roots.

8. No sexual gender is directly recognized in
the classes or categories represented by the nine-
teen prefixes with concord particles, or by the
personal pronouns. These last make no distinc-
tion between "he" and "she", "they" (female) and
"they" (male). But a distinction of sex may be
conveyed to nouns and adjectives by sex-prefixes
and suffixes (usually Na-, Nya; Se-, Si-, Sa-;
-kazi and -rume). Of the seventeen or nineteen
categories of nouns, the prefixes and concords
of Classes One and Two are chiefly reserved for
human beings. Classes Three and Four have a

great deal to do with trees, vegetables, and implements (especially of wood), and members of the body. Class Five comprises many round things like fruits, eggs, stones, the sun, the eye, a tooth, a horn; and is also associated with gigantic objects and augmentatives. Class Six, its plural, has a collective sense and refers to liquids, assemblages of people, animals, and inanimate objects. Class Seven (plural #eight) indicates tools, furnitures, methods, "kind of", "manner of doing things or of speaking". Classes Nine and Ten were often associated with beasts, birds, reptiles and fish. Class Eleven (Lu or Du) with "long things", rivers, tongues and languages, long stretches of country or ranges of mountains. Classes Twelve and Thirteen were usually diminutives, but Class Thirteen (Ka) could also be given a specially feminine, tender, and finally honorific sense. Class Fourteen (Bu) was generally the prefix of abstract qualities, answering to our English suffix "-ness". Class Fifteen was applied specially to certain members of the body like ears, arms, and legs, but mainly associated with "doing" things, with verbs as an infinitive, with direction as a locative--"to" or "from". Class Sixteen represented only "place", "here", "on"; or had to do with time. Class Seventeen meant "in-ness", "inside". Class Eighteen and Nineteen, where they existed, were given the simplification of "great size", "unusualness", "awfulness".

9. Numeration in the original Bantu was certainly decimal. The root for "ten" -kumi is virtually common to more than 9/10 of the Bantu languages, and so in a lesser proportion are words for "hundred" (-kana or -kama).

10. Demonstrative prefixes and pronouns are often preceded by a directive "n" ("m" before labials) which emphasizes attention. Pronouns in the nominative case always preceded the verb-root and the objective or accusative pronoun; which last likewise ordinarily takes its place before the governing verb-root.

11. The root-word of the verb, free from prefixed or suffixed particles, is always the second person singular of the imperative. The sense,

application, and complexity of verbal roots as
concepts can be modified, enlarged, affected
adverbially in many ways by changing the terminal
vowel and adding suffixes, some of which almost
lead to a process of inflexion by the carrying
back of their dominant vowel. In normal Bantu
languages verb-roots end in "-a" almost invaria-
bly. The verb can be given a passive instead of
an active signification by means usually of a suf-
fix. No changes of the verb-root are attempted
at the initial; but preceding the verb-root
come the particles which indicate tense and mood,
the pronouns, prepositions and the syllables of
negation. On the other hand, adverbial particles
and occasionally particles with a relative or
"refer-back" sense are tacked on to the termina-
tion of the verb-root. Negation is most commonly
conveyed by prefixial particles, -Ka-, Sa-, Ta-,
Ki-, Si-, or Ti-, (or variants of these), but al-
so by negative suffixes or adverbs, and sometimes
(additionally) by changing the terminal -a of the
verb-root to -i. With very rare exceptions, the
prefix which turns the simple verb-root into an
infinitive is Ku- (#15 prefix).

12. Prepositions are used, not postpositions;
the only exception to this rule being the loca-
tive -ni (-nyi, -n, -ñ) meaning "in", which often
accompanies the seventeenth prefix and concord,
Mu-. Adverbs, on the other hand, when not treat-
ed as independent qualifying nouns or adjectives
are suffixes, following the verb-roots or pro-
nouns they govern. The most characteristic and
widespread of the Bantu prepositions--in some
cases not to be distinguished from Class prefixes
--are na-, ni-, (with by, and), -a (of), ku- (to),
pa- (at, on), and mu- (in).[2]

We shall reproduce immediately below Johnston's

classes for only those languages and dialects relevant
[3]
to our present study:

Group B: Nyamwezi

  (9) North and north-east Nyamwezi (Sukuma)

    (9a) North-west Nyamwezi (Sumbwa)

(10) Ki-nyaturu (Ki-Rimi)

Group C: British East Africa

    (17) Chagga

        (17a) Moshi

        (17b) Siha

        (17c) Machame

        (17d) Rombo

        (17e) Meru

    (18) Pare-Gweno

Group E: Usambara

    (19) Shambala

        (19a) Bondei

    (20) Zigula

        (20a) Nguru

        (20b) Doe

        (20c) Kwere

Group G: Usagara-Ugogo

    (23) Zaramo

        (23a) Kami

        (23c) Ruguru

    (24) Kaguru and North Sagara

    (25) Gogo

(26) Irangi

    (26a) Bugwe

Group H: Upper Rufiji

   (27) Hehe

   (28) Pogoro

   (29) Safwa, Sangu

   (30) Bena

    (31a) Mbunga

Group I: Rufiji-Ruvuma

   (32) Matumbi

   (33) Mwera

   (34) Makonde

Group J: N. Ruvuma, N.E. Nyasaland

   (35) Sutu

    (35a) Matengo

   (36) Pangwa

Group K: Ukinga

   (38) Kinga

Group L: Tanganyika-Bangweucu

  Sub-group L$_5$

   (45) Fipa

   (46) Rungwa

Group M: N.W. Nyasa

Sub-group M_1

(48a) Kimanda

(50) Rambia and Ndali

Sub-group M_2

(51) Nyakyusa

Group N: Yao-Ngindo

(54) Yao

(55a) Mpoto

Group O: Moçambique

(56) Makua

Group P: South Nyasaland

(61) Nyanja (East Nyanja)

It should be noted that there are a number of languages and dialects investigated in the present study which were not included in Johnston's classifications.[4]

We shall now reproduce the portion of Guthrie's classification of the Bantu languages which is relevant to our study. Guthrie based his language groups on the following criteria,[5] which he applies in a system of classification which he terms the "Practical Method":

A. Principal Criteria

I. A system of grammatical "genders",[6] usually

least five, with these features:

(a) The sign of "gender" is a prefix, by means of which words may be assorted into a number of classes varying roughly from ten to twenty.

(b) There is a regular association of pairs of classes to indicate the singular and plural of the genders. In addition to these two-class genders, there are also one-class genders where the prefix is sometimes similar to one of the singular prefixes occurring in a two-class gender, and sometimes similar to one of the plural prefixes.

(c) When a word has an independent prefix as the sign of its class, any other word which is subordinate to it has to agree with it as to class by means of a dependent prefix.

(d) There is no correlation of the genders with sex reference of with any other clearly defined idea.

II. A vocabulary, part of which can be related by fixed rules to a set of hypothetical common roots.

B. Subsidiary Criteria

III. A set of invariable cores, or radicals, from which almost all words are formed by an agglutinative process, these radicals having the following features:

(a) They are composed of consonant-vowel-consonant.

(b) When a grammatical suffix is attached to the radical there is formed a "base" on which words identifiable as "verbals" are built.

(c) When a non-grammatical, or lexical, suffix is attached to the radical there is formed a "stem" on which words and tones of the stem are the same in both classes.

(d) A radical may be extended by an element found between it and the suffix. Such elements, termed "extensions", are composed either of vowel-consonant or of a single vowel.

(e) The only case of a radical occurring without a prefix of any kind occurs in verbals used as interjections.

IV. A balanced vowel system in the radicals, consisting of one open vowel with an equal number

of back and front vowels.

The following classification is that established by Guthrie for the languages of Tanzania.[7] It is this language grouping that eventually will serve as the basis for comparison with the results of our study.

Zone D

D 64   Shubi

D 65   Hangaza

D 66   Kiha

Zone E

E 21   Nyambo

E 22   Haya

E 23   Zinza

E 24   Kerewe

E 25   Jita/Kwaya

E 42   Ngurimi

E 43   Sweta/Kuria/Suba

E 44   Kabwa/Zanaki/Simbiti/Ikizu/Kiroba/Sizaki

E 46   Sonjo

E 56   Segeju

E 60   Siha/Kibosho/Uru/Masama/Mwika/Usseri

E 61   Meru

E 62

E 62a   Machame/Old Moshi

E 62b   Vunjo

E 62c   Rombo

E 65   Gweno

E 73   Digo

E 74   Taita

Zone F

F 12   Bende

F 21   Sukuma

F 22   Nyanyembe/Lwira

F23   Konongo

F 24   Kimbu

F 31   Nyiramba

F 32   Rimi

F 33   Kirangi/Isanzu

F 34   Mbugwe

Zone G

G 11   Gogo

G 12   Kaguru

G 22   Pare

G 23   Shambala

G 24   Bondei

G 31   Zigua (Zigula)

G 32   Kwere

G 33   Zaramo/Doe

G 34   Ngulu

G 35   Luguru

G 36   Kami

G 37   Kutu

G 39   Sagara

G 51   Pogoro

G 52   Ndamba

G 61   Kisangu

G 62   Hehe

G 63   Bena

G 64   Pangwa

G 65   Kinga

G 66   Wanji

Zone M

M 11   Pimbwe

M 12   Rungwa

M 13   Fipa

M 14   Rungu

M 21   Ndali

M 23   Nyiha

M 24   Malila

M 25   Safwa

M 31   Nyakyusa

Zone N

N 11   Kimanda

N 12   Kingoni

N 13   Kimatengo/Sutu

N 14   Mpoto

N 21   Rambia

N 31   Nyanja

Zone P

P 11   Ndengereko

P 13   Matumbi

P 15   Mbunga

P 21   Yao

P 22   Mwera

P 23   Makonde

P 31   Makua

C.M. Doke adopted Johnston's classifications for use in his study, published in Bantu: Modern Grammatical, Phonetical, and Lexicographical Studies since 1860 (London, 1945). However, Doke's treatment combines many of Johnston's groups into larger groups or zones labelled for geographic areas. We are concerned here only with those languages covered by Doke's Eastern Zone (which incorporates Johnston's groups B through K), his East-Central Zone (combining Johnston's groups M, N, O, and P), and his Northern Zone. The Kerewe and Ha languages

together comprise Doke's Northern Zone; neither of these
languages was included in Johnston's study.

Other notable classifications of the Bantu lan-
guages which are based on linguistic data are the follow-
ing: W. Bleek (1862); J. Torrend (1891); A. Drexel
(1926); L. Homburger (1929); G. Van Bulck (1949, 1952);
and M.A. Bryan (1959).[8]

The Bantu languages of Africa have been classi-
fied in a number of non-linguistic studies. The primary
source of non-linguistic classifications are those based
on anthropological and sociological descriptions of the
characteristics of the speakers of those languages. We
have summarized below the major points of several anthro-
pological studies. These are the only significant anthro-
pological classifications of the Bantu languages known to
the author for Tanzania.[9]

T.O. Beidelman grouped the Zaramo, Kwere, Luguru,
Kutu, Kaguru, Sagara, Vidunda, Ngulu, and Zigula speakers
into one large category on the basis of a number of shared
anthropological and sociological traits. Beidelman dis-
cusses the similarities among their societies in The Ma-
trilineal Peoples of Eastern Tanzania (London, 1967):

> All of these peoples are hoe-cultivators with
> maize and millet as their staples, though dry rice
> is a staple in some of the lowland and mountain
> areas of Luguru, Vidunda, Zaramo and Ngulu...None
> of these societies had, traditionally, a truly

centralized political system, although the Vi-
dunda did have a weak paramount chief whose main
role seems to have been marshalling defence for-
ces and in conducting certain rites of land puri-
fication...All of these societies were tradition-
ally organized politically in small neighbourhood
groups, the inhabitants of each being linked to
one another through common ties to a dominant
matrilineal group...All these societies hold im-
portant ceremonies of initiation for both male
and female youth.[10]

R.G. Abrahams focused his study on the geogra-
phical area in west-central Tanzania called the "Greater
Unyamwezi". He grouped the Nyamwezi, Sukuma, Sumbwa,
Kimbu, and Konongo languages on the basis of a thorough
survey of ethnographic materials and characteristics of
the language speakers. His findings are published in The
Peoples of Greater Unyamwezi, Tanzania (London, 1967).

Roy G. Willis employed ethnographic criteria to
group the languages of Bantu speakers geographically clus-
tered in the area between the southern end of Lake Tan-
ganyika and the Rukwa and Nyasa Lakes. This grouping,
which includes the speakers of Fipa, Nyamwanga and Iwa,
Lungu, Mambwe, Pimbwe, Wanda, Lungwa, Kuulwe, and Cile,
is described in his volume, The Fipa and Related Peoples
of South-West Tanzania and North-East Zambia (London,
1966). The criteria used by Willis for this study were
those suggested by Monica Wilson:[11]

1. Language: there are two distinct criteria:
   (a) the practical test of mutual intelligi-
   bility or the contrary as between speakers of

nominally different languages or dialects;
   (b) the linguist's assessment, based largely
on a comparison of vocabulary and grammatical
structure.

2. An expressed sense of likeness or relatedness
between members of distinct groups, often in the
form of traditions of common origin; or contrary
statements of difference and unrelatedness.

3. Settlement pattern: the broad distinction is
between dispersed and concentrated settlement.
The habitations of all the people treated here
fall into the second category.

4. Descent system: this criterion distinguishes
types of lineality or absence of lineality;
terms for kin and affines and concomitant beha-
vior patterns; presence or absence of marriage
preferences, prescriptions or prohibitions; and
rules of inheritance and succession.

5. Indigenous political system: all the peoples
discussed here were traditionally organized in
hierarchical state systems.

6. Economy: subsistence millet cultivation is
the economic basis of all the peoples in this
group. . .

7. Traditional material culture, including house
types, pottery, ironwork and weaving; scarifi-
cation and other body mutilations.

8. Rituals: primary rituals--birth, marriage and
death.

9. Religion: beliefs concerning gods and spirits
and corresponding forms of worship.

It must be noted that most of the information

provided here covers only the northern portion of Tanza-

nia. This is due to the fact that very little research

has been done in the southern part of the country.

Some of the earlier non-linguistic classifications

--late nineteenth and early twentieth century--were based solely upon geographical data, i.e. a particular language was labelled by referring to its location with respect to a major town or landmark within a geographical territory. In some cases, the language groupings established in this manner may correspond with groupings obtained by linguistic classifications, for the obvious reason that languages that are similar or related are often found to be geographically close to one another.

FOOTNOTES

1. See Chapter II for historical information on the Bantu migration.

2. Johnston, Vol. I, pp. 18-20.

3. Johnston, Vol. II, pp. 2-5. Here we will use the modern spellings for the language names, e.g. Caga=Chagga.

4. Languages treated in this study that were not investigated by Johnston are: Nyambo, Haya, Zinza, Kerewe, Jita, Kuria, Kiroba, Zanaki, Kabwa, Suba, Ruri, Sizaki, Lwira, Kimbu, Bende, Nyiramba, Isanzu, Kibosho, Uru, Vunjo, Masama, Mwika, Usseri, Kutu, Ndamba, Rungu, Pimbwe, Kingoni, Konongo, Kwaya, Malila, Ndengereko, Kiha, Sweta, Simbiti, Hangaza, Ikizu, Shubi, Sonjo, Segeju, Wanji, and Ngurimi.

5. Guthrie, The Classification of the Bantu Languages, pp. 11-12.

6. Guthrie uses this word to refer to "class" or "concord".

7. See Figure IV, p. 42.

   The author pointed out in his M.A. thesis that, for the northern part of Tanzania, four major groups were required, not three zones as Guthrie had, to adequately represent the interrelationship between the languages and dialects.

8. Full bibliographical information on references for these classifications is given below:

   Bleek, W. A Comparative Grammar of South African Languages: Part I: Phonology. London: 1862. Part II: The Concord, Section I, The Noun. London: 1869.

   Drexel, A. "Gliederung der afrikanischen Sprachen," Anthropos, Vol. XVI-XX (1921-1925).

   Homburger, L. Les prefixes nominaux dans les parlers Peul Haoussa et Bantous. Paris: 1929.

Torrend, J. Comparative Grammar of South African
    Bantu Languages. London: 1891.

Van Bulck, G. Manuel de linguistique Bantoue.
    Bruxelles: 1949.

_____. "Les Langues Bantoues," Les
    Langues du Monde, ed. A. Meillet and M. Cohen.
    Paris: 1952 (second edition), pp. 847-904.

9. Each of these summaries has been excerpted from arti-
    cles in the series of volumes entitled, Ethnographic
    Survey of Africa, edited by Daryll Forde (London,
    1966 and 1967).

10. T.O. Beidelman, pp. xiii-xiv.

11. Roy G. Willis, p. ix.

GUTHRIE'S ZONES

FIGURE IV
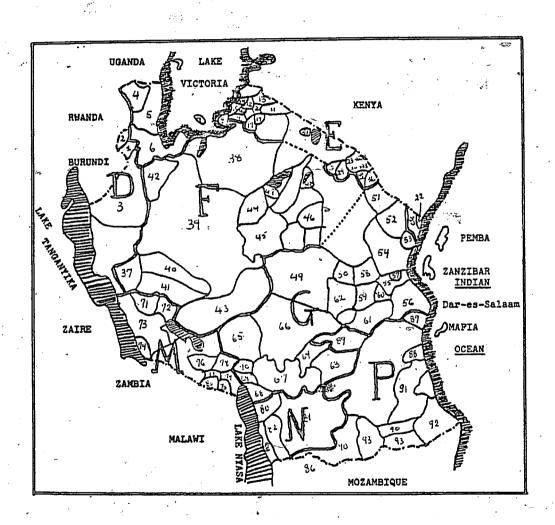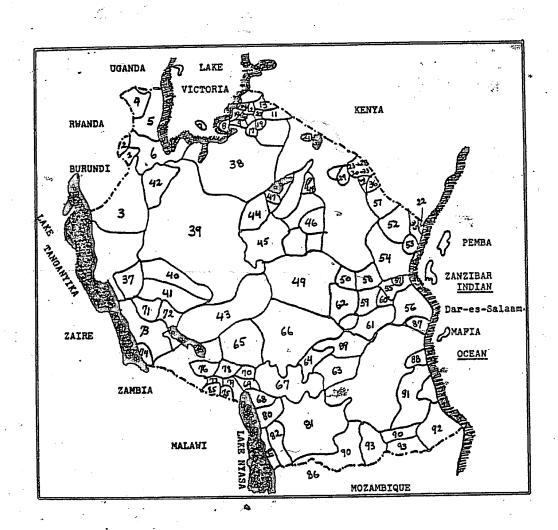
LANGUAGE NUMBERS ASSIGNED IN THIS STUDY

FIGURE V

CHAPTER IV--METHODOLOGY

There have been a number of works published on
the various languages we are concerned with here, as well
as several classifications of the eastern Bantu languages.
However, the previous work, with the exception of that of
Malcolm Guthrie, has not been based on rigorous linguis-
tic principles. Most of the previous work was done by
Germans, usually missionaries, whose works were methodo-
logically primitive and consisted mainly of collections
of words and lists of idioms. All of these are document-
ed by Clement Doke in his book, Bantu: Modern Grammati-
cal, Phonetical, and Lexicographical Studies since 1860
(London, 1967) and by W.H. Whiteley and A.E. Gutkind in
their edition entitled, A Linguistic Bibliography of East
Africa (Arusha, 1959). To facilitate matters, we have
reproduced here a list of many of those works which are
relevant to the languages we are analyzing in this paper[1]
(a list of the abbreviations used for denoting various
periodicals may be found in Appendix V).

BENA

J.T. Last provided a short vocabulary list for
the language in his Polyglotta Africana Orientalis (Lon-
don, 1885), and in 1900, R. von Sowa published "Skizze

der Grammatik des Ki-Bena (Ki-Hehe) in Deutsch-Ostafrika"
in ZAOS (Vol. V). Other studies of Bena include M. Prie-
busch's Bena-Hehe Grammatik (Berlin, n.d.) and C. Schu-
mann's article, "Der Musikalische Ton in der Benasprache"
(ZFK, Vol. VIII, 1917-18).

BONDEI

In 1882, H.W. Woodard's "Collections for a Hand-
book of the Boondei Language" was published in SPCK.
Bondei was also mentioned by Last in his 1885 Polyglotta
Africana Orientalis (London). This was followed in 1892
by G. Dale's Bondei Exercises (n.p.) and in 1900 by A.
Seidel's article, "Sprichwörter der Wa-Bondei," in Vol. V
of ZAOS. In 1906, C. Meinhof included Bondei in No. VIII
of his "Linguistische Studien in Ostafrika" in Vol. IX of
MSOS.

CHAGGA

There are several works covering the numerous
dialects of Chagga. Perhaps the earliest is D.v. Decken's
article, "Wörterverzeichnisse aus dem Ki-Dschagga und
Pare," published in ZAS, 1887. In 1895, A. Seidel con-
tributed a discussion of the Chagga language entitled,
"Uebersicht der Grammatischen Elemente des Ki-Chagga,"
which was published in ZAOS (Vol. I). In addition, a
Caga Grammar was written by O.F. Raum (n.p., n.d.).

Other references to the various Chagga dialects are to
be found under the specific dialect name.

DIGO

This language was first illustrated by J.L. Krapf
in his Vocabulary of Six East African Languages (n.p.,
1850). C. Meinhof later devoted eight pages to a discus-
sion of Digo in his "Linguistische Studien in Ostafrika"
(MSOS, Vol. VIII, 1905).

DOE

The only known contribution on this language is
an anonymous "Wortlisten Zentralafrikanischer Stämme" pub-
lished in Vol. VII of ZFK (1916-17).

FIPA

Both studies of Fipa have been provided by B.
Struck. He wrote the "Vocabulary of the Fipa Language"
as a supplement to JAS in 1908 and published "Die Fipa-
sprache, Deutsch-Ostafrika" in Anthropos., Vol. IX, 1911.

GOGO

Gogo was first mentioned in Last's Polyglotta
Africana Orientalis (London, 1885). G.J. Clark subse-
quently published his Vocabulary of the Chigogo Language
in 1887 (n.p.). H. Raddatz included Gogo in his 1892
study, Die Suahili-Sprache (n.p.), and in 1941, O.T.

Cordill published his short work, <u>Gogo Grammar, Exercises</u> (n.p.).

GWENO (Chagga)

In 1885, H.H. Johnston dealt with this Chagga dialect (as well as several other languages, including Pare), in "The Languages of the Kilimanjaro District," Chapter 10 of his <u>Kilimanjaro Expedition</u> (n.p.).

HA

P. Kollmann supplied a study of this language in his 1899 volume, <u>Victoria Nyanza (Vocabulary "Ha")</u> (London). J.V. Sammbeck contributed two undated works in manuscript form, a <u>Dictionary of KiHa</u> and <u>A Grammar of KiHa</u> (White Fathers, n.d.).

HAYA

There is a wealth of publications covering this languages. The earliest of these is A. Seidel's "Grundzüge der Grammatik der Sprache von Karagwe," published in Vol. IV of <u>ZAOS</u> in 1989. This was followed in 1904 by Herrmann's article, "Lusiba, die Sprache der Länder Kiziba, Bugabu, Kjamtwara, Kjanja, and Ihangiro," in Vol. VII of <u>MSOS</u>. H. Rehse provided the article, "Die Sprache der Baziba in Deutsche-Ostafrika," in Vol. III of <u>ZFK</u> (1912-13), as well as the study entitled, <u>Wörtersammlung</u>

des Ruziba ("Mitteilungen, Seminar für Kolonial Sprach-
en"), which appeared in 1914 (Hamburg). E.M. Kuijpers
wrote a Grammaire de la langue Haya in 1922 (Boxtel, Hol-
land). The anonymous study, "Proverbes et Coutes Haya,"
appeared in Vol's XXIII and XXIV of Anthropos. (1928-29).
P. Betbeder and J. Jones collaborated to produce a Hand-
book of the Haya Language in 1949 (n.p.). A description
of the Vocabulaire KiHaya, Kinyarwanda, Kigwe, was pub-
lished anonymously at White Fathers (n.d.). Further con-
tributions to the study of this language are: the Klein-
es RuHaya-Deutsche Wörterbuch by A. Meyer (Munich, n.d.),
as well as Rascher's Der Aufbau des Satzes im Luhaya
(Bethel Mission, n.d.) and his "Doppolgänger" im Luhaya
(Bethel Mission, n.d.), both of which are in manuscript
form.

HEHE

Hehe was included in J.T. Last's 1885 volume
Polyglotta Africana Orientalis (London). In 1899, C.
Velten wrote a paper entitled, "Die Sprache der Wahehe"
for Vol. II of MSOS. The article, "KiHehe-Worter-
Sammlung" was provided for the 1900 volume of MSOS (Vol.
III) by C. Spiss. O. Dempwolff analyzed "Das Verbum in
Hehe" in 1911, as the first article in his series of
studies, "Beiträge zur Vorbeschreibung der Hehe" (BA,

Bk. IV, 1913).

IRAMBA

The only documented studies of Iramba which are readily available have been provided by F. Johnson in articles published in the journal Bantu Studies: his "Notes on Kiniramba" appeared in Vol. II (1925); his contribution, "Kiniramba-English and English-Kiniramba Vocabulary" was included in Vol. II (1926); "Kiniramba Folk Tales" appeared in Vol. V (1931).

IRANGI

Last included a short list of Irangi words in his 1885 publication of Polyglotta Africana Orientalis (London). In 1988, A. Seidel supplied his "Grammatik der Sprache von Irangi" as an appendix to C.W. Werther's volume, Die mittleren Hochländer des nördlichen Deutsch Ost-Afrika (n.p.). O. Dempwolff described the phonetics and grammar of Irangi in his brief 1915 contribution, "Beiträge zur Kenntnis der Sprache in Deutsch-Ostafrika," which appeared in ZFKS, Vol. VI, No. 8.

JITA

Only a single publication is known for this language: Miss A. Werner, in 1927, supplied an exemplary study of Jita in her publication, "Specimens of East African Bantu Dialects" (B. St., Vol. III).

KAGURU

Kaguru was first mentioned in J.T. Last's <u>Polyglotta Africana Orientalis</u> (London, 1885). Last subsequently provided a detailed description and analysis of the language a year later, when he published his <u>Grammar of the Kaguru Language</u> (n.p., 1886).

KAMI

J.T. Last provided a brief illustration of Kami in his 1885 <u>Polyglotta Africana Orientalis</u> (London). A. Seidel covered Kami in his study, "Beiträge zur Kenntnis des Ki-Kami in Deutsch-Ostafrika," an article which appeared in Vol. II of <u>ZAOS</u> (1896). The most complete source of information on this language is found in C. Velten's doctoral thesis, "KiKami, die Sprache der Wakami in Deutsch-Ostafrika," which he produced in 1899 (<u>MSOS</u>, Vol. III, 1900).

KEREWE

In 1901, Schlobach published a study of Kerewe entitled, "Die Volksstämme der Deutschen Ostküste des Victorian Nyansa" in <u>MDS</u> (Vol. XIV). E. Hurel's article, "La langue kikerewe," which appeared in <u>MSOS</u> in 1909 (Vol. XII), provided an illustration of Kerewe.

KINGA

A single publication mentions this language--the

article entitled, "Grammatik der Kinga-Sprache," written by R. Wolff in 1905 for Vol. III of A. Stud. D. K. S.

KONONGO

R. Stern's 1906 article, "Eine Kinyamwezi-Grammatik," (MSOS, Vol. IX) was primarily concerned with grammatical forms from the Konongo dialect. In addition to this, A. Capus supplied a description of the Grammar of the Wakonongo Language (n.p., n.d.).

KURIA

The earliest study of Kuria was a phonetic analysis of Kulia published by O. Dempwolff in the ZFK under the series title of "Beiträge zur Kenntnis der Sprachen in Deutsch-Ostafrika" (No. 5 Kulia, Vol. V, 1914-15). This was followed in 1927 by a sample of the language which appeared in "Specimens of East African Bantu Dialects," authored by A. Werner (B. St., Vol. III). A. Sillery produced his "Notes for a Grammar of the Kuria Language" for Bantu Studies (Vol. X, 1936). The most recent study is W.H. Whiteley's analysis of The Structure of the Kuria Verbal and its position in the sentence, written in 1955 in manuscript form (n.p.).

KWAYA

A survey of the Kwaya language is provided in A. Sillery's "Sketch of the Kikwaya Language," found in Vol.

VI of <u>Bantu Studies</u> (1932).

MACHAME (Chagga)

In 1914, Julius Augustiny published a study of this dialect of Chagga entitled, "Kurzer Abriss des Madschamedialekts" in <u>ASDK</u> (Vol. XVI, Berlin). A much more recent study of this dialect is "A Tonal Analysis of the Disyllabic Noun in the Machame Dialect of Chagga" by A. E. Sharp (<u>BSO(A)S</u>, Vol. XVI, No. 1, 1954).

MAKONDE

Steere was the first to mention Makonde in his <u>Collections for a Handbook of the Makonde Language</u> in 1876 (Zanzibar). J.T. Last supplied a wordlist for Makonde in his 1885 <u>Polyglotta Africana Orientalis</u> (London). C. Schumann contributed an article entitled, "Grundriss einer Grammatik der Kondesprache" to <u>MSOS</u> in 1899. Another study of Makonde published in <u>MSOS</u> was A. Lorenz's 1914 article, "Entwurf einer Kimakonde Grammatik" (Vol. XVII). The latest study is an article by F. Johnson, "Notes on Kimakonde," published in a 1922-23 issue of <u>BSO(A)S</u> (Vol's II and III).

MAKUA

Chauncy Maples published his <u>Collections for a Handbook of the Makua Language</u> in 1879 (n.p.). In

addition, Makua was mentioned by J.T. Last in his <u>Poly-glotta Africana Orientalis</u> (London, 1885). D.J. Rankin's work, <u>Arab Tales Translated from the Swahili Language into the Tugulu Dialect of the Makua Language together with Comparative Vocabularies of Five Dialects of the Makua Language</u> appeared just a year later (<u>SPCK</u>, 1886). A. Carvalho-Soveral later published a short study of the language entitled, <u>Breve estudo sobre a ilha de Moçambique acompanhado d'um pequeno vocabulario Portuguez-Macua</u> (n.p., 1887). Mention of Makua was also included in H.H. Johnston's book, <u>British Central Africa</u>, which appeared in 1897 (n.p.). A. Werner contributed the article, "A Vocabulary of the Lomwe Dialect of Makua (Mozambique)" to the 1901 edition of <u>JAS</u> (Vol. I). <u>Vocabulário</u>, published by Cabral in 1924, included Makua (n.p.). H.W. Woodward provided "An Outline of Makua Grammar" for publication in <u>Bantu Studies</u> (Vol. II, 1926) and subsequently contributed a collection of "Makua Tales" (<u>Bantu Studies</u>, Mar. 1932), as well as <u>Makua-English and English-Imakuani</u> vocabularies, in manuscript form (n.p., n.d.).

MATENGO

J. Haflinger provided a study of this language in his article, "Kimatengo-Wörterbuch," which he published in <u>MSOS</u> (Vol. XII, 1909).

MATUMBI

Both known articles on this language have been provided by Bernhard Krumm: "Grundriss einer Grammatik des Kimatumbi" was published in MSOS in 1912 (Vol. XV), and "Kimatumbi-Wörterverzeichnis" also appeared in MSOS, the following year (Vol. XVI, 1913).

MBUGWE

O. Baumann wrote Durch Masailand zur Nilquelle as early as 1894 (Berlin), and in 1915 O. Dempwolff wrote "Beiträge zur Kenntnis der Sprachen in Deutsch-Ostafrika," published in ZFK (No. 7 Bugwe, Vol. VI, 1915-16). The most recent description of Mbugwe is R.F. Gray's work, A short word-list and grammatical sketch, a manuscript written in 1951.

MERU (Chagga)

This Chagga dialect was covered in H.H. Johnston's 1885 study, Kilimanjaro Expedition (n.p.).

MOSHI (Chagga)

K. Walther provided the earliest study of this Chagga dialect, an article entitled, "Beiträge zur Kenntnis des Moshi-Dialekts des Ki-Chagga," which appeared in ZAOS (Vol. V, 1901). In 1909, J. Raum published his contribution, a monograph entitled, "Versuch einer Grammatik der Dschaggasprache (Moshi-Dialekt)," in Vol. XI of

A. Stud. D. K. S.

MWERA

R. von Sowa wrote, "Skizze der Grammatik des Ki-Mwera in Deutsch Ostafrika" in Vol. II of ZAOS (1896). L. Harries described "Some Riddles of the Mwera People" in Vol. VI of A. St. (No. 1, 1947) and later published a Grammar of Mwera (n.p., 1950).

NYAKYUSA

C. Schumann published his article, "Grundriss einer Grammatik der Kondesprache" in MSOS in 1899 (Vol. II). A year later, K. Endemann contributed a short discussion of Nyakyusa, "Zur Erklärung einer eigenthümlichen Verbalform in Konde" to MSOS (Vol. III) (according to C.M. Doke, Nyakyusa is the common name for Nkonde). C. Meinhof later described the sound system of the language in his Introduction to the Phonology of the Bantu Languages (Berlin, 1932).

EASTERN NYANJA

M.E. Woodward published a Vocabulary of English-Chinyanja and Chinyanja-English as spoken at Likoma in 1892 (n.p.) and later published a Chi-Nyanja Exercise Book in 1898 (n.p.). Working with Miss Woodward's materials, B.H. Barnes produced a volume of Nyanja-English Vocabulary in 1902 (n.p.) and English-Nyanja Vocabulary

in 1913 (n.p.).

NYANYEMBE

Nyanyembe is the subject of E. Steere's <u>Collections</u>
<u>for a Handbook of the Nyamwezi Language as Spoken at</u>
<u>Unyanyembe</u>, which includes a grammatical outline and
lengthy word lists (n.p., 1882). In 1901, C. Velten
wrote and published <u>Grammatik des Kinyamŭesi</u>, which dealt
primarily with Nyanyembe. F. Dahl supplied an article
on "Die Töne und Akzente in Kinamwezi" for <u>MSOS</u> in 1904
(Vol. VII).

NYATURU

W. Schregel wrote a brief grammatical survey of
Nyaturu entitled, "Abriss einer Grammatik der Kinyaturu-
Sprache," which appeared in <u>MSOS</u> (Vol. XVI, 1913).

PANGWA

M. Klamroth supplied a brief phonetic survey which
he published in <u>MSOS</u> (Vol. VI, 1907) under the title,
"Kurze Skizze der Lautlehre des Kipangwa."

PARE

H.H. Johnston first mentioned this group of dia-
lects in his book, <u>Kilimanjaro Expedition</u> (n.p., 1885).
D. v. Decken subsequently published an article on Pare in
<u>ZAS</u> (1887) which he entitled, "Worterverzeichnisse aus

dem Ki-Dschagga und Pare." The Reverend A. Lewis wrote a number of Notes on Pare Grammar in 1955, which is still in manuscript form (n.p.).

POGORO

There are two articles on this language, both of which are entitled, "Die Sprache der Wapogoro": one was written by G. Reimer in 1907 (Berlin); the other, also published in 1907, was by P.J. Hendel (A. Stud. D. K. S., Vol. VI).

RUGURU/LUGURU

In 1898, A. Seidel contributed "Grundriss der Wa-Ruguru Sprache" as an appendix to C.W. Werther's Die mittleren Hochländer des nördlichen Deutsch-Ostafrika (n.p.). J.S. Harris provided a Grammar and Vocabulary of the language (n.p., n.d.).

SAFWA

E. Koontz-Kretschmer published his "Safwa and Nyixa Texte in kleinen Erzählungen und Briefen" (ZFE, Vol. XXIV, n.d.). A later publication in ZES was P. Berger's "Die mit B-ile gebildeten Perfektstämme in den Bantu-Sprachen" (Vol. XXVIII, 1937-38).

SHAMBALA

In 1867, E. Steere published his Collections for a

Handbook of the Shambala Language (n.p.,,1867). In 1895,
A. Seidel made two contributions to the study of Shambala:
his article, "Beiträge zur Kenntnis der Shambalasprache
in Usambara," published in ZAOS (Vol. I), and a monograph
entitled Handbuch der Shambala-Sprache in Usambara,
Deutsch-Ostafrika (n.p.) M.E. Horner's book, Kleine
Leitfäden zur Erlernung des Kishammbala, appeared in 1900
(n.p.). Meinhof also dealt with Shambala in his series
of articles, "Linguistische Studien in Ostafrika" (No. II,
Vol. VII, 1904). H.W. Woodward published a second, re-
vised edition of Steere's Collections for a Handbook of
the Shambala Language in 1905 (n.p.). Karl Roehl sup-
plied an article on the subject to the 1911 volume of
AHKI, his "Versuch einer systematischen Grammatischen der
Schambalasprache" (Hamburg Kolonialinstitute, Vo. II).
Two publications on the language appeared in 1912:
"Shambala-Grammatik," written by Frau Missionar O. Rösler
and published in Vol. XIII of A. Stud. D. K. S., and Franz
Gleiss' "Wörterbuch," also published in Vol. XIII of A.-
Stud. D. K. S. A more recent article is F. Lang Hein-
rich's "Shambala-Wörterbuch," which appeared in Vol.
XXXIII of the AHKI (1921).

SIHA (Chagga)

In 1905, H. A. Fokken contributed "Das Kisiha,"
a phonological study based on the Meinhof pattern, which

was published in MSOS (Vol. VIII).

SUKUMA

A. Seidel provided a grammatical sketch along with vocabulary list for Sukuma in his work, Das Sukuma, published in 1894 (n.p.). In 1898, C. Herrmann published his article, "Kissukũma," in MSOS (Vol. I). Sukuma is also discussed by C. Meinhof in his "Linguistische Studien in Ostafrika," as No. IV in the series (MSOS, Vol. VII, 1904). In 1929, J. Augustiny wrote his dissertation entitled, "Laut-und Formenlehre der Sukuma-Sprache," which was published in the MSOS (Vol. XXXII).

SUMBWA

There are two articles by A. Capus on this language: his "Grammaire de Shi-Sumbwa," published in an 1898 edition of ZAOS (Vol. IV), and his more lengthy volume, Dictionnaire Shi-Sumbwa-Français (n.p., 1901).

SUTU

Discussion of Sutu was included in C. Spiss' article written in 1904, entitled, "Kingoni und Kisutu," which he published in MSOS (Vol. VII).

TAITA

In 1885, A. Downes Shaw published a Pocket Vocabulary of East African Languages (n.p.); Taita was one of

the four languages dealt with in this edition. In 1894, J.A. Wray published an overview of the language which he called an Elementary Introduction to the Taita Language (n.p.). A Vocabulary of French-Swahili-Taita was published by Father Hémery in 1901. A short vocabulary of Taita was subsequently provided by H.R. Tate in the Journal of the Anthropological Institute (1904). In 1913, H.W. Woodward contributed the article, "KiTaita or Kisighau 'as spoken on the Shambala hills above Bwiti'" to ZFKS (Band IV, Heft 2).

YAO

There are a number of studies of this language. H.H. Johnston recorded "A Vocabulary of the Yao Language," under the language name Muntu, an article available in Koelle's Polyglotta Africana (n.p., n.d.). Other vocabularies of Yao that have appeared are those of Hale (1846), Krapf (1850), Koelle (1854), and Bleek (1856). J.T. Last also covered Yao in his 1885 volume, Polyglotta Africana Orientalis (London). E. Steere published his Collections for a Handbook of the Yao Language in 1871 (n.p.), and in 1888, C. Maples published a Yao-English Vocabulary (n.p.). A. Hetherwick supplied an Introductory Handbook and Vocabulary of the Yao Language in 1889 (n.p.; 2nd edition--n.p., 1902), and in 1894, R.S. Hynde

produced a <u>Second Yao-English Primer</u> (n.p.). Pedro Du-
peyron published his work on the language, <u>Pequeno Vade-
mecum da Lingua Bantu na Provincia de Mocambique ou Breve
Estudo da Lingua Chi-Yao ou Adjaua</u> in 1900 (n.p.). In
1908, C. Meinhof produced a phonological and grammatical
survey of Yao for his series, "Linguistische Studien in
Ostafrika," which appeared in <u>MSOS</u> (Vol. XI). Later stu-
dies are Meredith Sanderson's 1916 <u>A Yao Grammar</u> (n.p.)
and his Notes on "Chikala cha Wayao", published in 1920
(n.p.).

ZANAKI

Zanaki was briefly described among the languages
covered in A. Werner's "Specimens of East African Bantu
Dialects," a study which appeared in <u>B. St.</u> (Vol. III,
1927).

ZARAMO

The earliest publication on this language is E.
Steere's <u>Short Specimens of the Vocabularies of three Un-
published African Languages</u>, which appeared in <u>ZAOS</u> in
1869. This was followed in 1897 by "Beiträge zur Kennt-
nis des Kizaramo," written by Maass and A. Seidel and
also published in <u>ZAOS</u> (Vol. III). A. Worms subsequently
provided his two articles on the subject: "Grundrüge
der Grammatik des Kizaramo" (<u>ZAOS</u>, Vol. III, 1897) and

"Wörterverzeichnis der Sprache von Uzaramo" (ZAOS, Vol.
IV, 1898). Meinhof gave a resumé of the features of this
language in his MSOS series No. XII Dzalamo, included in
his "Linguistische Studien in Ostafrika" (Vol. X, 1907).
In 1912, Dempwolff wrote a short article on the phonetics
of Zaramo entitled, "Eine lautliche Sonderheit des Dza-
lamo," which was published in ZFKS (Vol. II).

ZIGULA

Zigula was first mentioned in 1878, in H.M. Stan-
ley's Through the Dark Continent (n.p.). Then, in 1885,
J.T. Last included a description of Zigulu in his Poly-
glotta Africana Orientalis (London). W.H. Kisbey pro-
duced Zigula Exercises in 1896 (n.p.; 2nd edition—n.p.,
1906) and later published a Zigula-English and English-
Zigula Dictionary in 1906 (n.p.). H. W. Woodward pub-
lished his study, Collections for a Handbook of the Zi-
gula Language, in 1902 (n.p.).

The data used in this work are derived from mater-
ials collected in Tanzania in 1970 by Dr. E.C. Polomé,
under the auspices of the Survey of Language Use and
Language Teaching in Tanzania sponsored by the Ford Foun-
dation and the University of East Africa. The responses
of informants to a questionnaire of seventy-five senten-
ces in Swahili have been used. This questionnaire was

devised by Dr. Dorothy Lehmann, Head of the African Language Institute at the University of Zambia, Lusaka. It is based on a revision of the two-hundred word Swadesh list but presents the lexical items within an acultural context describing daily activities. The questionnaire was designed in this fashion in order to prompt unbiased responses. This is perhaps best illustrated by the questionnaire itself, which is reproduced in Appendix IV. The other main source of information is a list of one thousand words designed by Dr. E.C. Polomé to be used in the collection of comparative materials for the classification of the Bantu languages of Tanzania and for the study of the mutual relationships of these languages, as well as their close kinship with Swahili. The words for this list were chosen on the basis of Proto-Bantu roots reconstructed by Guthrie, Johnston, Meinhof, and other scholars.[2] Although certain concepts are sometimes expressed in Swahili by terms of Arabic origin, they are definitely represented by Bantu stems in related languages.[3] Since we are using the morpho-geographical approach, as described in the Introduction, for this classification, no efforts were made at this time to cover the main syntactic structures of any language or to

survey its morphology beyond finding the roots; for this reason, no records were kept of concords in the class system or of verbal inflections and derivations.

Let us now look at a step-by-step description of what was done in order to obtain our classification.

First, the Lehmann questionnaire was divided into more than three hundred different words which were analyzed for lexical correspondences with Swahili reference items. From these three hundred words a set of one hundred and five sample words was chosen to determine language relationships (see Appendix III). This sample included words of everyday usage, such as numerals, conjunctions, and basic terms (e.g. head, hair, bird, fish, etc.). The lexical items which, in the ninety-three languages and dialects available to us, correspond to Swahili terms, were displayed in a comparative table. The lexical items were then regrouped according to their genetic relationship; where possible, the Proto-Bantu proto-type was indicated. This procedure will be described in detail below.

The next step was to compare the lexical items for structural similarities and check them for usage on a geographical basis. During the analysis it was noticed that a large number of Swahili terms were used by certain informants, so large a number that the informants'

responses probably did not accurately represent the lexicons of their respective languages. At this point in the analysis, i.e. prior to checking for Proto-Bantu proto-type correspondences, we checked every possible word and its variations against the thousand-word list. The reason for this reduplication of effort was to obtain a more accurate account of the lexicography of the language. Furthermore, we felt that often the informant might have been influenced by the context, the availability of a Swahili word, the length of the questionnaire, and time pressure. We therefore decided that by looking at each word in isolation, these affecting factors not being present, we might be able to find the native term or terms for each language.

As mentioned above, we neglected to record or analyze the concords; there are two reasons for this deliberate decision: (1) the questionnaire did not provide adequate information for one to make a thorough investigation of the concord system in the various languages; (2) since, in the actual analysis of the words, we are concerned only with the "stem" or "root" of the words, we disregarded the concord variations in the various dialects and languages as long as these concord variations did not change the meaning of the root (e.g. Swa. wa-/ m-tu, "men/man" [+human, +animate] but vi-/ki-tu,

"things/thing" [-human, -animate]. Here the concord variation is important, but in various dialects of Chagga the root -ite "dog" has different concords which do not change the meaning of the root: in Rombo and Masama the form is ma-/∅-kite; in Kilema, Vunjo, Marangu, Kibosho, Mwika, and Uru, it is shi-/ki-ite; in Old Moshi, shite; and in Machame, fi-/ki-ite.

The next step was to check for a Proto-Bantu prototype correspondence; this was done for each and every root used in the classification, regardless of the number of roots we had for a given Swahili word. The Proto-Bantu roots were then verified with Guthrie's, Meinhof's, and Meeussen's lists. The forms were further checked according to phonological changes of the forms as described by Guthrie and by the phonological laws of Bantu, as described by Dahl, Ganda, etc. In the case of a root that did not reflect a documented Proto-Bantu form but had a definite pattern to it and occurred frequently enough to justify our reconstruction of the most plausible prototype, we reconstructed a form according to the CVC base, which we labelled "RF" ("referential form"). An example of this type of reconstruction is RF KANDE for "food", which also has a Proto-Bantu form cs 554 PB *díó. In cases where the underlying vowel or consonant could not be properly identified, we used the symbols "C" or "V",

e.g. the RF (V)SA for unguza.. Finally, if the word was
obviously a borrowing from Swahili and was not traceable
to a Proto-Bantu proto-type, we labelled such roots "LW"
for "loanword". This class of roots will be illustrated
further in the chapter on borrowing.

The following step was the mapping of the roots,
in the Proto-Bantu, the RF, or the LW format, onto the
map of Tanzania, thereby creating the isoglosses which
are the source of our classification of the ninety-three
languages and dialects.

These are the major steps that were followed in
order to arrive at the actual classification. We would
now like to point out a few observations that were made
during the analysis but that we could not develop past
the observation stage due to a time problem. These ob-
servations are:

A. Most of the languages that we investigated have
kept the Proto-Bantu concept of only one word to convey
the ideas of "want", "love/like", and "need". These con-
cepts have developed into three different words in Swa-
hili--taka, penda, and hitaji, respectively. In the
southern languages, one finds the beginning of these in-
novations: there is now a single word for "love/like",
normally, the Proto-Bantu form (cs 1220 PB *kund- for
penda) and another word which expresses both "want" and

"need" (cs 1788 PB *tónd for <u>taka</u> and <u>hitaji</u>).

B. Some languages have no particular words for concepts such as "hunter", "fisherman", and so on. Instead, they use a phrase to describe the action: e.g. the phrases <u>wawahe makunga</u>, "he kills fish," to represent the concept "fisherman" and <u>apedha etiangi</u>, "he kills animals," to represent the concept "hunter".

C. In many languages the words for "face" and "eye" are the same. For example, the word for "eye" is normally -<u>maso</u>, -<u>manso</u>, or -<u>minso</u> in a number of languages; in these same languages, the word for "face" is also typically -<u>maso</u>, -<u>manso</u>, or -<u>minso</u>, respectively.

D. In many languages the words for "meat" and "animal", which are distinguished only by concordial variation in Swahili, are usually represented by two distinct roots. Thus, in Swahili the word for "meat/meats" is <u>nyama</u>/<u>nyama</u>, while the word for "animal/animals" is <u>m</u>-/<u>wa</u>-<u>nyama</u>. In numerous other languages, the word for "meat" remains <u>nyama</u>, while the word for "animal" is -<u>tyanyi</u>, -<u>dimu</u>, or -<u>kanu</u>.

FOOTNOTES

1. Additional publications are listed in the cited reference books. However, many of these are quite limited in availability, some restricted to mission archives.

2. The following are references for reconstructions used in this study:

   Guthrie, Malcolm. The Classification of the Bantu Languages III and IV: A Catalogue of Common Bantu with Commentary. (London: Oxford University Press, 1948).

   Johnston, Sir Harry H. A Comparative Study of the Bantu and Semi-Bantu Languages, Vol's I and II. (Oxford: The Clarendon Press, 1919 and 1922).

   Meeussen, A.E. Bantu Lexical Reconstructions. (Tervuren: Museum of Central Africa, 1969).

   Meinhof, Carl and N. van Warmelo. Introduction to the Phonology of the Bantu Languages. (Berlin: Dietrich Reimer, 1932).

3. A good example of this is the word for "blood" in Swahili. Even though there are three Proto-Bantu forms to express the concept (cs 1897 PB *yàdí, cs 766 PB *gàdí, and cs 2081 PB *nyingà), Swahili uses the word "damu", which is derived from Arabic dam, to express the concept of "blood".

CHAPTER V--DATA AND ANALYSIS

We first would like to describe the format of this chapter. The main body of data used for the comparison is presented here in the form of a chart. The Swahili-lexical item is entered first, followed by the underlying form, i.e. either PB, RF, or LW, with its source --Guthrie, with common stock (cs) and partial stock (ps) numbers indicated, or Meeussen, with his sources indicated (e.g. Meeussen Dempwolff). The last column indicates the numbers for the languages we analyzed for a particular lexical item and is numbered according to the order of Guthrie's zones and numbers (see Appendix I).

It must be noted that different words for certain Swahili terms are used in the same language, due to our having several informants for each language; these informants may not always have used the same words--they may have resorted to the use of various synonyms or may simply have copied the Swahili term.

SWAHILI	UNDERLYING FORM AND SOURCE[1]	LANGUAGE NO.
ISHI.	cs 2053 PB*yĭkàd/kàd	4--12, 14--20, 22--34, 36, 38 --46, 48--54, 56--67, 70--

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SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
		74, 76--79, 85, 86, 92, 93
	RF TAMA	68, 69, 80--84, 87, 88, 90, 91
	RF WUMI∼BUMI	49, 62, 65, 66, 69, 80, 85
	RF PANGA	38--40, 43--45, 47
	RF KONA	81, 82, 84
	RF GIMA	54, 59, 60, 61
	Locative Particles HO∼PO	1--3, 5, 6, 10, 15--19, 21, 24, 25, 29, 32--34, 38, 42, 51, 71, 72, 77, 79, 93
	RF MENYA	11, 12, 18
	LW ISHI	24, 25, 32, 35, 50, 51, 55, 63, 88, 92
USIKU	cs 634 PB*do	4--7, 23--28, 30--35, 49--62, 64--70, 79 --84, 87--92

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
	cs 1751 PB*tíkù	11--13, 15--22, 35, 38, 43 --48, 57, 71--78, 81, 85, 86,
	cs 1864 PB*túkù	37, 39--41
	RF NGETA	8--10
	RF IJORO	1--3, 72
SIKIA	cs 1589 PB*púd	4--7, 14, 37, 40, 49, 50, 55, 56, 59--62, 66
	cs 1589a PB*púdik-	41, 57, 65, 67 --72, 75, 83, 85
	cs 2043 PB*yìgu	8--13, 15--21, 25, 27, 28, 31 --34, 38, 39, 41, 42, 44, 45, 47, 73, 74, 76, 78, 82, 87, 88 93
	cs 2154 PB*yúgu (when preceded by yo-, yu-)	77, 80, 84
	RF PILIKE	79, 81, 90--92

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
	RF VA(D)	1--3, 46, 58, 86
	LW SIKIA	44, 51, 53
	SIK-IL-IL-A 　　1　2	22, 35, 36, 73
	(1) applicative	
	(2) causative	
IMBA	cs 2009 PB*yímb	1--3, 7--10, 14--17, 19, 22--27, 29--35, 37--56, 58--72, 75--92
	cs 147 PB*bín	1, 4, 6, 11, 13, 18, 28, 29, 33, 35, 57
	kibora < *bud "tell"	36
	RF LUNDA	73, 74
	RF RANGA	12
MOTO (hot)	cs 1510 PB*púì	11, 15, 16, 18, 19, 44, 45, 47, 48, 62, 64--70, 75, 78, 82, 83, 87--90
	(cs 1562 PB* pi "become hot")[2]	
	cs 2138 PB*yótò	13, 17, 20, 22

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
		25--28, 31, 32, 35, 40, 46, 50, 53--61, 63, 68, 73, 75--78, 80 -- 84, 86--89, 91--93
	cs 565 PB*dìdò	2, 12, 15, 37, 71, 85
	RF BIRA	8--10
	RF SHUSHE	1--3
WANAUME	PB*goci[3]	17, 37--42, 44, 45, 47, 50--54, 58, 65--70, 80, 81, 83
	cs 697 PB*dúmè (also ps 193 dúmì)	8--10, 21--25, 29, 30, 32, 34 --36, 46, 48, 49, 51, 55, 57, 60, 62, 64, 74, 76--78, 82, 87 --90, 92
	RF SORO	25, 27, 28, 31 --33

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE. NO.
	RF ŠAŽA	4--7
	RF ABA-GABOGABO	1--3
	RF ONSI	71--73
NYUMBA	cs 946 PB*jó	5, 6, 9, 38, 59
	(cs 2167 yùmbá "room" ((cs 2168 yùmbá "house"	8, 10, 15, 16, 18, 22, 29, 35, 37--43, 47--50, 52--55, 58, 63, 66-71, 75--93
	(cs 780 PB*gàndá "village." (("chief enclosure" ((cs 781 PB*gàndá "house"	61, 72--74
	RF KA	7, 8, 17, 20, 23--27, 29--34, 41, 49, 51, 57, 65, 67, 88, 89, 91
	Locative Particle MW-	11, 21, 93
	" KW-	46
	RF MUNZU	1--3
MOSHI	PB*jika (< Meeussen 1.3 (N.E.))	4--7

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
	cs 2114 PB*yókì	1--3, 11, 13, 16, 18--20, 22, 24, 25, 29, 31, 34, 36, 38, 39, 41, 43--45, 47 --51, 54--70, 75, 76, 78-- 85, 89, 90
	cs 2158 PB*yúkì	46, 86
	ONSI < cs 2114 yókì (+nasal-ization)[4]	39--42, 71--74
	OI < cs 2114 yókì (s→∅)[4]	87, 88, 91, 92
	RF SU	23, 24, 26--31, 33
	RF INGESI	10, 12
MOTO (fire)	cs 2138 PB*yótò	11, 13, 17, 18, 20, 22--36, 38 --41, 43--45, 47--70, 72--84, 86--93
	cs 565 PB*dido	1--10, 14--16, 19, 37, 42, 71, 72, 75, 85

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
PENDA	cs 1974 PB*yènd-	4--10, 15, 16, 22, 46, 49, 50, 55, 57, 66, 87, 88, 90
	cs 1220 PB*kúnda	1--5, 21, 23-- 34, 36, 51--53, 73, 86
	cs 655 PB*dònd	35, 55--57, 59 --61, 68, 69, 80
	cs 312a PB*cèkid "be pleased"	11, 13, 16, 19, 48
	cs 1875 PB* tứn "desire"	81, 93
	RF PALA	81, 82, 84, 88
	RF GANA	65, 70, 75, 79 --81, 83, 85
	RF SŪNGWA	58, 76--78
	RF NYONWA	41, 71, 72
	RF TOG	17, 38, 39, 42 --44
MAJI	PB*denga (< Meeussen < Homburger "be wet")	25--28, 31--34, 49, 62, 65--70
	cs 943 PB*jí[5]	1--20, 22, 35,

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
		36, 38--48, 50 --61, 63, 64, 72--93
	RF MUDA	24--26, 29, 30
TENGENEZA	(PB*tenda (< Meeussen "make" (< Meinhof, Homburger) (cs 1710 PB*tend- "act, do"	35, 45, 56, 57, 59--61, 63, 69, 70, 79, 84, 85, 87, 92
	RF DUMBA	3, 9, 23--25, 30--32, 38, 42, 44--46, 48, 49, 54, 57--60, 62, 63
	RF BUMB-	10, 67, 68, 70, 71, 73, 75, 76, 78--80, 82--84, 87, 92
	RF KOD-	2, 4--8, 11-- 13, 15, 16, 18 --20, 50, 52, 53, 89
	RF SONGOS	23--28, 30--34
	RF BED-	8, 17, 38, 39

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
		42, 44, 76, 77,
	LW TENGENEZA	22, 24, 25, 32,
		33, 35, 37, 55,
		59, 64, 69, 73,
		77, 80--83, 88,
		89, 92, 93
KARANGA	(cs 982 PB*kádaŋg "fry,	6--9, 11, 17,
	(roast"	19, 21--36, 38,
	(	
	(PB*kádaŋg (< Meeussen	39, 41--49, 51
	(	
	(< Meinhof "roast on coal")	--55, 58--61,
		69, 72, 87
	cs 961 PB* jùgú	14, 36, 56, 57,
		66, 87
	RF YOBA	1--5, 37, 40,
		41, 49, 50, 55,
		62, 71
	RF MANDE	10, 12, 15, 16,
		18, 20
	RF MALAVI	80, 82, 84, 89
	RF BALALA	65, 68, 72, 73,
		76--78, 86
	RF MASHABALA	69, 75, 79, 85
	RF NTE(N)SA	88, 90, 92, 93

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
	RF MANGOGO	65, 67, 70
TUNDA	(PB*tund- (< Meinhof "grow") ((cs 1840 PB*túnd "become full"	2, 3, 5, 11, 12, 14, 16, 19, 20, 22--33, 35 --37, 41, 43, 51--62, 65, 66, 68, 69, 71--77, 79--84, 87--90, 92, 93
	RF SUMO	3, 6, 11, 13, 16, 17, 38, 39, 42
PATA	(PB*pát (< Meinhof "seize") ((cs 1453 PB*pát "hold"	22, 24--26, 31 --34, 36, 41, 44, 46, 50--55, 58--70, 72--74, 76, 80--84, 86 --93
	RF BON-	4--11, 16, 19, 24, 26, 30, 57
	RF GAGA	75--77, 79, 85
	RF KOT	26, 28, 29, 33

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
KU-OZA	cs 153 PB*bòd "become rotten"	1--3, 8--10, 16, 17, 19, 22 --44, 46, 49, 51, 54--60, 62 --91
	cs 913 PB*gùnd	4--7, 11--15, 18, 20, 21, 48, 52, 53
TUMIA	cs 1831 PB*túm "send"	2, 21, 22, 24 -- 26, 29, 30, 32--42, 47, 49 --53, 55, 57, 59, 60, 66--70, 72, 73, 76, 80 --84, 86--92
	RF KOD	1--3, 5--8, 15, 16, 59, 61
	RF BOMB-	69, 75, 76, 79
	RF PANDUL-	65, 75, 85
	RF MENYE-	69, 70, 76, 77
SHOKA	cs 372 PB*còká	7, 8, 11, 13, 15, 16, 19, 21, 22, 27, 28,

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
		32--37, 44, 51 --53, 59--61, 90, 93
	cs 1408 PB*páca	8, 10, 14, 17, 38--42, 71--74
	cs 933 PB*jembè	85
	ps 6 PB*bagò "hoe"	69, 80--84, 87 --91
	RF HOYA	53, 54, 58, 59
	RF KYARA	23--26, 29, 30
	RF CEMU	57, 65, 70, 72, 76, 78
	RF CANGA	67, 75, 79, 86
KUNI	cs 1218 PB*kúni	22, 32, 35, 36, 52--54, 58, 86, 92, 93
	cs 1181 PB*kúi	1--20, 23--26, 28--34, 37--42, 44--47, 51, 71 --74, 76--78, 85
	cs 100a PB*káŋg "fry, roast"	82, 84, 87--89
	cs 980 PB*kádà "charcoal"	65, 67--70, 81,

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
		83
	RF BABU	75, 79, 80
	RF GODI	50, 55, 57, 59 --62
PANDE	cs 1436 pàndé	7, 22, 24, 25, 32, 33, 35, 37 --42, 45, 46, 50, 51, 53, 55, 58--64, 68, 72 --74, 76, 77, 79--84, 86--92
	cs 18 PB*bádà "spot, speckle"	6, 8--12, 15-- 19, 23--26, 31, 32, 34, 38, 43, 52, 56, 68--70, 76
MOJA	cs 1314 PB*mó	4--7, 17, 24, 25, 27, 30--33, 38, 39, 41, 48, 49, 63--65, 69, 70, 75, 78, 79, 82, 84, 85, 87 --92

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
	cs 1326 PB*múé	1--3, 11, 18, 19, 21, 36, 58
	cs 1327 PB*múí	5, 8, 9, 12, 13, 15, 16, 20, 23, 24, 26, 27, 29, 30, 32, 34, 37, 40--47, 51 --55, 59--61, 65--67, 71, 72
	cs 1316-1/2 PB*mòdí	86
	ps 343 PB*mócà	22, 57, 92
	ps 503 PB*yèká "only"	35, 58, 68
	cs 1570 PB*póógó[6]	68, 73, 74, 76 --78, 80, 81, 83--85, 93
TISA	cs 1039 PB*kènda	1--7, 9, 11-- 16, 18--20, 24, 26, 30--33, 36 --42, 46--55, 58, 72
	RF TANDATU	17, 21, 38, 51, 79
	LW TISA	22, 24, 25, 32,

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
		33, 35, 59--
		62, 64, 68, 70
		--73, 77, 80,
		81, 83, 84, 87
		--89, 91--93
	LW SITA (< TISA=metathesis)	57, 81, 82, 84
		86, 88, 90, 92
	(the idea of (5+4))	78, 82, 90, 93
PIKA	cs 1871 PB*tùmb	1, 3--5, 14
	cs 2089 PB*(yì)pík	22, 50, 53, 54,
		58--60, 63, 75,
		79, 85, 86
	cs 1701 PB*téék	2, 3, 6--10,
		12, 15, 16, 23,
		29, 36, 37, 39
		--43, 51, 52,
		71, 73
	cs 1696a PB*tédík	19, 49, 56, 57,
		59, 62, 64--70,
		74, 76, 77, 80
		--84, 87--92
	cs 734 PB*dúg "cook,	17, 38, 47, 48,
	boil".	72

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
	RF KOD-	24--30, 32--34
BIA	cs 649 PB*dògù	1--3
	cs 1901 PB*yàdúá	3--6, 8--12,
		15, 17, 18, 37,
		38, 40, 41, 70,
		72, 75--77, 79,
		85, 92
	RF IMBI	49, 63--69, 80
		--84, 87--89
	RF WARI	24--28, 31--33,
		59
	LW MPOMBE (Swahili)	53, 58
	LW BIA (English "beer")	6, 7, 11, 14,
		16, 18, 19, 21,
		24--26, 29--33,
		35, 36, 38, 39,
		42, 44, 47, 50
		--54, 56--59,
		61, 62, 65, 68
		--73, 79, 81,
		82, 84, 86--91,
		93
CHAKULA	cs 554 PB*dío	1, 3--10, 12,

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
		17--19, 21--25, 27, 31, 32, 35, 37--53, 57, 59 --61, 65, 66, 68, 70, 72--74, 76--78, 80, 81, 83, 84, 87--93
	cs 765 PB*gàdì "mush"	55, 56, 59, 62
	cs 367 PB*còdì "broth"	11
	RF KANDE	22, 35, 52--54, 58
	RF IFINDU	36, 69, 75, 79, 85
UJI	RF UJI	3, 5, 22, 24, 25, 28, 32, 33, 35, 36, 39, 46, 48, 51, 53, 55 --66, 68, 69, 71, 75, 78--82, 84, 88--93
	RF OMBA	6, 7, 17, 38, 40--42, 47
	RF MADIDA	23, 25, 29, 31, 32

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
	RF USARA	4, 5, 8, 9, 14 --16
	RF SULULU	1--3
	RF RUNGURI	11, 12, 18.
	RF NSWA	26, 27, 30, 32, 33
	RF BA(N)GA	65, 67, 69, 70, 76, 77
NUKIA	cs 1380 PB*nùuk	2, 5, 22, 35, 38, 50, 54, 59, 70, 75--79, 88, 93
	cs 1386 PB*nùŋk	5--7, 38--41, 44, 49, 52, 53, 55, 58, 60, 61, 63, 64, 66--68, 71--76, 78--92
	RF NYUNKA (probably a derived form of nùŋk)	11, 12, 15, 18, 37, 45--47, 91
	cs 743 PB*dùmbá	11, 20
	RF MOTA	1--3, 41
	RF (B)UNGO	28, 29, 34, 51
	RF DANGA	89, 13

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
	RF (C)UNA	14, 33, 47, 51
	RF FAMA	24--27, 30--33
LAINI	(cs 1139 PB*komb "scrape" ((PB*komb (< Meinhof "plane ((off"	4, 5
	ps 434 PB*tek	53, 57, 59, 60, 67, 69
	RF TONSU	73, 74, 76
	RF SUSE	23--29, 31--33, 51
	RF MASIMASI	2, 82, 87--89
	LW LAINI	22, 25, 29, 32, 35, 37, 40, 50, 51, 53, 55, 58, 61, 63, 64, 72, 76, 77, 80, 81, 84, 87--93
ZITO	(cs 631 PB*dito ((PB*dito (< Meeussen ((< Homburger)	7--22, 24--26, 28, 30, 32, 33, 35, 37, 38, 44, 45, 47--56, 59 --63, 65--69, 75, 79, 81, 84,

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
		87
	cs 527 PB*dem-ed-	1--3, 6, 22, 23, 26, 27, 29, 31, 32, 34, 36, 86, 93
	cs 1850 PB*tup "swell"	80--82, 84, 88 --92
	RF LIMWAMU	71, 73, 76--78
	RF TIMB	24, 25, 27, 31 --33, 39, 42, 43
	RF ZAMA	52, 53, 55, 60
WAVULANA	cs 697 PB*dúmè	21--27, 29, 30, 32, 33, 48, 62, 72, 73, 82
	RF DEMBA	63, 64, 87, 88
	RF BWANGA	51--55, 57, 58, 60
	RF SONGOLO	59, 64, 80, 81, 83, 84, 89
	RF SIGAZI	5--8
	RF GOSI	37, 40, 53, 59
	RF ZERERO	28, 33, 34, 49, 50

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
	RF ABAMURA	10, 12, 18, 19
	RF AVADIMI	65, 67- 70
	LW VIJANA (Swahili)	92
PIGA	cs 1182 PB*kúb-	1--3, 14, 23, 43--45, 47, 78, 88
	cs 1133 PB*kóm-	64, 75--77, 79, 85, 91
	cs 2160 PB*yùm[7]	8--10, 41, 48, 71--74
	cs 1770 PB*tòb	49, 50, 52--55, 57--62, 65--70, 80, 81, 83, 84, 89
	cs 1302 PB*mény	86
	(cs 182 PB*búd "break, ((smash" ((cs 183 PB*búd "hit"	36
	RF TEMA	11, 12, 18, 19
	RF TEDA	4--7
	RF WA	46, 93
	RF KAPA	24--27, 29--34
	LW PIGA	22, 35

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
FIMBO	cs 1551 PB*pimbò "stick"	8--11, 13, 15, 16, 18--20, 22, 24--26, 29, 30, 32, 33, 35, 55, 57--61, 64, 87 --92
	cs 1794 PB*tóngà "heavy stick"	80, 81, 83, 84
	RF NKONI	1--7
	RF DANGA	17, 38, 39, 41, 42, 45, 47
	RF BIKI	62, 63, 65, 67 --69, 89, 90
	RF NGVDV	14, 24, 32, 37, 38, 48, 52--54, 66, 75, 79
	RF NDISA	76--78
	RF NTUWA	72--74
ANGUKA	cs 863 PB*-gù-	1--21, 23, 24, 26, 28, 30, 33 --44, 46, 48-- 51, 53--62, 64 --67, 70--72,

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
		75--86, 89--91
	cs 1576 PB*pón	73, 74
	LW YANGUKA	92
CHEZA	cs 1064 PB*kínà	1--3, 63, 64, 67--69, 75, 79 --85
	cs 1065-1/2 PB*kínd	71--73
	cs 594 PB*-dián-	4--8, 42
	cs 148 PB*bínà	8, 9, 13, 60, 65
	cs 1936 PB*yáŋg	12, 15, 20, 44, 55, 57
	RF TEMA	23, 25, 26, 28, 31--33
	RF TAWANA	24--26, 29, 30
	RF DAWALA	49, 59
	RF SEGIGA	21, 34, 51, 53, 54, 58, 62, 66, 76, 78
	LW CHEZA	22, 51, 56
LALA	cs 851 PB*-gòn-	1, 12, 14, 43, 44, 49, 50, 53, 54, 60, 63--70,

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
		75, 78--91
	cs 455 PB*dáád-	2, 3, 12, 15,
		17, 18, 20, 21,
		23--42, 45--48
		52, 71--74, 79,
		92
	RF CYAMA	1--6
	RF HINDERA	16, 19
	RF MAMA	7--9
	RF WASA	56, 59, 61, 62,
		66
CHINI	cs 330 PB*cí	1--8, 10, 14--
		18, 22, 23, 26,
		28, 29, 37--45,
		47, 49--92
	cs 47 PB*bánd	25, 27, 31, 32
	RF SVMBA	24, 30, 33
ARDHI	cs 330 PB*cí	1--9, 13, 15--
		17, 19, 21, 29,
		38--49, 51, 52,
		54--59, 61--63,
		69--74, 76, 78,
		84, 89, 90
	cs 668 PB*dòŋgó	36, 37, 40, 41

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
		43, 54, 76, 77, 92
	cs 1797 PB*tòpè "mud"	76
	cs 639 PB*dòbá	14, 18, 20
	(cs 568 PB*dìm "cultivate"[8]	80--83
	(cs 569 PB*dìmà "hill"	
	ps 73 càŋà "soil"	29, 49, 50, 52, 53, 58, 68, 89, 90
	cs 1649 PB*tàkà	86, 91
	LW ARDHI	22, 32, 35, 51, 60, 84, 87
SANA	LW MUNO (Swahili mno)	4--10, 17, 21, 23, 24, 26, 28 --30, 32, 34, 38--45, 47--49, 51--54, 58, 59, 62, 66, 68, 82, 83, 87, 90
	LW SANA	15, 16, 22, 25, 31--33, 35--40, 46, 47, 49--51, 53, 58, 63--65, 69, 71, 72, 76,

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
		77, 80--84, 87 --93
	LW KABISA	25, 31, 32, 58
	LW KWELI	53, 62, 64
	RF CHANE	1--3
	RF NGANI	55--57, 59--61, 73--78
	RF BOKONGU	11, 12, 16, 18 --20
	RF DEN(Y)	23, 24, 26, 29, 30
SIMAMA	(cs 829 PB*gím-[9] (cs 2059 PB*yím-(id) (cs 2006 PB*yím	4--9, 11--16, 18--20, 28, 34, 35, 37--51, 54 --57, 59--62, 66--79, 85, 86, 92, 93
	cs 1968 PB*yém	65, 77, 80--84, 87, 88, 90, 91
	cs 843b PB*góduk-	24, 25, 27, 31, 32, 52, 53, 63, 64, 89
	RF SAD	23, 26, 29, 30

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
	RF HAGALALE	1--3
	LW SIMAMA	22
MSTARI	cs 664 PB*-dòngò	1--3, 21, 36
	LW MSTARI	5--9, 11, 13--16, 18, 19, 22, 24--35, 37--42, 44, 46, 50--63, 65, 66, 68--73, 76, 77, 80--84, 86--92
	RF CODODO	24, 43, 48, 51, 76, 92
	RF BAMBO	75, 76, 79, 85
	RF SAFWA	7, 10, 17, 53
KULIA	cs 555 PB*-díó[10]	1--9, 11--13, 15--22, 24, 27, 28, 30--33, 37--44, 47, 51, 53, 56, 59--61, 63--67, 69--77, 79--84, 87--92
	cs 697 PB*dúmè "male"[11]	34, 46, 48--55, 57--59, 62

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
	RF USHA	23--26, 29, 30
KUSHOTO	cs 1316 PB*mócó	1, 4--7, 17, 21, 24--33, 38 --41, 43, 45, 46, 50, 51, 53 --62, 72
	ps 344 PB*mócí	8, 9, 11--16, 18--20, 93
	ps 345 PB*móncó	48, 76--78
	cs 361 PB*-có	23, 37, 52
	LW KUSHOTO	22, 24, 30, 35, 51, 59, 63, 71, 81, 88, 89
	RF -IGI	64--69
	RF BANVU	1--3
HESABU	cs 9 PB*bàd-	4--11, 13--19, 38, 40, 43--50, 54, 58, 62, 65 --71, 73, 75, 79, 82, 87
	cs 1639 PB*tád-	21, 24, 25, 27 --29, 31--34, 36, 50--52

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
	(cs 1673 PB*táŋg "count"[12]	12, 74, 75, 80
	(	--86, 88--90,
	(cs 500 PB*dàŋg "teach"	92
	LW HESABU ($<$ Arabic)	22--25, 32, 33, 35, 37, 41, 53, 59, 63, 87
	RF PET-	42, 55--57, 60, 61
	RF -ZYA-	41, 72, 73, 76 --78
MAWE	cs 176 PB*bùè	1--3, 8, 9, 17, 19, 21, 23--30, 32, 33, 37--40, 43, 48--57, 59 --61, 63, 64, 75--77, 79, 82, 85, 87
	cs 867 PB*gùè	22, 32, 34, 35, 41, 44--47, 54, 58, 69, 70, 72 --74, 76, 78, 79, 88
	RF GANGA	62, 65--69, 80, 81, 83, 84, 89

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
		--92
	RF BADE	4, 5, 7, 14, 42
	RF GINA	10--12, 18
DOGO	cs 1023 PB*-ke	4--6, 12, 18, 20, 72
	PB*too(too) (< Meeussen < Homburger, Greenberg)	8--10, 14, 17, 24, 25, 31, 32, 34, 35, 38--40, 42, 43, 46, 49 --56, 58, 60-- 62, 64--67, 71, 73, 74, 76--78
	cs 1362 PB*niini	37, 44, 45
	RF DEBE	68--70, 81, 83
	RF DOKO	80, 82, 84, 89, 91
	RF MATOMATO	1--3, 41
	RF NANDI	75, 79, 85
	RF N(K)YWA	23, 26, 30
FAHAMU	cs 2001 PB*yiji	23--34
	cs 1284 PB*màn	4--7, 11--15, 17, 18, 20, 35, 37, 39--43, 46,

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
		47, 49--51, 54, 55, 58--61, 63 --65, 68--74, 76, 80--85, 88 --91
	cs 1301 (PB*mèni (PB*mèny	1--3, 8--10, 16, 19, 75, 77 --79
	cs 1672 PB*táŋg	57, 87, 88
	cs 968 PB*júb	22
MZEE	cs 1197 PB*-kúdù	14, 21, 37, 46, 48, 56, 59, 68 --73, 78, 81, 83, 86, 89
	(cs 20 PB*bádá (cs 1412 PB*pádá	6, 17, 38, 39, 42, 45, 47, 49
	LW MZEE	5, 22, 35, 40, 44, 50, 51, 53, 58, 59, 63, 65, 67, 76, 77, 81, 82, 84, 87, 89 --93
	RF MVKU[13]	23--28, 30--34

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
	RF MGOSI	34, 51
	RF DONGO	75, 80, 85
	RF NCHEYA	80, 81, 84
	RF KARUKA	8--11, 13, 15, 16
BARABARA	(cs 940 PB*-jìdà ((cs 941 PB*-jìdá	6, 12, 13, 18, 23, 24, 26, 29, 30, 33, 37, 40, 41, 43, 48, 54, 56, 57, 59, 64, 72, 74, 79, 83, 86, 89
	ps 169 PB*dìdà	71, 74, 78, 80 --82, 87, 88
	LW BARABARA	1--11, 15--19, 22--26, 29--36, 38, 39, 41--44, 46, 47, 49--53, 55, 58--61, 63, 65, 68, 70, 72, 73, 76--78, 80, 81, 88--93
	RF ÇANDV	5, 20, 45
	RF UNSEBO	69, 70, 73, 75,

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
		79, 85
KWENDA	cs 807 PB*gènd	1--6, 10, 12, 15, 16, 22--34, 36, 40, 45, 51 --54, 57, 58, 63, 64, 82, 87 --91
	cs 811 PB*gì	3, 12--14, 16, 20, 24, 27, 39
	cs 820 PB*gì	2, 7--9, 17-- 19, 37--42, 44, 45, 47, 48, 71, 73, 74, 85, 90
	cs 1536 PB*pít	43, 49, 52, 53, 55, 57, 58, 60, 62, 65, 66, 68, 72--74, 80, 86, 91, 92
	RF YANGA[14]	41, 71--74, 84
	RF BUKA	75, 79, 85
NYEMBAMBA	cs 1552a PB*pini-[15]	38, 39, 41, 43, 46, 49, 54, 58, 68, 75, 78, 79,

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
		86
	RF S$\underline{V}$S$\underline{V}$	4, 13, 16, 23 --33, 50--53, 55, 57, 60
	RF N(O)D$\underline{V}$	7, 8, 42, 59
	LW EMBAMBA ($<$ Swahili)	35, 37, 39, 41, 59, 61, 84, 87
	LW DEBE ($<$ Hindi)	80, 81, 83
	RF NYERERE	10, 11, 12, 16, 18, 65
	RF SEKELE	69, 70, 75, 79
TAKA	cs 1220 PB*kúnd	21, 23--28, 30 --33, 36
	(cs 256 PB*cák ((PB*taka ($<$ Meeussen 4.7)	1, 2, 44, 46 --49, 66, 67, 90
	cs 1974 PB*yènd	5--11, 15, 16, 19, 37, 48, 51, 88
	cs 1788 PB*tónd	4, 5, 35, 53, 55--57, 60, 61, 68--70, 73--75, 79, 80, 85
	cs 1875 PB*tún	11-13, 15, 18,

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
		20, 93
	RF CWANZA	76--78
	RF GANA	62, 70, 80, 81, 83
	RF PALA	81, 82, 84, 87, 88
HITAJI	cs 1220 PB*kúnd	23--28, 30--33, 52
	cs 1974 PB*yènd	6--11, 15, 16, 19, 26, 37, 51
	cs 1788 PB*tónd	5, 35, 53, 55 --57, 60, 61, 68--70, 73--75, 79, 80, 85
	cs 256 PB*càk	1, 2, 44--46, 48, 49, 65--67, 90
	cs 1875 PB*tún	11--13, 18, 20
	RF CWANZA	76, 78
	RF GANA	62, 80, 83
	RF PALA	81, 82, 84, 87, 88
KAMBA	cs 860 PB*gòyè	4--10, 12, 14,

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
		15, 17, 38, 39,
		41, 42, 52, 70,
		75, 79, 80, 82,
		84, 85, 89--91,
		93
	(cs 839 PB*gòdí	1--3, 27, 55,
	(cs 861 PB*gòyì	57, 63, 64, 81,
		83
	cs 613 PB*dígì (especially	44, 47, 50, 51,
	ps 175)	54, 58, 66, 67
	cs 1660 PB*tambo (possibly?)	73, 74
	LW KAMBA (< Arabic)	22, 24--26, 29,
		30, 32, 35, 36,
		53, 59, 60, 62,
		87, 88, 91, 92
	RF SIRI	11, 13, 16, 18
		--20
	RF KUSA	40, 43, 72, 73,
		76--78
REFU	cs 444 PB*-dà	5, 6, 8--10,
		42
	cs 507 PB*dè-	7, 14, 17, 32,
		37--39, 44, 47,
		59, 61

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
	cs 1645 PB*tádì	37, 39--41, 43, 49, 50, 52--58, 60--67, 69--81, 83, 85, 86, 89, 93
	cs 545 PB*dèèp (especially ps 164 PB*dèèpu) RF LASU	19, 21, 22, 35, 45, 90--92, 80, 82, 84, 87 88
	RF ASHA	23--34
(NI)ZIGO	cs 614 PB*dígò	1, 3, 5--8, 10 --12, 14, 16, 18--20, 22--26, 29, 30, 32--45, 47, 48, 51--67, 69--79, 81, 87, 88, 90--93
	cs 614 PB*dígù	80, 81, 83, 84, 89
	ps 337 PB*kúmbá	75, 79, 85, 88
	RF CINDV	15, 27, 49
MAGOME	(cs 1003 PB*kándà "skin" (PB*kanda (< Meeussen	11--18, 23--33, 36, 63, 69, 79

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
	(<Homburger)	
	PB*kamba (<Meeussen Meinhof "shell")	6, 37, 44, 47, 62, 75, 87, 91, 92
	LW GOME	35, 50-61, 84
	RF SUSU	4, 5, 7--9
	RF GULA	3, 38, 39, 41, 42, 71, 72, 82, 93
MTI	cs 1729 PB*-tí	1--34, 36--43, 45--49, 51--54, 58, 59, 63, 64, 71--74, 81, 93
	ps 387 PB*pìkì	49, 50, 55--57, 59--62, 65--70, 79, 81, 83
	RF KONGU	80, 82, 84, 87, 88, 91
EUSI	cs 2037 PB*yídù~yítù	26, 35, 36, 44, 47--51, 55--70, 75--79, 81--83, 85, 89
	cs 1561 PB*pìlpí	17, 37--40, 42,

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
		73, 74
	cs 2037 PB*yį́tų̀	73
	RF PILI	80, 84, 87, 88, 90
	RF LILABULA	1--3
	RF MWAMU	11--16, 18, 20
	RF DAGUD	4--7
	RF BU(U)	24, 28--33
	RF GYU	23--25, 27, 29, 32, 34
EUPE	cs 929 PB*jédù	46
	cs 1958 PB*yéd	1--7, 86, 90, 93
	cs 1966 PB*yédù	8--10, 14, 16, 35, 43--50, 53, 55-57, 59--62, 64, 66--68, 75 --79, 85
	ps 502 PB*yédù	65, 67--71
	RF -PE	3, 17, 38--43, 72
	RF RABU	11--13, 15, 18
	RF (L)WA	23, 26, 29, 30, 33, 34, 51

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
	LW EUPE	22, 53, 63, 87 --89
NDEGE	cs 522 PB*dègè	22--25, 29--34, 46, 49--62, 66 --69, 80, 81, 83
	cs 964 PB*jùnì	70, 75, 79, 82, 87, 90, 91
	cs 2170 PB*-yùnì	69, 84, 85, 87, 88
	ps 361 PB*nòní	1--3, 7, 17, 38, 39, 41, 42, 44, 71, 72
	cs 2121a PB*nyònì	4--6, 8--15, 18, 21, 36, 37, 40, 41, 45, 76, 78
	os 2170a PB*nyùnì	16, 19, 43, 47, 73, 74, 76
	cs 1374 PB*nùní	65, 73, 92, 93
	RF BONGU	63, 64, 89
ZIWA	cs 1934 PB*yànjá	2--6, 8, 9, 11, 13, 15--19, 38,

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
		39, 42, 65, 75, 80, 82, 83, 85, 86
	cs 603 PB*dɪbà	22, 24, 25, 32, 33, 35, 37, 41, 51--59, 63, 69, 76, 81, 84, 87, 89
	cs 943 PB*jɪ	3, 14, 47, 51, 80, 82, 93
	(cs 2040 PB*yɪ́jɪ̀ (cs 2041 PB*yɪ́gɪ̀	79
	cs 2079 PB*minzi	76
	LW BAHARI (< Arabic "sea")	76
	RF CAMBA	7, 39, 43, 45, 48, 49, 60
	RF CITANDA	87, 88, 90--92
RUKA	cs 889 PB*gùduk-	1--3, 6--9, 35, 37, 42, 49, 55 --57, 59--62, 64--67, 71--82, 87--92
	RF RUKA (< *(gù)duk-)[16]	22, 35, 40, 63,

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
		73, 74, 76, 80
	ps 43 PB*bùduk-	10, 11, 18, 28,
		36, 58, 75, 81,
		84, 85, 89
	RF BUDUDUK-[17]	12, 13, 15, 16,
		18--20, 40, 46,
		58, 69, 70, 79,
		86
	RF BULUMKA	41, 72
	RF ((C̲)A)DADA	4, 5, 17, 38,
		39, 48
	RF DUM	14, 24, 29, 30,
		43
VUNJA	cs 233 PB*bùnj-[18]	22, 25, 27, 31
	cs 230 PB*bùn	1--3, 8, 10--
		12, 14--16, 18,
		20, 40--43, 45,
		47, 54, 58, 71
		--74,
	cs 182 PB*bud	78
	RF BENA	49, 50, 55--57,
		59--63, 89
	RF DENYI	65--70, 80, 81,

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
		83
	RF DUMWILI	80, 82, 84
	RF TEMA	90--92
MKIA	cs 1053 PB*kídà	3--9, 13--16, 22, 29, 35, 37 --43, 47, 51-- 53, 55--57, 59, 61, 62, 64, 65, 68--70, 72, 80 --84, 86--92
	RF SUDI	10, 12, 16, 18 --20, 44, 49, 54, 66
	RF MULIZO	1--3
	RF KE CE	16, 20, 24, 37, 39, 40, 42, 44, 48, 54
	RF (CV)SINDA	71, 73, 75, 77
UWAWA	cs 6 PB*bàbá	1--5, 7--13, 15, 16, 18, 20, 22, 35--37, 40, 42, 46, 48--54, 56--61, 63, 68

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
	cs 1450 PB*pàpá	19, 67--69, 71, 80, 82, 84--92
	cs 1518 PB*pìkò	75--79
	RF NANA	6, 38, 39, 41, 43, 47, 72
	RF KV̱NGO	24, 25, 27, 28, 31--34
TEMBO	cs 951 PB*jògù	1--16, 18--21, 23--42, 44, 47, 51, 59, 71--75, 77--79, 85, 86
	cs 1708 PB*témbó	22, 24, 25, 35, 45, 49, 51--58, 60--62, 64, 66, 68, 70, 80--84, 87--92
	RF TEMBWE	65, 67--69
	cs 932 PB*jègù	46
	RF 'JUNGWA	65, 70
	RF PUDI	17, 38, 39
NGOZI	cs 837 PB*gòbì	22, 24, 25, 31 --35, 37, 44, 51, 52, 54--56, 60, 61, 63, 64,

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
		81, 82, 89
	cs 1451 PB*pápà	75, 79
	cs 874 PB*gùbò	75, 79
	cs 1003 PB*kándà	11, 58
	cs 1241 PB*kútò	51, 58
	RF KWELA	73--75, 85
	RF KWEMBE	65, 68--70, 76, 78, 89
	RF KUMBA	80--84
	RF RISERO	10, 12--15, 19, 20
	RF C̲INGO	35, 49, 50, 62, 67, 87, 88
	RF LUSATO	1--3
	RF NDERE	17, 38, 39, 42, 44, 45, 47
KUBWA	cs 1350 PB*nénè	1--3, 8--12, 13, 15, 18, 20, 21, 23, 24, 29, 30, 42, 48
	cs 1195 PB*kúdù	11, 16, 19, 37, 40--47, 50--64, 71--75, 85--88, 92

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
	ps 319 kúdùntu	80, 82, 84, 90 --92
	RF BAHA	35, 36, 49, 51, 65, 69, 70, 80, 81, 83
	RF GOMI	62, 65--68, 70, 89
	RF PANGO	4--7
	RF NGAN(Y)I	24--27, 30--32
SIKIO	cs 1813 PB*túí	1--20, 23--34, 37--50, 53--61, 64, 71--74, 76
	cs 1243 PB*kútù	65, 76--84, 87, 89, 91, 92
	cs 1801 PB*-tú	36, 46, 69, 93
	cs 2043 PB*yigu "hear"	90
	RF SIKIO (< verb sikia "to hear")	21, 22, 35, 51, 52, 59, 62, 66 --68, 86, 88, 91
NYAMA ("animal")	cs 1909 PB*yàmà	4--7, 22, 23, 26, 28, 30, 32 --37, 46, 51

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
		--65, 68, 71-- 75, 79--84, 86 --93
	cs 1126 PB*koko	1--3, 32, 66, 67
	RF KANU	65, 69, 70, 75, 76, 78, 85
	RF TYANYI	8--16, 18--21, 24
	RF DIMU	3, 17, 24, 38 --43, 49, 72
MSITU	cs 1765 PB*títù	24, 25, 29, 30, 34, 51--53, 61, 65, 67--70, 73 --77, 79, 80, 84, 86--93
	cs 15 PB*bàdà "garden"	4, 5, 7, 8, 10, 15, 20, 37
	cs 260 PB*càká	14, 16, 22, 30, 35, 48
	LW PORU (∠ Swahili ∠ Arabic)	38--41, 43, 56, 59, 72, 84
	LW ISHAMBA (∠ Swahili	1, 2

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
	< French (Mauritius))	
	RF MBAGO	49, 50, 54, 55
	RF KUNGU	3, 65, 67
MATE	cs 1629 PB*tá	21, 36, 79--84, 87--92
	cs 1690 PB*té	1--3, 11, 13, 15--20, 23--28, 30--34, 37--42, 44--47, 49--59, 61--66, 68, 70, 71, 75, 77, 78, 84, 87
	cs 1733 PB*tí	41, 65, 67--69, 72, 73, 76, 78
	RF FWEFU	8--10, 92
CHURA	cs 1032 PB*kédè	1--10, 12, 15, 16, 18, 20
	cs 2150 PB*yùdá	11, 13, 14, 19, 21, 22, 34--36, 39--43, 46, 48 --56, 58--65, 70--79, 84, 85, 87--92

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
	RF LINYOTO	68, 70, 80, 81, 83, 84
	RF DONGO	17, 38
KAVU	cs 975 PB*kad+u[19]	22, 25, 35, 47, 49, 51--53, 57 --59, 62, 65-- 68, 70, 72, 73, 75, 81
	cs 2161 PB*yúm[20]	5, 8, 17, 19, 23, 24, 26, 29 --33, 38, 51, 75, 78, 87, 88, 90
	RF -NU	27, 40, 42
	RF NSE	44, 59
BARIDI	(cs 1492 PB*pépò[21] ((ps 19 PB*bépò	1--16, 18, 19, 23, 25, 27, 28, 30--32, 34, 35, 37--44, 46, 47, 49--51, 53--62, 65, 67, 69--71, 73--76, 79--85, 88--91

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO
	cs 608 PB*dídí	22, 35, 92
	RF YAGA	21, 41, 89
	RF ISASA	76--78
UPEPQ	(cs 1493 PB*pépò[22]	22, 24, 25, 32,
	(ps 19 PB*bépò	35, 36, 40, 45,
		48, 49, 52, 53,
		55--60, 62--65,
		67--70, 75--77,
		79, 81, 86--89, 92
	cs 1602 PB*puŋg-	73, 80, 82--84,
		90, 91
	RF KUNGU[23]	76, 78, 85
	RF MOKAMA	11, 18, 19
	RF YAGA	1--3, 5--10,
		12, 14, 15, 17,
		38, 39, 41, 42
MAWINGU	cs 1885 PB*tù	1--5, 23, 26,
		28, 29, 33, 34,
		46, 62, 66
	cs 132 PB*bìŋgù	22, 24, 25, 32,
		35, 37, 53, 55
		--61, 63, 64,
		69, 75--79, 81,

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
		85, 89
	cs 748 PB*dùndè	3, 17, 38--45, 47--53, 58, 65, 67--73, 80--84, 87--92
	RF SARU	11--13, 15, 16, 18--20
	RF BUKI	24, 27, 31, 32
JUA	cs 955 PB*júbà	22, 35, 44, 45, 48, 50, 63--65, 69, 70, 76, 80, 86, 89
	ps 135 PB*cúbà	1--3, 8--10, 37, 49, 51--62, 66--68, 72, 75, 76, 79, 87, 88, 93
	cs 2147 PB*yúbà	4--7, 13, 15, 16, 18--21, 24, 25, 28, 33, 34, 39--42, 47, 71, 72, 76, 81--84, 90--92

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
	RF LIMI	17, 38
	RF IZUMBA	76, 77
WAKATI	Ø	3--7, 10, 12, 15--17, 20, 21, 36, 37, 41, 42, 44--46, 49, 52, 53, 57, 59, 63 --68, 70, 72, 74, 75, 78, 83, 89, 90, 92, 93
	ps 285 PB*-kàtí	22, 25, 32, 33, 35, 36, 39--42, 51--53, 55--59, 68, 69, 71, 73, 76, 80--84, 87 --89, 91--93
	RF KYE(E)RI	23--27, 29--34, 51
MAJANI	cs 926 PB*-jáni	35, 51--61, 76, 77, 91
	cs 393 PB*cúá	17, 38, 39, 45, 47, 69, 72, 73
	cs 1507 PB*pìà	75, 79

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
	cs 1928 PB*yáni̧	3, 35, 41, 56, 79, 85, 87, 88
	(cs 1948 PB*-yàti̧	3--8, 10--13,
	(cs 1948a PB*nyáti̧	15, 16, 18, 19, 21, 22, 35, 42, 64, 69, 80--84, 88, 90
	RF SOLE	62, 65--68, 70, 76, 79
	RF HAMBA	62, 65, 67, 80, 83, 84, 86, 91, 92
	RF -TV̲	11, 13, 16, 19, 20, 24--34
	RF MATUNDU	68, 70, 76, 78
UNGUZA	cs 2111 PB*yòk	4--6, 8--10, 17, 19, 23, 24, 29, 34, 35, 42, 52, 53, 58, 71 --74, 80, 81, 84, 85
	cs 719 PB*duŋguda	10, 15, 18, 20, 26, 33, 36, 57, 75, 76, 89

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
	cs 1472 PB*pémba	38, 64, 75--78
	cs 1508 PB*pía	7, 13, 14, 25, 33, 38, 49, 53, 58, 65, 67--72, 75--78, 81, 86, 91, 92
	RF COMA	17, 22, 35, 38, 50, 55, 58--62, 90
	RF ŠA	1--3, 6, 24, 28, 38, 51
KIANGASI	cs 499 PB*dàŋg "shine"	28, 32, 35, 37, 51, 53--55, 58, 59, 61, 80--84, 87, 89, 91
	cs 955 PB*júbà "sun"	22, 35, 65, 67--70
	RF CANDA	1--8, 17, 42
	RF -BASU	14, 16, 47, 49, 50, 62
	RF LUMU	75, 79, 82, 85, 87
	RF -SANYA	71, 73, 76--78

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
	RF MUI	8, 23, 26, 29 --33
MVUA	cs 225 PB*budà	1--6, 8, 10-- 20, 22--33, 35 --61, 63, 68-- 82, 84--88, 90 --92
	cs 744 PB*dùmba	6
	(cs 1787 PB*tóny (PB*tóni	49, 62, 65--67, 89
BICHI	cs 102$_x$ PB*bíci	1, 2, 4--6, 8 --12, 14
	cs 102$_y$ PB*bíci	15, 18--20, 22 --25, 28, 30-- 32, 34--36, 38, 41, 42, 51, 52, 54--61, 72, 74 --81, 85, 90
	RF DOD	2, 41, 50, 62, 64, 66, 67, 89
	RF NYILILE	6, 7, 16, 17, 38, 48

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
MAUA	cs 681 PB*dùbà	5, 8, 10, 12, 14, 15, 18--20, 22--26, 28--30, 32--41, 43, 46, 47, 49--61, 65, 68--70, 72--74, 76--78, 80--82, 86--93
	cs 15 PB*bàdà[24] "garden"	4, 6--9, 11, 13, 16, 19, 26, 27, 29--32
	RF SHUGWE	1--3
EKUNDU	cs 1223 PB*kúndú	22, 32, 35, 36, 46, 49--51, 53 --56, 58--62, 66, 87
	cs 429 PB*jédù "white"	43, 44
	cs 1193 PB*kúdà	1--9, 42
	RF DORIE	23, 26, 29, 30
	RF SAMU	24--26, 30, 32, 33
	RF KELI	80, 82, 84, 87 --89
	RF DUNGU	67, 68, 81

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
	RF SHAMANU	76--78
	RF KANGARU	10, 12, 18
WANAWAKE	cs 986 PB*kádì	4--10, 12--16, 18--20, 86
	cs 1198 PB*kúdù "big, older sister"	75, 79, 85
	RF BAK<u>V</u>	21, 22, 24--27, 29--34, 36, 46, 48, 50, 51, 54, 55, 59, 60
	RF BAK<u>V</u>MA	17, 38--40, 42, 43
	RF VADALA	65, 68--70, 80, 81, 83, 89
	RF KIMA	41, 72, 87
	RF GOLE	1--3
PANDA	cs 99 PB*bíád	4, 5, 7, 40, 65--70, 75, 76, 78, 79, 85, 86, 93
	cs 1432 PB*pànd	22, 35, 37, 44, 46, 50--62, 72, 80--84, 87--92

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
	RF TELA	1--3, 21
	RF (Y)AMBA	6, 8, 9, 15, 17, 38, 39, 42
	RF WA(Y)A	23--25, 27, 30 --32
NYOTA	PB* tondo (< Meeussen < Dempwolff/Bourquin)	34, 51, 55, 57 --60, 80--82, 84, 89
	PB*jota (< Meeussen < Dempwolff/Homburger)	8--11, 13, 15, 16, 18--22, 32, 35, 43, 45, 47, 48, 51, 53, 56, 59, 61, 63, 64, 76, 78, 87--89
	cs 1791 PB*tóndùà	68, 69, 75--77, 79, 83, 85--88, 90, 91
	ps 463 PB*tòndùè	52, 67--70, 92
	ps 430 PB*tàndá	73, 74
	cs 1983 PB*yényèdí	1--3, 6, 7, 23, 24, 26--33, 46, 62
	cs 1969 PB*yédí "moonlight"	65
	RF SONDA	17, 38--42, 44,

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
		72
MLIMA	cs 883 PB*gùdù	12, 14, 16--19, 38, 39, 41, 42, 47, 72
	cs 569 PB*dìmà	22--26, 32--35, 37, 51, 53--55, 57, 59--61, 63, 88, 89
	PB*tunda (∠ Meeussen ∠ Homburger/Bourquin)	43, 49, 50, 59, 62, 65--68, 70, 80, 81
	RF AMBA	2, 69, 71--79, 85
	RF CHITOMBI	81--84, 87, 88, 90, 91
	RF IFUMBU	25--28, 30--32
	RF GONGO	21, 51, 56, 64
ULIMWENGU	cs 886 PB*gùdú	1--6, 16, 44, 47, 67, 73
	cs 748 PB*dùndè	39, 45, 50, 72, 87, 92
	cs 1885 PB*tù	79
	cs 569 PB*dìmà "hill"	64, 82, 84, 87

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
		--89
	LW ULIMWENGU	22, 32, 35--37, 51, 52, 58, 61, 81, 84, 87--89, 91
	RF DUNIA	25, 33, 53, 55, 56, 76, 82, 87, 92
	RF KUMWANYA	68, 69, 75, 76, 79
	RF KYADO	7, 8, 13--16, 18, 20
	RF WELELO	6, 17, 39, 40 --43, 71, 72
	RF ISANGA	24, 28, 29, 51, 54, 62, 65, 67,
KONDA	cs 2125 PB*yónd	8, 10, 16, 19, 46, 73, 74, 86
	ps 313 PB*kónd	22, 32, 35, 37, 38, 40, 42, 48, 50, 63, 64, 71, 87, 89
	RF GANDA	17, 38, 40, 41, 43, 49, 62, 65,

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
		67--69, 75, 78 --81, 83, 85, 90, 91
	RF SOK-	25, 49, 52, 53, 55--57, 59--61
	RF KOMB-	82, 84, 87--89
	RF TOBA	11, 12, 18
VIMBA	cs 144 PB*bímb	4--21, 23--36, 38--42, 44, 45, 47, 49--51, 54 --60, 63--65, 68--74, 76, 78, 80--84, 87, 88, 90--92
	cs 1850 PB*tùp	86, 89
	RF TUMA	62, 66, 67
TAPIKA	cs 1684 PB*tápika	5, 22, 28, 33, 35, 46, 51--54, 58, 63, 64, 75 --78, 80, 82, 84, 85, 87--92
	cs 695 PB*dúk	3, 11, 13, 16 --21, 32, 37--

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
		42, 44, 45, 47, 73, 74
	RF DEKA	24, 27, 29, 31, 34, 43, 49, 50, 55--57, 59--62, 65, 67, 69, 75, 79, 80, 81, 83
	RF DAWA	1--3
USO	cs 346 PB*cḷó	4--8, 13, 16, 20, 22, 35, 42, 44, 47, 54--56, 58--60, 63, 66, 67, 87, 92
	cs 347 PB*cḷú	8--12, 15, 17 --19, 21, 37-- 41, 43, 45, 46, 49, 72--74, 90
	cs 391 PB*cú	1, 2, 70, 73, 75--77, 79, 85, 86
	RF -ENI	14, 52, 53, 65, 70, 71, 76
	RF KISANGU	23, 24, 26, 29,

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
		30
	RF KYAMU	25, 27, 28, 31 --34
	RF KIHANGA	3, 54, 57, 59, 62
	RF MIHU	65, 68, 69, 80 --84, 89
PUA	cs 1591 PB*pùdà	23, 26, 28--30, 34, 35, 36, 43 --62, 64, 65, 67--70, 78, 89 --93
	ps 404 PB*pùdò	24, 25, 31, 32, 75--77, 79, 87, 88
	ps 410 PB*pùnò	12--74, 76, 80, 84, 85, 86
	cs 960 PB*júdù	1--3, 17, 38
	ps 512 PB*yídò	11, 18, 19, 41
	RF N-(C)INDO	4--6, 14, 38-- 42, 72
	RF ENY-ONGO	8--10, 12, 15, 69

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
	RF MENGELO	66, 68, 81, 83
NYONYA	cs 2135 PB*yóŋka	1--7, 11--13, 17, 18, 20, 23 --34, 36--58, 60, 62--65, 67, 68, 70, 72--76, 79--85, 87--92
	cs 1908a PB*yámu-	8, 9, 14, 15, 35, 59, 61, 86, 93
	RF KOGA	16, 19, 66, 69, 76--78
KUNA	cs 397 PB*cùb "rub" PB*cuba (∠ Meeusen ∠ Homburger/Meinhof/ Struck)	4--6, 8, 21, 23 --34, 36, 40, 49, 51, 75, 76, 78, 85
	PB*jaga (∠ Meeussen ∠ Homburger)	2, 3, 5, 7, 8, 10, 11, 13, 16, 18--20, 52--54, 58--61, 80, 82, 84, 87, 88
	RF KWANYA	90, 91, 93
	LW KUNA	14, 22, 35, 37,

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
		48, 80
	RF FUNYA	71, 73, 74
ZAA	cs 136 PB*bíad	5--7, 22, 35, 41, 46, 73, 74
	cs 208 PB*bút-	8, 9, 12, 13, 15--20, 38, 39, 41, 42, 44, 47
	cs 512 PB*dèd	44, 47, 55, 57, 60--62, 89
	cs 77 PB*bèdik	82, 84, 87
	cs 1449 PB*pàap	67, 68, 75--79, 81, 82, 85, 88
	RF VYAYE	1--3
NYWELE	cs 411 PB*cùkí	4--7, 13
	cs 2180 PB*yúídí	9, 14, 23, 26, 30, 53, 54, 56 --58, 61
	ps 248 PB*gúídí	8, 10, 38, 43, 49, 62, 64, 66, 67, 75, 85
	cs 2180a PB*nyúídí	22, 25, 27, 31 --34, 51, 59, 68, 69, 79, 81,

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
		83, 87--89
	cs 2179 PB*nyúédé	21, 35, 37, 39
		--41, 48, 55,
		60, 65, 70--74
	cs 113 PB*cítí	76--78
	cs 103 PB*cící	86
	RF YUNJU	80, 81, 84
DAMU	(cs 766 PB*gàdí [25]	39--43, 48, 63,
	(cs 1897 PB*yàdí	64, 71--74, 80
		--84, 86, 89,
		90
	cs 2081a PB*nyíngà	8--13, 15--18,
		20, 38
	cs 671 PB*dòpà	75, 79
	LW DAMU (< Arabic,	22--33, 35, 51,
	according to Johnson)	55--62, 88, 92
	RF SAKAME	6, 7, 34, 45--
		47, 49--52, 54,
		58
	RF CANDA	65--68, 70, 75
		--78, 85
MAMBA	cs 870 PB*gùìnà	8--20, 65, 67
		--70, 74, 75,

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO .
		79--85, 88--91
	ps 233 PB*gòònà	1--3, 86
	PB*mamba (< Meeussen	2, 3, 22, 24,
	< Meinhof)	25, 28, 29, 31
		--42, 44, 46--
		50, 57, 58, 68,
		71, 76, 77, 82,
		87--89, 92
	RF N(K)VAU	23--26, 29, 30,
		32
	RF AMA-BULU	78, 92
OSHA	ps 303 PB*kóca	4--6, 8, 9, 14
		--17, 42, 56,
		63
	cs 267 PB*càmb	24, 28, 31, 33,
		34, 83
	cs 435 PB*cùk	36, 69, 70, 75,
		79, 86
	ps 136 PB*cùg	75, 76, 79
	cs 2107 PB*yóg	1--3, 12, 18,
		21, 22, 65, 70
	RF YOZYE	77, 78, 90
	RF SANGYA	23, 25--27, 29

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
		--32, 37, 43
	LW FUA ($<$ Swahili)	71--74
	RF KALAVE	67, 68, 92
ZIZI	cs 591 PB#di	1--31, 33--46, 48--50, 54--64, 66, 71--79, 81, 88
	RF GEGA	80, 82, 84, 87, 88
	RF DEDA	65, 67--70, 90
	RF CINDO	51--53
KWELI	RF (C)EDI	7, 14, 22, 26, 29, 35, 40, 41, 51--55, 59--62, 64, 67--70, 72, 73, 84, 87, 88, 90--93
	RF LO(L)I	25, 27, 31--33, 36, 75, 76, 78, 79
	RF CENE	3, 11--13, 15, 16, 18--20, 34, 37, 86, 90

SWAHILI	UNDERLYING FORM AND SOURCE	LANGUAGE NO.
	RF CHAKAKA	80--84, 89
	RF GANA	17, 38, 39, 41

It must be pointed out that in our analysis we have examined one hundred and five words in each of ninety-three dialects, two of which, Nyanja (#86) and Taita (#36) are mainly found outside of Tanzania. Taita is primarily located in Kenya but is also found around the Pare area in Tanzania. The second dialect, Nyanja, is found in the border areas of Zambia, Malawi, and Mozambique.

FOOTNOTES

1. The Proto-Bantu forms are from M. Guthrie's Comparative Bantu (Vol's III and IV, 1971); other sources will be indicated.

2. This is another possible source for the form PB*pio.

3. See Meeussen ⦟ Dempwolff--not found in Guthrie.

4. This is a plausible explanation for the alternation of the surface forms occurring in these dialects.

5. We have combined all of the following variations, PB*jí ~ jí ~ yíjì ~ jìgì, cs 2040 yíjì, cs 2079 yiní, under cs 943 ji in order to simplify the chart, but Guthrie states that they are all derivable from PB*ji, meaning "water".

6. This form usually occurs on the west coast of Africa; it could be the Proto-Bantu form for these surface forms.

7. These surface forms might also come from the following Proto-Bantu forms as well, except that they are mostly found in the western part of Africa: ps 48 PB*bùm or cs 1599 PB*pùm, both of which are from Zones A through C, but cs 2160 PB*yùm is the most logical source here.

8. Both are possible sources for the surface forms.

9. These three Proto-Bantu forms are the possible sources for the surface forms found in our questionnaire.

10. Forms like CV-lilo are derived from PB*dió plus -l-insertion, i.e.

$$\emptyset \longrightarrow \text{l/i} \underline{\quad} \begin{pmatrix} \\ a \\ o \end{pmatrix}$$

in the respective languages. The same pattern occurs with the forms derived from PB*día which Guthrie labelled as a by-form of dió.

11. The right side is, however, often associated with the side of the male in these cultures; it must also be noted that the word for "female" is not used to indicate the left side--thus, it is the "male" or

"non-male" side.

12. These two Proto-Bantu forms are both possible sources for the surface forms, but cs 1673 is most likely the best Proto-Bantu form.

13. It could be a shorter form of cs 1197 PB*kúdù.

14. Possibly an extension of the cs 820 PB*gì.

15. Here it is an extension of the original meaning, i.e. PB*pini meaning "squeeze" (especially, with the fingers).

16. The surface form is derived from the Proto-Bantu root cs 889 PB*gùduk, but the first syllable seems to have been deleted, probably due to the fact that the speakers of the various languages took this first syllable as being a concord marker.

17. The following surface forms appear to be the result of a reduplication of the second syllable (CV) of the root ps 43 PB*bùduk.

18. These surface forms may also be the result of a contamination form of cs 227 PB*búg and cs 230 PB*bun.

19. Here we have added the tense [ụ] to the Proto-Bantu form in order to get our surface form and, also, to get the fricative in the second syllable of the root.

20. All the surface forms may be derived from the cs 2161 PB*yúm, "become dry and hard", as well as from ps 243 PB*gúm, ps 244 PB*gúmù, and ps 557 PB*yúmù.

21. The [#b] may also be due to the voicing assimilation rule which is applied when the root is preceded by [m], i.e. p $\longrightarrow$ b/m____.

22. See the explanation given in footnote 21.

23. The same reference form is found for the word for "clouds", mawingu, probably the same source, since there is a semantic relationship between wind and clouds.

24. These surface forms are most likely derivatives of the PB*bàdà, "garden".

25. Both of these could be the source of the surface forms found here.

CHAPTER VI--BORROWING

I. DISCUSSION OF BORROWING

A. Borrowing Defined:

Anthony Arlotto, in his book, Introduction
to Historical Linguistics, defines borrowing as "the pro-
cess by which one language or dialect takes and incorpo-
rates some linguistic element from another."[1] Einar Hau-
gen, in the Ecology of Language, bases his definition of
borrowing on the three following assumptions:

> (1) Every speaker attempts to reproduce previous-
> ly learned linguistic patterns in an effort to
> cope with new linguistic situations.
>
> (2) Among the new patterns which he may learn are
> those of a language different from his own, and
> these too he may attempt to reproduce.
>
> (3) If he reproduces the new linguistic patterns,
> not in the context of the language in which he
> learns them, but in the context of another, he
> may be said to have 'borrowed' them from one lan-
> guage into another.
>
> The heart of our definition of borrowing is then:
> THE ATTEMPTED REPRODUCTION IN ONE LANGUAGE OF
> PATTERNS PREVIOUSLY FOUND IN ANOTHER.[2]

W.P. Lehmann, in his revised edition of Historical Lin-
guistics an Introduction, illustrates the term "borrow-
ing" as follows: "The process referred to by linguists
as borrowing is by far the most important effect on the
semantic component of language brought about by the

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influence of other languages or dialects." He goes on to say that "Borrowing may be viewed as cultural diffusion. In accounting for its effects, one must attempt to determine the (1) conditions under which borrowing takes place, (2) the various types of borrowings."[3]

B. Conditions for Borrowing:

The conditions for borrowing are both linguistic and sociological. That is to say, in most cases the reason for borrowing is socio-economic or socio-political but the result is linguistic change.

The various conditions for borrowing are:[4]

1. Borrowing when a language of prestige is adopted. When speakers learn a prestige language, they are under pressure to acquire it without flaws. They usually borrow words of that prestige language into their native language in order to impress their peers and use absolutely no loanwords when speaking the prestige language.[5] Therefore, "snobbism" may be a source or borrowing.

2. Borrowing when a language of prestige is used simultaneously with a surviving indigenous language. This condition is best exemplified by the historical difference in social status of French and English after the Norman Conquest. This situation resulted in code shifting, as a consequence of which members of higher classes

used the French terms for certain segments of the native (English) vocabulary, e.g. <u>pork</u> (vs. <u>pig</u>), <u>supper</u>, <u>pastry</u>, <u>deuce</u>, <u>mason</u>, <u>tailor</u>, etc. This perhaps could also be looked upon as another example of snobbism.

3. Borrowing when the languages concerned are on an equal plane. When the two languages are used for everyday communication, the language with the larger number of speakers is maintained, though in some cases with simplification of structure, usually ending in a <u>pidgin</u> or a <u>creolized</u> language.[6]

4. Borrowing may occur between dialects, e.g. the standard language may borrow words from a particular regional dialect or from a technical jargon.[7] Doublets are also described by Lehmann under this subheading, doublets being two words that are related; these result from borrowings made at different times from the same ultimate source. For example: English <u>male</u> French <u>mâle</u> < O. Fr. <u>mascle</u> < Lat. <u>masculus</u>, and English <u>masculine</u> < Lat. <u>masculīnus</u>, which is a derivative of <u>masculus</u>.

5. Borrowings may be taken from the written language--abbreviations may be used as full words, e.g. UNESCO, FBI, CIA, NATO, etc.[8]

6. Borrowing of foreign terminology in order to discuss and refer to taboo subjects; for some

reason, referring to "it" in a foreign language is not so
shocking.

Weinreich provides us also with a series of rea-
sons for lexical borrowing. He mentions that the desig-
native·inadequacy of a vocabulary in naming new things is
not the only cause of lexical innovation. Other major
(internal) factors leading to lexical innovations are:

(1) low frequency of words: The relatively
infrequent words of the lexicon are less stable than fre-
quent ones, which come to mind easily; thus, the infre-
quent words are more likely to be subjected to oblivion
and replacement.

(2) homonymy: especially, when social ta-
boos are involved, e.g. ass replaced by donkey, cock re-
placed by rooster, in American English. [9]

(3) need for synonyms: This is related to
the well-known tendency for affective words to lose their
expressive force.

(4) need for better differentiation: to
which the social values implied by euphemism and ostenta-
tion can be added. [10]

C. Major Types of Borrowing:

There are three categories of borrowing,
(1) lexical, (2) phonological, and (3) syntactic. [11]

1. Lexical Borrowing:

There are basically three major types of [12] lexical borrowing:

(a) Loanwords: Loanwords "show morphemic importation without substitution. Any morphemic importation can be further classified according to the degree of its phonemic substitution: none, partial, or complete."[13] For example, the English word oxygen which is composed of two Greek entities oxy+gène was borrowed from the French oxygène by English speakers.[14] Loanwords actually entail two types of borrowing: (1) loanwords indicating cultural acceptance of the concepts involved, e.g. the English loanwords bagel (from Yiddish), goulash, (from Hungarian), savoir faire (from French), and so on.... These loanwords reflect cultural attachment to the concept absorbed and accepted by the borrowing culture, along with the linguistic borrowing.[15] (2) loanwords in specialized fields; for example, the terms ablaut and umlaut are in general use by linguists but are rarely, if ever, employed by other speakers. The borrowed item normally becomes fully assimilated into the phonological system of the borrowing language, e.g. the [ü] sound of the French expression "deja vu" has been changed to the English vowel sound [u]. Similarly, tones have ceased to be a relevant feature in words borrowed

from a tone language if the recipient language is not it-
self a tone language, e.g. the Chinese terms "kowtow"
and "chow mein" in English. Strange or unusual sounds
are often only approximated and are replaced by similar
sounds in the borrowing language.[16]

      (b) Loanblends: Loanblends "show mor-
phemic substitution as well as importation. All substi-
tution involves a certain degree of analysis by the speak-
er of the model that he is imitating: only such "hybrids"
as involve a discoverable foreign model are included
here."[17] A good example of this is the descriptive Swa-
hili expression for the word train, "gari la moshi"--
gari < Hindi "car", la Swahili "of", and moshi < Swahili
"smoke".

      (c) Loanshifts: Loanshifts "show mor-
phemic substitution without importation." These include
what are usually called "loan translations" or "calques"
(for example, the English compound noun (N+N) handbook
from Latin manualis liber (manualis=hand, liber=book) or
the expression lightning war patterned on German Blitz-
krieg (Blitz=lightning, Krieg=war)) and semantic loans
(for example, the term earl (O.E. eorl) originally meant
"brave warrior", but the present meaning was taken over
from Old Norse, where the corresponding word indicated a
rank of nobility). "The term 'shift' is suggested

because these appear in the borrowing language only as functional shifts of native morphemes."[18]

There are other terms used in connection with lexical borrowing, such as "semantic loan", "loan blends", etc. Lexical borrowing is the most common type of linguistic borrowing and is what we are primarily concerned with. However, there are two other types of borrowing, phonological and syntactic, which we will briefly describe and exemplify.

2. Phonological Borrowing:

There are two types of phonological borrowing: (1) use of already extant phonemes in hitherto unaccepted combinations such as the consonant cluster kn- in initial position; (2) borrowing of a new phoneme and accepting it into the borrowing language sound pattern (perhaps with certain restrictions), for example, the new English phoneme /ž/ as in the French loanword rouge [ru:ž].[19]

3. Syntactic Borrowing:

Syntactic borrowing is the borrowing of syntactic forms or whole constructions. For instance, the constructions, attorney general and court martial, where the adjective follows the noun as it does in the source language (French). This construction has served as model for several other technical terms, such as

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<u>postmaster general</u> or <u>proof positive</u>.

II. THE LANGUAGE SITUATION IN TANZANIA

We shall now examine the language situation in Tanzania and try to apply the foregoing information in perspective in the context of the classification of the Bantu languages of that country.

It may be in order to assert here, once again, that the focal interest in this study is in the lexical borrowings from Swahili into the various other languages and dialects of Tanzania. We will attempt to explain the conditions that led to this borrowing as well as to illustrate the reasons for the various degrees of borrowing occurring in the different regions of Tanzania.

A. <u>History of Swahili Influence in Tanzania</u>

The Swahili influence on the other languages and dialects of Tanzania may be described as having occurred in four important waves.

The first wave started in the early nineteenth century and was associated with Arab caravan leaders (who were usually financed by the Sultan of Zanzibar) such as Tippu Tip, whose energy and initiative brought Swahili inland. "The spread of Swahili inland in Tanzania is also due to the reputation of the Masai, who for many years prevented the penetration of Kenya and Uganda by

any but the most circuitous routes."[21]

The second wave, although brief, was quite influential. We refer to the German colonial period in Tanzania, which began in 1885[22] and ended after the First World War. The importance of this period rests on the fact that the German colonizers used Swahili as the language of government.[23] For this reason, also, they taught Swahili to all their officials and employees, both white and Africa.[24] Since Swahili was the government language, great efforts were made to document its history, and scholars like Velten, Seidel, Büttner, and others provided the materials for seminar courses in Berlin. In addition, the German mission schools, which, in general, concentrated their attention on local languages, taught Swahili, and along with the British missionaries, they began to publish Swahili journals. By 1914, the German administration was able to conduct much of its communication with village headmen in Swahili.

Unfortunately, after World War I, Swahili expansion suffered a setback because the British language policy was different from that of the Germans and the acquisition of English received highest priority. This resulted in making Swahili a "second class" language even in the eyes of the Tanganyikans. Swahili was still used

in primary education under the British protectorate, but higher education was in English only.

The third wave, which started with the British occupation in the twenties, was at first negative but, then, around the mid-thirties and forties, a group of scholars managed to carry through a program of standardization of Swahili.[25] This movement was strongly reinforced by the creation of TANU (Tanganyika African National Union) by Julius Nyerere in 1954, whose two major objectives were: (1) nationalism without racism and (2) the promotion of Swahili as the national language of the country.

The fourth wave occurred during the post-Independence period, starting after December 9; 1961. This wave was a typically political one: the Zanzibaris, who are native speakers of what they consider to be "pure" Swahili, were driven from their native island of Zanzibar by ani-Arab/anti-Muslim revolutionaries in the post-Independence government and became political refugees in continental Africa, mostly in Dar es Salaam, in the coastal regions to the north, and in Kenya, where some served as Swahili experts.

> This wave led to the systematic policy of handling all internal state business in Swahili. Numerous problems still have to be faced to implement this policy: (a) In certain fields there is no satisfactory technical vocabulary available.

An official nomenclature of titles and functions in the administration had to be established. (b) A workable legal vocabulary had to be established. The outcome of several years of intense work by A.B. Weston, Dean of the Law School of Dar es Salaam, and Sheik Mohamed Ali, a Swahili expert, was a compilation of a list of 3300 words, formed by all kinds of devices, including derivation, composition, borrowing from local Bantu languages, from Arabic (with careful avoidance of ambiguity due to special meaning in Islamic Law), and from English (with evident reluctance)."[26]

B. Acceptance and Assimilation of Borrowings:

The degree of acceptance and assimilation of borrowings, as well as the amount of time required for borrowed words to be totally accepted within a language, depend on several factors, some of which are linguistic, and others of which are social and geographical.

1. Acceptance:

First we shall look at the factors influencing the acceptance of borrowings. Even today, the languages and dialects of Tanzania are primarily influenced by the chiefs and elders of the tribes where these languages and dialects are spoken. Therefore, if tribal law is still very strong and exerts a close control over the members of a particular tribe, if the elders wish to keep their tribal traditions alive, they will usually be able, if not to stop, at least to slow down borrowing and the supposed "bastardization" of their language and, thereby, their culture. We mention culture here because some cultural change normally accompanies borrowing, to

                    27
some degree.   The converse is true, also: lexical bor-

rowing is typically brought about by cultural change, such

as the introduction of new technologies, for which new

terms are introduced into a particular culture concurrent
                                              28
with the introduction of the technology.

        For instance, the missionaries ran into a still

very active opposition to the use of Swahili by strongly

language-concious ethnic groups.   This was true as late

as the mid thirties, so that Sukuma, Ha, Haya, Kyakyusa,

and other tribal languages were resorted to for religious
                                    29
education and for other purposes.

                    2. Assimilation:

                        a. Phonological Assimilation:

                            One noteworthy aspect of phonological

assimilation is related to the fact that a majority of

the languages under study are tone languages.   Because

Swahili is not a tone language, we may assume that a bor-

rowing from Swahili would be adapted to the tonal phonol-

ogy of the individual borrowing language, i.e.   that tone

would be "added" to each borrowed item.   Unfortunately,

however, we do not have the necessary information needed
                                    30
to verify and illustrate this.

                    b. Syntactic Assimilation:

                        Lexical items borrowed from Swahili

are sometimes assimilated into the concord systems of
some of the borrowing languages, while words borrowed into
other languages maintain the original (i.e. Swahili) con-
cordial prefixes. It is typically true of the words from
the Swahili N-/N- Class that they retain their original
Swahili concords when borrowed. It is not uncommon to see
both forms, i.e. both the assimilated and the original
concords, used interchangeably by speakers of a particular
language.

c. Reasons for Borrowing:

We have just examined a number of fac-
tors which determine why, in certain cases, it may take
loanwords longer to gain acceptance and to be assimilated
into a borrowing language or dialect. We shall now exa-
mine why borrowing takes place at all and, in addition,
why some people may be more willing than others to accept
foreign words into their language, or even to admit the
possibility that their language might eventually become
a pidgin language or even possibly disappear.

As this study will show, it is the influence of
governmental pressure on the population which is, in most
part, responsible for inducing lexical borrowing from
Swahili into other native languages and dialects and
which is manifested in a number of different ways:

1) job economics:

Governmental pressure is exhibited
strongly in personal economics. All bureaucratic activi-
ties and transactions are carried out in Swahili. There-
fore, anyone who wants to work in town or work for the
government must learn Swahili. It is clear that it is
prestigious to speak Swahili rather than another language
or dialect of the area because prestige is commonly as-
sociated with money and position, and money is dependent,
at least in part, upon one's knowledge of Swahili--jobs
found in town and with the government are among the great-
est sources of employment, and the monetary advantages
and status which accompany such employment are superior
to those of other types of jobs.

2) mass communication:

All Tanzanian newspapers, journals,
and radio broadcasts, by government regulation, use Swa-
hili or English only, so that anyone who wishes to use
the public media must have a knowledge of either language.

3) technology:

Elements of developing technology,
as well as all new products that are introduced, are de-
scribed and labelled exclusively in Swahili. Thus, the
people who adopt these are obliged to employ the Swahili
terms for them, even when speaking their own languages or
dialects. Thus, such Swahili expressions are gradually

borrowed and become an integral part of the lexicon of
these languages and dialects.

4) education:

Political pressure has spawned lex-
ical borrowing by forcing the teaching of Swahili in the
schools throughout Tanzania and thereby creating a bilin-
gual situation. As more and more children attend the
schools, the percentage of borrowing from Swahili will
certainly increase because certain subjects will only be
discussed in Swahili, the language learned in the schools.
The presence of such a bilingual situation normally leads
to language-switching and, subsequently, to the adoption
of borrowed terms.

In every bilingual situation that the present
author has been involved in, certain subjects, such as
education and religion, have typically been discussed in
the language used in the schools. Ultimately, even the
elderly in the community who never attended the bilingual
schools begin to borrow expressions from the youth, and,
with time, the lexical borrowing spreads to the point
that borrowings eventually replace the native terms. In
Tanzania, however, this impetus for lexical borrowing is
barely entering the first stage, that of trying to create
a completely bilingual youth population and training in-
structors to teach subjects at higher educational levels

in Swahili rather than in English.

III. CONCLUSION

Having briefly examined lexical borrowing, we conclude that the general condition under which borrowing from Swahili takes place in most of the Tanzanian Bantu languages and dialects falls under Condition 2, i.e. borrowing from a language of prestige which is then used simultaneously with a surviving indigenous language.

This study has established that the borrowing in Tanzanian languages and dialects is, to the greatest extent, promoted by socio-economic factors, such as an appeal to prestige. It is further supported by technology, although to a lesser degree, since the industrialization period is just beginning in Tanzania.

With the growing influence of Swahili and the pressure on small groups to integrate in Tanzanian society, extensive borrowing may progressively contribute to the weakening of the resistance of the local languages and be a decisive factor in their ultimate disappearance.

A statistical analysis of the percentage of Swahili borrowings in each language under study will be provided in the final chapter. It should be pointed out, however, that these figures are based on a small corpus of data and, thus, are more approximate than definitive in

estimating the trend in each of the languages analyzed. The informants belonged to the age group 18-25, whose education has been totally in Swahili and whose command of the vernaculars may be less perfect than that of the older generations.

FOOTNOTES

1. Louis Deroy uses the definition of Vittore Pisani, which is as follows: "Borrowing is a form of expression that a linguistic community has received from another community." (Paris, 1956, p.18).

2. Haugen, p. 81.

3. Lehmann, p. 216.

4. Some of these points are mentioned by Lehmann, pp. 219-227.

5. See Lehmann's example of Frederick the Great of Prussia, pp. 219-20.

6. Ibid., pp. 223-24.

7. This may also occur between foreign languages--when a culture adopts a new technology, often it borrows the terminology as well, e.g. when the automobile was introduced in East Africa, the native culture borrowed the word "motocaa".

8. UNESCO--United Nations Economic, Social, and Cultural Organization
   FBI--Federal Bureau of Investigation
   CIA--Central Intelligence Agency
   NATO--North Atlantic Treaty Organization

9. These examples were provided by Edgar C. Polomé in his article, "Linguistic Borrowing" (in press, pp. 3-4).

10. Ibid., pp. 3-4.

11. Phonological and syntactic borrowing are not relevant to the present study, but brief examples will be provided. For more information, see U. Weinreich, Languages in Contact. Findings and Problems. (New York, 1953).

12. Weinreich (1953, p. 51) describes three types of lexical borrowing, the definitions of which he attributes to Werner Betz (1936 and 1949):
    a) loan translation--in which the model is

reproduced exactly, element by element;
   b) loan rendition, in which the model compound
only furnishes a general hint for the reproduction;
   c) loan creations, a term applied to new coinages
which are stimulated by the need to match designa-
tions available in a language in contact.

13. Haugen, 1972, p. 85.

14. According to Lehmann (p. 217), the word telephone
was borrowed directly from the Greek entities
[tele+phone] (tele "at a distance", "far off" and
phone "sound", "voice").

15. More examples are available in Arlotto's Introduc-
tion to Historical Linguistics (Boston, 1972).

16. For further details, see Haugen, pp. 85-88.

17. Haugen, p. 85.

18. Ibid., p. 85.

19. According to Arlotto (pp. 191-92), [kn-] is accepted
pronunciation in English for the Yiddish loanword
[kniš] "potato pancake" and for the Hebrew loanword
[kneset] "parliament", even though in English a
word-initial k before an n is not pronounced, as in
know [no:] and knife [nayf]. [ž] is only found in
French loanwords from the Norman occupation (1066-
1250) and in modern French loans.

20. The normal syntactic construction in English is
Adj. + N; the construction N + Adj. is acceptable
only in special cases such as the technical terms
cited in the text (Arlotto, pp. 193-94).

21. W. Whiteley, 1969, p. vii.

22. According to Whiteley (1969, p. 57): "It is the
year that Bismarck granted a charter to the Society
for German Colonization, to develop those territor-
ies it had acquired as a result of the efforts of
Carl Peters and his fellow adventurers."

23. At first "the German occupation of the mainland led
to some fruitless attempts to use German extensively
for administrative and educational purposes, but

very soon these efforts were given up in favor of
the use of Swahili, although the pressure exerted on
certain missions to make them teach Swahili encoun-
tered strong resistance." (E.C. Polomé, 1972, p. 74).

24. According to Whiteley (1969, p. 59), "They establish-
ed a school in Tanga in 1893 to train Africans to
occupy places as junior officials, by 1903--8 gov-
ernment schools, 12 local authority schools, and 15
mission schools."

25. E.C. Polomé has noted (1972, p. 75) that "This very
active group (Inter-territorial Language Committee)
has to its credit the standardization of the lan-
guage of textbooks, the proposal of an impressive
number of technical terms in Swahili, the collection
of valuable manuscripts, the promotion of literary
activity in Swahili and the initiation of the syste-
matic study of Swahili dialects. And most of all it
confirmed the position of Ki-Unguja as the model for
"correct Swahili."

26. Ibid., p. 76.

27. M. Ali Jazayery acknowledges the possible concurrence
of cultural and linguistic borrowing: "A loanword
indicates that cultural borrowing may have taken
place...The more extensive the cultural contact the
larger the number of loanwords." However, he cau-
tions: "The presence of a loanword in a language
does not necessarily reflect cultural borrowing...
Nor does the absence of one preclude the possibility
of the occurrence of such borrowing. The verifica-
tion will have to come from non-linguistic evidence
...The fact is that, even where we are certain that
a given loanword represents cultural borrowing, that
certainty is based on non-linguistic evidence."
(Jazayery, 1969, p. 95).

28. See footnote #7.

29. Op. cit., p. 75.

30. The data collected were transcribed by the infor-
mants in teacher training colleges with the restric-
tion indicated in the chapter on methodology. Since
Swahili orthography did not provide a model for
writing tone, no such indication was given. Only a
number of the questionnaires were taped, so that a
detailed analysis is not possible.

CHAPTER VII--CLASSIFICATION AND STATISTICAL ANALYSIS

In this chapter we will present our findings in a statistical fashion and will also give detailed descriptions of certain maps, as well as several maps which are exemplary of the isogloss patterns in Tanzania.

The isogloss maps for the one hundred and five words analyzed in detail in the previous chapter were divided into three major groups, according to their usefulness to our classification proper. These groups are labelled: "Proto-Bantu", the "Split" or "Totally Intermingled Group", and the "Clear-Cut Grouping". Each of these groups plays an important role in our analysis of the Bantu languages. The maps of the Proto-Bantu group are indicative of the degree of conservatism and also show or point out the dialects that might be more apt to accept innovation; such maps may also demonstrate the fact that one can find residue forms in some areas where a new form had been introduced, accepted, and even replaced the original word. The split group demonstrates the pattern of influence of one concept upon another, as well as the complexity that is being created by innovations that are arising at different places and disrupting the dialect pattern. The last group, the clear-cut

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grouping, is the largest group, and it is the one that will provide us with our actual classification and demonstrate the patterns of innovation.

Let us now turn our attention to each of these groups separately. Exemplary maps of each group will also be provided for reference.

I. PROTO-BANTU GROUP:

The Proto-Bantu group of isogloss maps is the one in which a single Proto-Bantu form is used by more than eighty percent of the languages studied, while the other twenty percent is taken up by one or more other sources. These sources may be other Proto-Bantu forms, referential forms, or even loanwords.

The words which have provided us with this type of isogloss maps are:

1) ZIZI, "root": There are three islands created by innovation, which we have labelled "RF". There is one in the Pare area, RF CINDO, covering the languages Pare, Shambala, and Bondei; another, RF GEGA, in the southwest of Tanzania along Lake Nyasa, with two small pockets in the east, south of Dar es Salaam, which covers the languages Kimanda, Kimatengo, Mpoto, Ndengereko, and Matumbi; the last, RF DEDA, is in the central and southern areas, encompassing the languages Kisangu, Bena, Pangwa, Kinga, Wanji, and Yao (see Figure VI).

2) NYONYA

3) VIMBA

4) MAUA

5) MVUA

6) BARIDI

7) IMBA

8) OZA

9) CHINI

10) ANGUKA

11) CHAKULA

12) MIZIGO

13) MATE

II. SPLIT GROUP:

The words in the "split" category have formed very complex isogloss maps, often with numerous overlapping of areas. The words in this study which produced this type of mapping are:

1) NDEGE, "bird": This lexical item is represented in our data by seven Proto-Bantu forms and by one referential form. The Proto-Bantu forms are the following: PB *dègè, PB *jùnì, PB *yùnì, PB *noní, PB *nyònì, PB *nyùnì, and PB *nùní. The referential form is RF BONGU.

The areas defined by the isogloss for PB *dègè

are located in the eastern half of Tanzania. The large
isogloss area begins along the Kenya border and continues
along the East Coast across central Tanzania to the east-
ern shore of Lake Nyasa. The languages included in this
island are: two-thirds of the Chagga dialects, Gweno,
Pare, Meru, Gogo, Kagura, Kirangi, Shambala, Bondei, Zi-
gua, Kwere, Zaramo, Doe, Ngulu, Luguru, Kami, Kutu, Sa-
gara, Hehe, Bena, Pangwa, Kinga, and Kingoni. A second,
single language area is also found in east Tanzania;
this area covers the Kirangi language.

The isogloss for PB *$\underline{jun\grave{i}}$ delineates a set of
four areas, three of which are multi-language islands; a
single language island overlaps with the area for PB
*$\underline{yun\grave{i}}$. The location of this single language island is
the East Coast , and the language it covers, Ndengereko.
The first of the multi-language islands is also found on
the East Coast and includes the Mwera and Yao languages.
The second isogloss area is found along the Mozambique
border; the languages Yao and Kimatengo are enclosed by
this island. The third and last of the multi-language
areas outlined by the isogloss for PB *$\underline{jun\grave{i}}$ is located
along the Malawi border and the northwestern shore of
Lake Nyasa and covers the Ndali, Wanji, and Nyakyusa lan-
guages.

The next set of five areas defined by an isogloss

is the one for PB *yùnɨ. All five isogloss areas are
single language islands, two of which are located on the
East Coast--these are the Ndengereko and Matumbi languages.
The third area is located along the eastern shore of Lake
Nyasa and covers the Mpoto language. The fourth area is
found in west-central Tanzania and covers the Kinga lan-
guage, which is also part of the large island defined by
the isogloss for PB *dègè. The last of these islands
bounded by the isogloss for PB *yùnɨ is located along the
Malawi border and includes the Rambia speakers.

The next set of two areas is delineated by the
isogloss for PB *nònɨ. The first area is a large, multi-
language island located in northwestern Tanzania which
includes the following languages: Shubi, Hangaza, Kiha,
Sizaki, Sukuma, Nyanyembe, Sumbwa, Nyiramba, Kɔnɔngɔ,
Pimbwe, and Rungwa. It overlaps with the island for PB
*nyònɨ over the territory of the Kɔnɔngɔ speakers. The
second, single language area, outlined by the isogloss
for PB *nònɨ, is an island in Lake Victoria, the language
of which is Kerewe.

A set of seven isogloss areas is formed by the
boundary delineating the usage of PB *nyònɨ. Four of
these areas are multi-language; the first area is loca-
ted along the western shore of Lake Victoria and includes
the Nyambo, Haya, and Zinza languages. The second multi-

language island covers the territory of the speakers of
the languages Jita, Ruri, Kwaya, Kabwa, and Zanaki, lo-
cated along the eastern shore of Lake Victoria. The third
multi-language area defined by the isogloss for PB *nyònì
is found in west-central Tanzania and covers the Bende,
Lwira, and Kɔnɔngɔ languages, the latter overlapping with
the island for PB *nònì. The last of the multi-language
areas is in southwestern Tanzania and includes the Safwa
language and Nyiha, which is also an isogloss area for
PB *nyùnì.

The first of the single language areas is located
in central Tanzania and covers the speakers of Rimi. A
second island is found along the Kenya border and in-
cludes the Taita language. The last area outlined by
this isogloss, i.e. for PB *nyònì, is found in a small
corner of the Masai territory and includes the Sonjo lan-
guage.

The next set of six isogloss areas for a Proto-
Bantu form is outlined by the isogloss for PB *nyùnì.
Only one of these areas is a multi-language island, and
it stretches along the southeastern shore of Lake Tangan-
yika to include the languages Fipa and Rungu. The next
two single language areas are found in central Tanzania,
covering the languages Kimbu and Nyiha. The last three
single language areas are located in the northeastern

corner of Tanzania; the languages that are included in-
dividually here are Isanzu, Zanaki, and Ikizu.

The last three areas formed by the isogloss of a
Proto-Bantu form, i.e. PB *nùní, are all located in the
southern half of Tanzania. One is a multi-language is-
land which is found along the Mozambique border and which
includes the Makonde and Makua languages.

The first of the single language islands is in
central Tanzania; it covers the Kisangu language only.
The last isogloss area for PB *nùní is located along the
southeastern shore of Lake Tanganyika. It covers the
Fipa language and overlaps with the island for the form
PB *nyùnì.

The isogloss for RF BONGU outlines an area in
central Tanzania which includes the Mbunga, Pogoro, and
Ndamba languages (see Figure VII).

2) UNGUZA

3) ZIWA

4) ISHI

5) TENGENEZA

6) ARDHI

7) SANA

8) TISA

9) KWENDA

10) BARABARA

11) REFU

12) MOSHI

III. CLEAR-CUT GROUP:

It is the clear-cut group of maps which best exemplifies patterns of innovation. It is this group of isogloss maps, therefore, which best supplies us with our classifications for the languages under study.

Detailed descriptions of the isogloss maps outlined for nineteen different lexical items will be provided in the following pages.

1) USO, "face": The Proto-Bantu form PB *$c\grave{1}\acute{o}$ is found in several areas of Tanzania. It is used by the KiHaya group in the northwest, the Nilyamba in central Tanzania, in all of the East Coast languages except Matumbi, and by the Hehe, Bena, and Pogolo groups.

The isogloss areas of PB *$c\grave{1}\acute{o}$ are separated by the isogloss area for another Proto-Bantu form, PB *$c\grave{1}\acute{u}$. The form PB *$c\grave{1}\acute{u}$ is used throughout central Tanzania, by the Sukuma group, by some of the Lake Victoria group, the Gogo, Kɔnɔngɔ, Fipa, and Rangi groups, and, in the south, by the Yao group.

The Fipa group, located at the southern tip of Lake Tanganyika, along with dialects along the Zambia and Malawi borders, the Shubi and the Hangaza, and the Nyanja group, found along the southern border of Tanzania, use

the third Proto-Bantu form PB *cú. Innovations are found
scattered across the country; the RF KIHANGA is found in
two areas at opposite ends of Tanzania separated by two
Proto-Bantu forms (i.e. PB *cló and PB *clú); it is
used by the Ha in the west of Tanzania and by the Ngulu
and Zigula groups on the East Coast. The Chagga are split
into two groups using different referential forms: RF
KISANGU is used in the north, and RF KYAMU, in the south.
The RF ENI is used by the Sango, Wanji, Nyiha, and Pimbwe
speakers, all of whom are located in west-central Tanza-
nia. The RF MIHU is used by the Ngoni group in the south-
west along Lake Nyasa.

2) MAWINGU, "clouds": This lexical item is re-
presented in our data by three Proto-Bantu forms, PB *tù,
PB *bìŋgù, and PB *dùndè, and by two referential forms,
RF SARU and RF BUKI.

In this particular case, the referential forms
each make a simple, small isogloss area on the map of
Tanzania, while the Proto-Bantu forms are represented by
several large isogloss areas throughout Tanzania. Let us
first look at these clear-cut single isoglosses created
by the referential forms: the referential form RF SARU
draws its isogloss along the border of Kenya in northern
Tanzania as well as the southern shore of Lake Victoria;
it includes the languages Sweta, Kuria, Suba, Kabwa,

Zanaki, Simbiti, Ngurimi, and Ikizu. The other single
isogloss formed by a referential form is the RF BUKI iso-
gloss, which is located among the Chagga dialects; its
area overlaps with two other isogloss areas.

The most important Proto-Bantu isogloss area is
created by PB *dùndè, which covers over half of Tanzania
and overlaps with both of the other Proto-Bantu forms.
The main area of attestation of the form runs from the
southern shores of Lake Victoria to the Mozambique border
and from the Burundi border to the Kenya border, but it is
split by the non-Bantu languages Masai, Sandawe, and
Iraqw and by the small area of the form PB *tù. The lan-
guages encompassed by this extensive area are so numerous
that only the numbers will be listed here, in order to
save space; they are: 3, 17, 38--45, 47--53, 58, 65, 67
--71, 77, 78, 80--82, 84, and 90. The other small iso-
gloss area which is by itself on the southern East Coast
covers the following languages: Ndengereko, Matumbi,
Mwera, and Makonde. The last area for this form consists
of a single language, Mbunga, and overlaps with the iso-
gloss for PB *bìŋgù, located in south-central Tanzania.

The next group of isoglosses is created by the
Proto-Bantu form PB *tù, which has formed four distinct
areas. The first one is located on the northwestern bor-
der of Tanzania, along the Burundi, Rwanda, and Uganda

frontiers; it includes the following languages: Shubi, Hangaza, Kiha, Nyambo, and Haya. Here it must be noted that the Kiha group also uses PB *dùndè. The second major area for this root is found in central Tanzania; it separates the areas for the other two Proto-Bantu forms and includes the languages Sagara and Hehe. The third area partially overlaps with an innovation and with another Proto-Bantu form, i.e. with RF BUKI and PB *bìŋgù, respectively. This isogloss includes all of the Chagga dialects, along with the Meru and Gweno speaking areas. The last isogloss defines an island inside the enormous area for PB *dùndè; it covers the area of the Kirangi speakers in central Tanzania but is also surrounded by the Masai and Sundawe speakers (i.e. speakers of non-Bantu languages).

The last set of isoglosses are from PB *bìŋgù; this set consists of four areas. The first one is situ-ated on the western border of Tanzania, along the Zambia and Malawi borders and north of Lake Nyasa; it includes the following languages: Nyiha, Malila, Ndali, Kinga, Safwa, Nyakyusa, and Rambia. This area overlaps with the area for Proto-Bantu PB *dùndè at the Kinga speaking area. The second area runs from the East Coast south-westward to the Mozambique border at the Ngoni speaking area. The languages found in this area are Luguru, Doe, Kwere,

Ngulu, Kami, Zaramo, Kutu, Mbunga, Ndamba, Pogoro, and Ngoni. This area overlaps three times with the PB *dùndè area; the languages which are found in the area defined by both isoglosses are Ngoni, Ngulu, and Mbunga.

The third isogloss area is found on the East Coast, south of the Kenya border; it includes the languages Segeju, Digo, and Bondei. In addition, it overlaps with the isogloss for PB *dùndè at the Bondei speaking area.

The last area is a small one which is located among the Chagga dialects. It overlaps with the area of PB *tu and with the area of RF BUKI.

3) EUPE, "white": This lexical item was translated in eight different ways: four of the words were traceable back to the Proto-Bantu proto-types PB *jédù, PB *yed, PB *yédù, and PB *yédù. Three of the words were made referential forms, and one was the obvious borrowing from Swahili, eupe, which we have labelled "loanword" (LW).

Each of the translations has a well-defined isogloss area: PB *jédù is a residue from the Proto-Bantu form which is found only in Rangi. The area for PB *yed is split into two clear sections at opposite ends of the country, in the northwestern corner (i.e. the Kiha, Haya,

and Kerewe groups) and in the south along the Mozambique
border (i.e. the Yao and Makua groups). The isogloss
area for PB *yédù covers the major part of the east-
central part of Tanzania, the Zigulu group on the East
Coast, and half of the Lake Victoria languages, all of
which use this form. This particular area is surrounded
by two innovations, RF PE and RF RABU. The last Proto-
Bantu form, PB *yédù, is found in two isogloss areas--a
small one in the west (i.e. Pimbwe) and another area
that is shared with PB *yédù, in central Tanzania (i.e.
Sangu, Bena, Wanji, and Kinga groups). The most impor-
tant innovation, RF PE, is found throughout the Greater
Unyamwezi area and in Kiha. The second referential form,
RF RABU, is located in the eastern sector of the Lake
Victoria groups. The third referential form, RF (L)WA,
is found in the Chagga group area, in Pare, and in Gweno.
Isogloss areas for the LW eupe are located at the south-
ern line of the area delineated by the isogloss for PB
*yédù (i.e. the Segeju, Bondei, Matumbi, Mkunga, Pogoro,
and Ndengereko groups).

4) PANDA, "to cultivate": This lexical item was
traced back to two Proto-Bantu forms and three referen-
tial forms.

The split between the Proto-Bantu forms is as
follows: one area runs from north to south, while the

other runs from east to west. The form PB *bíad is found
in the extreme northwestern corner of Tanzania, where it
includes the languages Nyambo, Haya, and Kerewe; it is
also found in central Tanzania, where it encompasses the
Lwira, Kisangu, Hehe, Bena, Pangwa, Kinga, Wanji, Nyiha,
Malila, Safwa, Nyakyusa, and Rambia languages; finally,
this Proto-Bantu form is used by the Makua and Nyanja
speakers, who are located at the extreme southern part of
Tanzania. The second Proto-Bantu form, PB *pànd, is
found all along the East Coast of Tanzania; it is also
found in four little islands in central and west Tanzania:
it covers the languages Bende and Rungwa in the west and
the Nyiramba and Kirangi languages in central Tanzania.
The last important area for PB *pànd is the Ngoni group,
along with the Yao group, which are located near the eas-
tern shore of Lake Nyasa in the southwestern portion of
Tanzania.

The first referential form RF WAYA is found among
the Chagga group on the Kenya border. The second refer-
ential form, RF TELA, is split into two isogloss areas--
a large one, the Ha group which is found along the Burundi
border, and the Sonjo language, a small island among the
Masai speakers. The third referential form RF YAMBA forms
a large area in the north-central portion of Tanzania;
it includes the languages Zinza, Jita, Ruri, Kabwa,

Sizaki, Sukuma, Nyanyembe, and Sumbwa.

5) <u>BIA</u>, "beer"; This lexical item is represented in Tanzania by two Proto-Bantu forms, two referential forms, and two loanwords. The areas defined by the isoglosses created by these roots are very complex, and often as many as three areas overlap at one language area.

The first Proto-Bantu form is PB *dògù, the isogloss of which forms a single area along the Burundi border and covers the Shubi, Hangaza, and Kiha languages. The second Proto-Bantu form is PB *yàdúa; this root created five isogloss areas, three of which are multi-language and two of which are single language areas. The first large multi-language area is found in the northwestern corner of Tanzania and all along the southern shore of Lake Victoria; it consists of the languages Kiha, which overlaps with the area defined by the isogloss for PB *dògù, Zinza, and Sukuma--the latter two overlap with the area created by the isogloss for the loanword LW <u>BIA</u>.

The other languages in this area only use the Proto-Bantu root; they are: Nyambo, Haya, Sizaki, Jita, Ruri, Kwaya, and Kabwa. The second large area formed by the isogloss for PB *yàdúa is found in west-central Tanzania; it consists of four languages, three of which use only this root--they are Bende, Lwira, and Kɔnɔngɔ; the

area of the Rungwa speakers overlaps with the area for the LW BIA. The third multi-language area of this set is located in southwestern Tanzania along the Malawi border and the northern shore of Lake Nyasa; the languages included in this area are Nyiha, Malila, Ndali, Rambia, Nyakyusa, and Wanji. These last two overlap with the area defined by the isogloss for LW BIA.

The single language areas are found at opposite ends of Tanzania. One is along the Kenya border in northeastern Tanzania, in the Nguri territory; the other is in the deepest southeastern corner of Tanzania and covers the Makonde area.

The areas bounded by the isogloss for RF IMBI are located in the eastern half of Tanzania. A multi-language area is found in central Tanzania; it covers the languages Gogo, Hehe, Pogoro, Ndamba, Bena, and Kimanda. The LW BIA areas cover different sectors including the various languages Kisangu, Pangwa, Kinga, Ngoni, Kimatengo, and Mpoto. The Wanji language used three different forms, the Proto-Bantu form PB *yàdúa, the loanword LW BIA, and the referential form RF IMBI. Two other single language areas, which cover the Mbunga and the Matumbi languages, are found on the eastern shore of Tanzania and are outlined by the isogloss for LW BIA.

The areas defined by the isogloss for RF WARI are

both overlapped with the LW BIA areas. The first RF WARI
area is located along the Kenya border and includes most
of the Chagga dialects. The second area for RF WARI is
an island inside the area outlined by the isogloss for
LW BIA in east-central Tanzania; it includes the Luguru
speakers.

There are only two single language areas delinea-
ted by the isogloss for LW POMBE; both are located in
eastern Tanzania. The first one is on the coast and
covers the Bondei speakers; the second area overlaps
with LW BIA in east-central Tanzania, covering the Ngulu
group.

The areas outlined by the isogloss for LW BIA are
are all over Tanzania. The first one covers the Greater
Unyamwezi territory, i.e. the Zinza, Kerewe, Sumbwa,
Sukuma, Nyanyembe, Nyiramba, and Isanzu languages. The
second area is found along the southeastern shore of Lake
Tanganyika and includes Pimbwe, Rungwa, and Fipa. The
third area is located in west-central Tanzania and con-
sists of the Kisangu, Wanji, Nyakyusa, Pangwa, and Kinga
languages. The fourth area covers the southern portion
of Tanzania and includes Kingoni, Kimatengo, Sutu, Mpoto,
Nyanja, Yao, Makua, Mwera, and Matumbi. The fifth area
stretches all along the East Coast and includes the fol-
lowing languages: Mbunga, Ndengereko, Kutu, Sagara,

Zaramo, Luguru, Doe, Ngulu, Zugua, Shambala, Digo, Pare, and Taita. The sixth area is a single language area which includes only the language Sonjo. The seventh area is found along the southeastern shore of Lake Victoria and includes only the language Ikizu. The eighth area, as well as the ninth, is located around Lake Victoria; these two areas are each single language areas and encompass the Suba and Zanaki languages.

6.) PIKA, "to cook": The concept of cooking was translated by six different words, five of which can be traced back to Proto-Bantu forms; the sixth is a referential form. The Proto-Bantu forms are PB *tumb, PB *(yì)pík, PB *téék, PB *tédík, and PB *dug; RF KOD is the referential form.

The first set of three areas is formed by the isogloss for PB *tumb. Two of these areas are found along the Burundi and Uganda borders. The languages of the first area are Shubi and Kiha; these languages are also part of another area, that defined by the isogloss for PB *téék. The second isogloss is formed by the Nyambo and Haya languages. The last area of this set is a small one found on the southeastern shore of Lake Victoria; it is formed by the Suba speakers.

The second set of five areas is bounded by the isogloss for the Proto-Bantu form PB *(yì)pík. It

contains two multi-language areas and three single language areas. One of the single language areas is found on the East Coast and covers the Segeju language. A second single language area is located in south-central Tanzania and is formed by the Pogoro language. The last single area outlined by the isogloss for PB *(yì)pík is found along the Mozambique border and is formed by the Nyanja language.

The first of the multi-language areas bounded by this isogloss is found on the East Coast; it covers the languages Bondei, Zigua, Kaguru, Ngulu, Luguru, and Kami. The speakers of Luguru also used the Proto-Bantu form PB *tédík.

The third set of four areas defined by the isogloss for the Proto-Bantu form PB *téék is found across the northern part of Tanzania. The largest area covers the languages of the northwestern section of Tanzania-- these languages are: Shubi, Hangaza, Kiha, Zínza, Sumbwa, Nyanyembe, Lwira, Kɔnɔngɔ, Kimbu, Bende, Pimbwe, and Fipa. The other large area is located along the southern shore of Lake Victoria; the languages of this isogloss are Kerewe, Jita, Ruri, Sweta, Kabwa, Zanaki, and Simbiti. The third area delineated by the form PB *téék isogloss is to be found among the northern Chagga languages along the Kenya border. The last isogloss for

this Proto-Bantu form is located on the Kenya border as well and includes the languages Taita, Pare, and Shambala.

There are four areas outlined by the isogloss for the Proto-Bantu form PB *tédík. Here we find three single language areas and one large multi-language area. The large area covers almost all of the southeastern half of Tanzania; it includes the following languages: Gogo, Luguru, Zaramo, Sagara, Hehe, Mbunga, Ndengereko, Kisango, Ndamba, Matumbi, Nyiha, Malila, Wanji, Kinga, Pangwa, Bena, Kimanda, Kingoni, Kimatengo, Sutu, Mpoto, Yao, Mwera, Makonde, and Makua. The three single areas are located at a distance from the main isogloss; they are: (1) the first area is located in the northern corner of Tanzania and includes the sector covered by the Ikizu speakers; (2) the second area is found along the southeastern shore of Lake Nyasa and covers the Rungu language; (3) the third area is located on the East Coast and includes the Doe language.

The last set of three areas bounded by the isogloss for a Proto-Bantu form are those for PB *dug. The first area is located on the southern shore of Lake Victoria and includes the Sizaki, Isanzu, and Sukuma languages. The second area is found between the territories of the Masai and the Iraqw speakers--it includes the Mbugwe language. The last area delineated by the isogloss

for this form is found in west-central Tanzania and covers the territory of the Rungwa language speakers.

The single area bounded by the isogloss for the referential form RF KOD is located on the Kenya border. It includes the Chagga dialects and the Meru language.

7) MAWE, "stone": There are two Proto-Bantu forms and three referential forms for this lexical item. The first Proto-Bantu form is PB *bùè, which covers two-thirds of the country from the west to the east-central portion, as well as a small island in southern Tanzania, the Matengo dialect. The other Proto-Bantu form, PB *gùè, is found along the southern bank of Lake Tanganyika, an area which includes the groups Fipa, Rungu, Rungwe, and Kɔnɔngɔ; in the portion of central Tanzania known as Greater Unyamwezi, i.e., the Nyaturu, Iramba, Isanzu, and Irangi groups; on the southeastern coast, in Matumbi country.

Both Proto-Bantu forms occur simultaneously along the East Coast among the Zigula and Ngulu groups, along the Kenya border among the Chagga group, and in the southeast--on the northern tip of Lake Nyasa--among the Safwa and Ndali dialects.

The referential forms are well-defined and localized: RF GANGA is found in central and southern Tanzania, among the Hehe and Sangu, the Ngoni group, the Bena,

the Yao, Mwera, and Makonde dialects. This innovation
also separates three dialects (Matengo, Pogoro, and Idam-
ba) which use the Proto-Bantu form PB *bùè from the major
isogloss area of PB *bùè. A second innovation, RF BADE,
is used by the Haya, Nyambo, and Sumbwa groups. The
third innovation, RF GINA, is a minor one and is only
used by a small group around Lake Victoria, the Jita, and
the Suba groups.

8) NYOTA, "star": This word was represented by
eight different roots, seven of which were found to be
Proto-Bantu forms and one of which is a referential form.
The Proto-Bantu forms are PB *tondo, PB *jota, PB *tóndùà,
PB *tóndùè, PB *tàndá, PB *yédi, and PB *yényèdí; the
referential form is RF SONDA.

The only single language bounded by the isogloss
for PB *yédi is found in Kisangu, and this area is a res-
idue. The other single area, outlined by the isogloss
for the Proto-Bantu form PB *tàndá, is found on the sou-
thern shore of Lake Tanganyika, covering the languages
Fipa and Rungu. The other five Proto-Bantu forms are
usually spread over Tanzania in all directions. The
areas defined by the isoglosses for PB *jota are: (1)
all the languages along the eastern shore of Lake Victo-
ria, and (2) a large area which includes the east-central
languages Zaramo, Kutu, Pogoro, and Mbunga. Small areas

are found along the northern East Coast in one Chagga
dialect, in Sonjo, Segeju, Digo, and Bondei; in south-
east Tanzania, a small area covering the Matumbi languages
also occurs. There are four small isoglosses in central
Tanzania; the languages using PB *jota are Isanzu, Mbug-
we, Kimbu, and Rimi. The last area formed by this Proto-
Bantu form is in the southwestern portion of Tanzania,
north of Lake Nyasa; the languages bounded by this iso-
gloss are Nyiha and Safwa. As regards the areas defined
by the isogloss for PB *tóndùà, one large area covers the
languages along the Zambia-Malawi border and north of
Lake Nyasa--i.e. Nyiha, Malila, Ndali, Rangwa, Nyakyusa,
and Rambia. Another area is found along the Mozambique
border, including the languages Yao and Nyanja. A small
area occurs in east-central Tanzania in the Ndengereko
group. The last large area covers southeast Tanzania,
including the Matumbi and Makonde languages.

The next set of areas is defined by the isogloss
for PB *tondo. The largest area of the form is found
along the northeastern shore of Lake Nyasa, including the
languages Kimanda, Kingoni, Kimatengo, and Mpoto in this
area. A couple of small areas are defined by the iso-
glosses along the Kenya border, each area including only
one language--these are the Gweno and Pare areas. Anoth-
er isogloss area is located along the East Coast and

includes the following languages: Doe, Kwere, Ngulu, Luguru, and Kami. The last area for this Proto-Bantu form is in central Tanzania, and it covers the Mbunga group.

The next Proto-Bantu form, PB *tóndùe, has three areas. The first one is located north of Lake Nyasa and overlaps with the Proto-Bantu PB *tóndùà area. The languages that are found in this area are Bena, Pangwa, Kinga, and Wanji. One single area defined by the same isogloss, Shambala, is found on the Kenya border, while another single language area, Makonde, is to be found on the Mozambique border and the shore of the Indian Ocean.

The last set of isoglosses are for PB *yényèdí. The largest isogloss for this area is found on the Burundi and Rwanda borders and on the southern shore of Lake Victoria. The languages included in this area are Kiha, Shubi, Hangaza, Zinza, and Kerewe. The second important area includes the Chagga group and Meru, which are located along the Kenya border. The last two single language areas for this Proto-Bantu form are found in central Tanzania; these are (1) Kirangi and (2) Sagara.

The large single area delineated by the isogloss for RF SONDA covers the languages Sizaki, Sukuma, Nyanyembe, Sumbwa, Lwira, Kɔnɔngɔ, Nyiramba, and Rungwa. This area covers about one third of Tanzania, namely, the north-central portion of the country.

9) PUA, "nose": This lexical item is translated by eight different words, five of which were traced back to Proto-Bantu forms, and three of which, to referential forms, labelled "RF". The Proto-Bantu forms are PB *pùdà, PB *pùdò, PB *pùnò, PB *júdù, and PB *yídò. The referential forms are RF CINDO, RF ENYONGO, and RF MENGELO.

The Proto-Bantu form PB *pùdà forms an enormous area which covers almost the entire eastern half of Tanzania. The languages involved include the Chagga group, Gweno, Taita, Pare, Kaguru, Nyiramba, Rimi, Isanzu, Gogo, Shambala, Bondei, Digo, Zigua, Kwere, Zaramo, Ngulu, Luguru, Kami, Kutu, Sagara, Mbunga, Bena, Ndamba, Pangwa, Kinga, Wanji, Ndali, Safwa, Kisangu, and Kimbu. The second isogloss area defined by this Proto-Bantu form is found along the Mozambique border and the southeastern coast and includes the languages Mwera, Makonde, Yao, and Makua. In addition to these, there are two single language areas in central Tanzania, both of which are surrounded by non-Bantu languages. The first is found between the Masai and the Iraqw and covers the Kirangi language speakers. The second is located between the Masai and the Sandawe; the Mbugwe language forms this isogloss area.

The second set of isogloss areas is defined by PB *pùdò. This set consists of four areas, two multi-

language areas and two single language isogloss areas. The first of the multi-language isogloss areas is located on the northern border of Tanzania along Kenya; it includes all of the Chagga dialects. The second multi-language isogloss area is found on the northern shore of Lake Nyasa and in the west-central sector of Tanzania; it includes Nyiha, Malila, Ndali, and Nyakyusa. The single language isogloss areas are both found on the East Coast; these include the languages Matumbi and Ndengereko.

The following three isogloss areas are defined by PB *pùnò: The first one includes the languages Rungwa, Fipa, and Rungu; it is located on the southeastern shore of Lake Tanganyika. Furthermore, this isogloss area overlaps with an innovation in the Rungwa language. The second isogloss area is found on the Malawi border and includes the two languages Nyiha and Rambia. The last area of this PB *pùnò form is found all along the eastern shore of Lake Nyasa--the languages involved here are Kimanda, Mpoto, and Nyanja.

The next group of isoglosses is based on the occurrence of the form PB *júdù. The first isogloss area is located on the Burundí-Rwanda border and is composed of the Kiha, Shubi, and Hangaza languages. The other isogloss area is located on the southern shore of Lake

Victoria and includes the Sizaki and Sukuma languages.
The Sukuma area is also part of the isogloss area for
RF CINDO.

The last two isogloss areas defined by a Proto-
Bantu form are those based on the occurrence of the form
PB *yídò. The larger area is found along the Kenya bor-
der and in northern Tanzania and includes the Ikizu and
Ngurimi languages. The single language isogloss area is
located in west-central Tanzania and covers the area of
the Kɔnɔngɔ language speakers. It overlaps with the area
for RF CINDO.

The RF CINDO isogloss area is a single, large
area which covers the western corner of Tanzania along
the Rwanda and Uganda borders, as well as the Greater
Unyamwezi territory; the languages involved here are
Nyambu, Haya, Zinza, Sumbwa, Nyanyembe, Lwira, Kɔnɔngɔ,
Rungwa, and Sumbwa. This isogloss area overlaps with
those of three other isoglosses: the Sumbwa area is
shared with that of the isogloss for PB *júdù, the Kɔ-
nɔngɔ area is shared with that of the isogloss for PB
*yídò, and the Rungwa area is also part of the isogloss
area for PB *pùnò.

The RF ENYONGO forms a series of small isoglosses
along the southeastern shores of Lake Victoria. The lan-
guages included here are Jita, Ruri, Kwaya, and Kabwa.

The last innovation is the referential form RF
MENGELO, which forms two isoglosses, one of which defines
an island within the area for PB *pùdà--this island is
formed by a single language, Hehe. The second isogloss
area is found in the southwestern portion of Tanzania;
it is formed by the languages Ngoni, Pangwa, and Kinga.
The last two languages are also part of the isogloss area
for PB *pùdà (see Figure VIII).

10) KONDA, "to be thin": This lexical item is
represented by two Proto-Bantu forms and four referential
forms. The Proto-Bantu forms are PB *yónd and PB *kond;
the referential forms are RF GANDA, RF SOK, RF KOMB, and
RF TOBA.

The first set of five areas is delineated by the
isogloss for PB *yónd; two of these are multi-language
islands, and the other three are single language areas.
One of the multi-language areas is located on the south-
eastern shore of Lake Victoria and includes the languages
Jita, Kwaya, and Zanaki. A single language area is also
found to the east of the previous area; it includes the
Ikizu language. In the northeastern sector of central
Tanzania there is another single language island which
covers the Kirangi language. Another multi-language area
is located along the southeastern shore of Lake

Tanganyika and includes two languages, Fipa and Rungu. The last of the areas bounded by the isogloss for PB *yónd is located along the Mozambique border and covers the Nyanja language.

The isogloss for PB *kónd forms nine separate language areas throughout Tanzania; four of these are multi-language areas, while the other five are single language isogloss areas. The first multi-language area is located along the East Coast in the northern sector of Tanzania and includes the Segeju and Digo languages. The second of the multi-language areas is located on the Kenya border and encompasses a third of the Chagga dialects. The third multi-language area is found in south-central Tanzania; it includes the three languages Pogoro, Ndamba, and Mbunga. The last area overlaps with an island for RF KOMB. The last of the multi-language islands bounded by the isogloss for PB *kónd is located in west-central Tanzania and includes the Bende, Pimbwe, and Lwira languages. The Lwira speakers also use the form RF GANDA; thus, that portion of the isogloss area for both forms overlaps.

Three of the single language isogloss areas are found in the northern half of Tanzania. One of these overlaps with the island for RF GANDA--it is the island covering the territory of the Sukuma speakers. The other

two isogloss areas found in this part of the country cover the languages Sumbwa and Mbugwe. The next island of a single language representing PB *kónd covers the Kaguru speaking area. The last isogloss area for this form stretches along the East Coast; it covers the Ndengereko language and overlaps with the isogloss island for RF KOMB.

A set of three areas is bounded by the isogloss for the referential form RF GANDA. One large area covers two-thirds of the southern half of Tanzania and includes the following languages: Lwira, K n ng , Kimbu, Gogo, Sagara, Kisangu, Bena, Pangwa, Kinga, Ndali, Safwa, Nyakyusa, Rambi, Kimanda, Kingoni, and Yao. The Lwira speakers also use the form PB *kónd, and the territory of the Gogo speakers is also part of the isogloss area for RF SOK. The second island defined by the isogloss for RF GANDA is found along the southern shore of Lake Victoria and includes the Sizaki and Sukuma languages. The latter overlaps with the area bounded by the isogloss for PB *kónd. The last area from this set is located on the southeastern coast of Tanzania and includes the Mwera and Yao languages.

The next set of four islands is outlined by the isogloss for RF SOK; three of these are multi-language areas. The last isogloss area of this set is found in

central Tanzania; it covers the Gogo language, which is also encompassed by the area for RF GANDA. The first of the multi-language areas is located in the middle of the East Coast and includes the languages Kwere, Zaramo, Doe, Luguru, Kami, and Kutu. The second of these areas is found along the Kenya border and the East Coast; this includes the Shambala and Bondei languages. The last of these multi-language areas is on the Kenya border; it includes a small group of the Chagga dialects.

The isogloss for RF KOMB delineates four areas, all of which are located in the southern half of Tanzania. The only multi-language area, and also the most southern, is to be found along the eastern shore of Lake Nyasa; it includes the Kimatengo and Mpoto languages. Of the other three single language isogloss areas, two are found on the East Coast; the island covering the Ndengereko language overlaps with the island defined by the isogloss for the form PB *kónd; the other area covers the Matumbi language.

The last area is bounded by the isogloss for RF TOBA and stretches across the languages found in northern Tanzania between the eastern shore of Lake Victoria and the Kenya border; these languages are Sweta, Kiroba, and Ngurimi.

11) <u>PANDE</u>, "piece": This lexical item is repre-
sented by two Proto-Bantu forms; these forms are PB
*<u>pàndé</u> and PB *<u>bádà</u>.

As regards the isoglosses for PB *<u>pàndé</u>, the ma-
jor area is found in the western portion of Tanzania; it
includes the following languages: Kerewe, Sukuma, Nya-
nyembe, Sumbwa, Rimi, Bende, Lwira, Kɔnɔngɔ , Rungwa,
Fipa, and Rungu. This area overlaps with the northern
isogloss area of PB *<u>bádà</u> in the Sukuma territory. The
second important area for PB *<u>pàndé</u> covers the east-
central and southwestern portions of Tanzania; the lan-
guages that are part of this area are Kaguru, Kwere, Doe,
Ngulu, Luguru, Kami, Kutu, Sagara, Mbunga, Pogoro, Ndam-
ba, Nyiha, Malila, Nyakyusa, Pangwa, Kimanda, Kingoni,
Kimatengo, Mpoto, Nyanja, and Yao. This isogloss area
shares several languages with the isogloss area for PB
*<u>bádà</u>--these languages are Nyiha, Malila, Nyakyusa, and
Pangwa. The third important isogloss area is found along
the southeastern coast of Tanzania; the languages in
this area are Matumbi, Mwera, and Makonde. There are five
other small areas for PB *<u>pàndé</u>. Three of these are
single language areas: (1) the Ndengereko language speak-
ing area, on the East Coast; (2) the Pare language areas
along the Kenya border; and (3) the Kirangi language
area, found between the non-Bantu languages in the east-

central sector of Tanzania. The other two areas are multi-language areas: (1) the first is located among the Chagga languages along the Kenya border, and (2) the other is located along the northeastern coast of Tanzania and includes the languages Segeju, Digo, and Bondei.

The Proto-Bantu form PB *bádà areas are not as large as the areas outlined for PB *pàndé. The most impressive area of this group is located along the southern shore of Lake Victoria; the languages that are included in this isogloss area are Zinza, Kwaya, Ruri, Zanaki, Kabwa, Ikizu, Ngurimi, and Sukuma, which is also shared by the PB *pàndé isogloss area. The second multi-language isogloss area is found in the western sector of Tanzania and the northern tip of Lake Nyasa; as mentioned above, it is partially shared by the PB *pàndé isogloss area. The languages of this PB *bádà area are Nyiha, Malila, Wanji, Nyakyusa, Kinga, and Pangwa. The last area of this isogloss, which includes several languages, is located among the Chagga language group; it includes the northern half of the Chagga languages and the Gweno language. This isogloss also overlaps with one of the isogloss areas for the other root. PB *bádà also has three single language isogloss areas; they are found: (1) on the East Coast, in the region occupied by the speakers of the Zaramo language; (2) along the eastern sector of

the Kenya border, in the area formed by the Shambala lan-
guage; (3) the last area, in the west-central portion of
Tanzania, covering the Kimbu speakers.

12) JUA, "sun": This lexical item has been trans-
lated by three Proto-Bantu forms and two referential
forms. The Proto-Bantu forms are PB *júbà, PB *cúbà, and
PB *yúbà; the referential forms are RF LIMI and RF IZUM-
BA.

The isoglosses for PB *júbà outline nine areas.
There are five islands in the southern half of Tanzania,
two of which are multi-language areas and three of which,
single language areas. These areas are: (1) the Nyanja
language area; (2) the Kimanda language; (3) the Mbunga,
Pogoro, and Ndamba languages; (4) the Kisangu, Kinga,
and Wanji languages; and (5) the Nyiha language terri-
tory. The first four areas are single form isoglosses;
the fifth area overlaps with the isogloss area for PB
*cúbà. The last four areas for this Proto-Bantu form are
located in the northeastern section of Tanzania; two of
these are single language islands, covering the Mbugwe
and Kaguru languages. The other two areas cover two lan-
guages each, i.e. the Segeju and Digo languages, and the
Nyiramba and Rimi languages.

The next Proto-Bantu form, PB *cúbà, exhibits
seven isogloss areas. The largest island formed by this

isogloss covers approximately one half of the eastern sec-
tion of Tanzania; it includes the following languages:
Pare, Shambala, Bondei, Zigua, Ngulu, Doe, Kwere, Zaramo,
Kami, Luguru, Kutu, Sagara, Ndengereko, Gogo, Hehe, Bena,
and Pangwa. There are also two small islands in southern
Tanzania which include the Matumbi and Makua languages.
The next isogloss area is located on the northwestern
shore of Lake Nyasa and covers the Ndali and Nyakyusa
languages. Another isogloss area is found in the south-
central portion of Tanzania, for the Nyiha language.
This island overlaps with the isogloss areas for PB *yùbà
and PB *júbà, as well as for the referential form RF
IZUMBA. Two small islands formed by the isogloss for PB
*cuba are located in west-central Tanzania; one island,
which covers the Rungwa language, overlaps with the iso-
gloss area for PB *yúbà; the second island in this area
includes the Bende language. The next large isogloss
area is located along the Burundi and Rwanda borders and
includes the languages Shubi, Hangaza, and Kiha. The
last area defined by the isogloss for PB *cùbà is located
on the southeastern shore of Lake Victoria and includes
the Jita, Ruri, and Kwaya languages.

The following set of areas is defined by the iso-
gloss for PB *yúbà: The major isogloss area stretches
over the northwestern sector of Tanzania and covers the

Nyambo, Haya, Zinza, Kerewe, Sumbwa, Nyanyembe, Lwira, Kɔnɔngɔ, Pimbwe, and Rungwa languages. The last language also shares this area with an isogloss island for PB *cúbà. The next multi-language area outlined by the PB *yúbà isogloss is located on the northeast border of Tanzania and includes the following languages: Kuria, Sweta, Kabwa, Zanaki, Ikizu, and Kiroba. The other multi-language area is located on the southern border of Tanzania and the western shore of Lake Nyasa; it covers the Kingoni, Kimatengo, Sutu, Mpoto, and Yao languages. The next multi-language island bounded by the isogloss for PB *yúbà is also found along the southern border of Tanzania; it includes the languages Yao, Mwera, and Makonde. The last of the multi-language areas delineated by this isogloss is found along the Kenya border and encompasses Gweno and half of the Chagga dialects. There are also two single language islands found in the northeastern part of Tanzania; the Sonjo and Isanzu languages form these islands.

The area bounded by the isogloss for the referential form RF LIMI is located along the southeastern shore of Lake Victoria. It includes the Sizaki and Sukuma languages.

The last isogloss area is formed by the RF IZUMBA isogloss and is located in the south-central

sector of Tanzania; it covers the Safwa and Nyiha lan-
guages. The latter, as mentioned above, overlaps with
the isogloss areas for PB *júbà, PB *cúbà, and PB *yúbà
(see Figure IX).

.13) NYWELE, "hair": This word was translated in-
to the languages under study by eight different words,
seven of which were traced back to Proto-Bantu forms.
These Proto-Bantu forms are: PB *cùkì, PB *yuídí, PB
*gúídí, PB *nyuídí, PB *nyuédé, PB *cítí, and PB *cici.
The single referential form for this lexical item is RF
YUNJU.

The two areas bounded by the isogloss for PB
*cùkì are found in the northern section of Tanzania on
both the western and eastern shores of Lake Victoria, and
they include the following languages: one area bounds
the Nyambo, Haya, Zinza, and Kerewe languages, while the
other area bounds only Kuria.

The next set of five areas is defined by the iso-
gloss for PB *yuídí. Two of these areas are small, single
language islands located on the eastern shore of Lake
Victoria, including the languages Ruri and Suba. The
three multi-language islands delineated by this isogloss
are all located in the eastern section of Tanzania. Two
of these groups are on the East Coast: (1) Bondei, Zigua,

and Ngulu; and (2) Zaramo and Kutu. The third isogloss area includes the group of Chagga dialects.

There are three islands formed by the isogloss for PB *gúídí, and all of these are multi-language areas. A large island is found along the southern and southeastern shores of Lake Victoria and includes the Sukuma, Jita, and Kwaya languages. The second isogloss area is located in central Tanzania and covers the following languages: Kimbu, Gogo, Sagara, Hehe, Ndamba, and Bena. The last island is found along the Malawi border and includes the Ndali and Rambia languages.

The next Proto-Bantu form, PB *nyuídí, manifests seven isogloss areas--three are multi-language groups, and four are single language islands. The first of the multi-language areas outlined by the isogloss for PB *nyuídí is located along the Kenya border and includes the southern half of the Chagga dialects and the Gweno and Pare languages. The second of these groups is in the northeastern sector of the coast; it includes Segeju and Digo, which are overlapped by the area for PB *nyuédé. The last of the multi-language islands bounded by the isogloss for PB *nyuídí is located on the northern shore of Lake Nyasa in southern Tanzania. The languages of this area are Kinga, Pangwa, Nyakyusa, and Ngoni. The latter overlaps with the area for RF YUNJU. The four single

language isogloss areas are all located in the eastern
section of Tanzania. The languages covered by these iso-
gloss areas are Luguru, Ndengereko, Matumbi, and Mbunga.

The next set of six areas is formed by the iso-
gloss for PB *nyúédé. The larger of these islands is
found in west-central Tanzania and includes the following
languages: Nyanyembe, Lwira, Kɔnɔngɔ, Bende, Pimbwe,
Rungwa, Fipa, and Rungu. The island in central Tanzania
covers the Kisangu and Wanji speaking areas. The last of
the multi-language areas delineated by the isogloss for
PB *nyúédé are found in the northeastern portion of Tan-
zania and cover the languages Digo, Sonjo, and Mbugwe.

The Proto-Bantu form PB *cítí forms a single
multi-language isogloss area which is located in west-
central Tanzania and which covers the territory of the
Nyiha, Malila, and Safwa speakers.

The last area, provided by an isogloss for PB
*cici, is found along the Mozambique border and covers
the Nyanja language.

The referential form RF YUNJU forms an isogloss
area along the eastern shore of Lake Nyasa and includes
the Kimanda, Kingoni, and Mpoto languages.

14) NYUMBA, "house": This lexical item is repre-
sented by three Proto-Bantu forms, two referential forms,
and two locatives, which have been combined into one sub-

group. The Proto-Bantu forms are PB *jo, PB *yumbá, and·
PB *gàndá; the referential forms are RF KA and RF MUNZU;
the locatives are MO and KO.

   Proto-Bantu PB* jo forms two isogloss areas. A
large area is located around the southwest and southern
shores of Lake Victoria and includes the languages Haya,
Zinza, Sukuma, and Ruri. The Sukuma speakers also use
the form PB *yumbá, and, for this reason, the isogloss
areas of these two forms overlap over the Sukuma terri-
tory. The second area defined by the isogloss for PB *jo
is a single language area located in east-central Tanza-
nia which covers the Luguru speakers.

   The Proto-Bantu form used most often by the Bantu
speakers in Tanzania is PB *yumbá. There are four areas
delineated by the isogloss for this form. One very large
area covers more than two-thirds of Tanzania; the lan-
guages are thus too numerous to be listed here by name,
but their numbers are provided for reference: 8--10, 15,
16, 18, 22, 29, 35, 37--43, 47--50, 52--55, 58, 63, 66--
71, and 75--93. It must also be noted that this enormous
isogloss area overlaps seven different times with the
isogloss areas for RF KA and also overlaps once with a
locative form.

   The overlapping areas outlined by the isogloss
for RF KA cover the following languages: in the western

corner of central Tanzania, Kɔnɔngɔ; in south-central
Tanzania, Kisangu and Bena; in the central portion, Gogo,
Mbunga, and Doe; and in the southeastern sector, Matumbi
and Mwera. The last two areas which overlap with the
large isogloss area are found in the eastern sector of
Tanzania which covers the Meru language and in the nor-
thern part of the country which includes the Jita lan-
guage. The last three single language islands are: Nden-
gereko, the language forming the first island on the East
Coast of Tanzania; two other islands in the northeastern
sector of Tanzania, formed by the Meru and Mbugwe lan-
guages.

The last of the Proto-Bantu forms is PB *gàndá,
the isoglosses of which delineate two areas, one along
the southeastern shore of Lake Tanganyika which includes
the Rungwa, Fipa, and Rungu languages, and the second
area, covering a single language, Kutu, which is located
in the east-central portion of Tanzania.

The eleven isogloss areas for the referential
form RF KA are found in all sections of Tanzania. There
are three single language isogloss areas in Northern Tan-
zania--Kerewe, Jita, and Sizaki and Kiroba. Two areas
outlined by the isogloss for RF KA are found along the
Kenya border: (1) the Chagga dialect group, along with
Gweno, and (2) the Pare language. There are five areas

formed by the isoglosses for RF KA in central Tanzania;
the languages included in these areas are: (1) Kɔnɔngɔ;
(2) Gogo; (3) Doe; (4) Kisangu and Bena; and (5) Mbun-
ga. The last isogloss area is found in the southeastern
corner of Tanzania and covers the Matumbi and Mwera lan-
guages.

The areas formed by the isoglosses for the loca-
tive are located in four single language islands in east-
ern Tanzania; they are: in the south, the Makonde lan-
guage; in the central portion of Tanzania, Kirangi; and
in the northeast, the Ngurimi and Sonjo languages.

The last isogloss area is located along the Burun-
di border and includes the Shubi, Hangaza, and Kiha lan-
guages.

15). DOGO, "small": This lexical item is transla-
ted by three Proto-Bantu forms and five referential forms.
The Proto-Bantu forms are PB *ké, PB *too, and PB *níìní;
the referential forms are RF DEBE, RF DOKO, RF MATOMATO,
RF NANDI, and RF N(K)YWA.

The isogloss for PB *ké outlines a set of three
islands, two of which are multi-language areas; both of
these are located around the southern shore of Lake Vic-
toria--the first one includes the Nyambo, Haya, and Zinza
languages, while the second area covers the Sweta and
Kiroba languages. The last island outlined by the

isogloss for PB *ké is found in west-central Tanzania and covers the Rungwa language.

The set of three areas delineated by the isogloss for PB *toó is the largest one for this isogloss map. The first multi-language island stretches across Tanzania from the western to the eastern border and covers about two-thirds of the entire Tanzania territory; it includes the following languages: Jita, Ruri, Kwaya, Suba, Sizaki, Sukuma, Nyanyembe, Sumbwa, Lwira, Kimbu, Gogo, Kaguru, Pare, the Chagga dialects, Gweno, Shambala, Digo, Segeju, Bondei, Zigua, Kwere, Zaramo, Doe, Ngulu, Kami, Kutu, Sagara, Ndamba, Kisangu, Hehe, Bena, Nyiha, Malila, and Safwa. The second isogloss area is located along the southeastern shore of Lake Tanganyika and covers the Rungu, Fipa, and Pimbwe languages. The last of the isogloss areas for PB *toó is located between the Masai and Sandawe territories; it covers the Kirangi language.

The areas bounded by the isogloss for PB *niiní are located in central Tanzania. The multi-language island covers the Nyiramba and Rimi languages, and the single language island covers the Bende language alone.

The area delineated by the isogloss for the referential form RF DEBE stretches across the southern tip of Tanzania and includes the languages Wanji, Kinga, Pangwa, and Kingoni.

The isogloss for RF <u>DOKO</u> bounds three islands, all
of which are located in southern Tanzania; they are: (1)
an island along the eastern shore of Lake Nyasa which cov-
ers the Kimanda, Kimatengo, and Mpoto languages; (2) the
area along the southeast coast of Tanzania which covers
the Mwera language; and (3) an island found in central
Tanzania which covers the Mbunga speakers.

As regards the set of two areas outlined by the
isogloss for RF <u>MATOMATO</u>: the first of this set is a
multi-language area which is located along the Burundi
border and which includes the Kiha, Shubi, and Hangaza
languages; the second area is a single language area
which is found in west-central Tanzania and which covers
the Kɔnɔŋgɔ language.

The island defined by the isogloss for RF <u>NANDI</u>
is found along the Malawi border and includes the Nya-
kyusa, Rambia, and Ndali languages.

The isogloss area bounded by the referential form
RF <u>N(K)YWA</u> is located along the Kenya border and covers
a full third of the Chagga dialects.

16) <u>KAMBA</u>, "rope": This lexical item is repre-
sented by seven words in the Bantu languages of Tanzania.
Four of these words are traceable back to Proto-Bantu
forms; these are PB *g̀òyè, PB *g̀òdí, PB *díg̀ì, and PB

*tambo. The other three are based on the referential
forms RF SIRI and RF KUSA, as well as the loanword LW
KAMBA.

There is a set of five areas delineated by the
isogloss for PB *gòyè; three of these areas are multi-
language ones, and two are single language areas. The
first of the multi-language areas stretches across north-
western Tanzania and includes the following languages:
Nyambo, Haya, Zinza, Kerewe, Jita, Ruri, Kwaya, Sweta,
Suba, Kabwa, Sizaki, Sukuma, Nyanyembe, Kɔnɔngɔ, and Sum-
bwa. The second island is found along the Malawi border
and covers the Wanji, Ndali, Nyakyusa, and Rambia lan-
guages. The last of the multi-language areas bounded by
the isogloss for PB *gòyè stretches across southern Tan-
zania from the shore of Lake Nyasa to the East Coast; it
includes the Kimanda, Kimatengo, Mpoto, Yao, Makua, and
Mwera languages. The latter overlaps with an island for
the loanword LW KAMBA. The first of the single language
areas is found in south-central Tanzania and covers the
Mbunga language; the second is along the Kenya border
and covers the Shambala speakers.

The areas defined by the isogloss for PB *gòdí
are found in various sections of Tanzania. One is loca-
ted along the Burundi border and includes the Shubi, Han-
gaza, and Kiha languages, while another area covers a

portion of the Chagga dialects along the Kenya border. A
third island is located in south-central Tanzania and cov-
ers the Kingoni, Ndamba, and Pogoro languages. The last
island is found along the East Coast and covers the Doe
and Kwere languages.

A set of four islands is outlined by the isogloss
for PB *dígì. Three of these four islands are multi-lan-
guage ones: (1) the first is found in north-central Tan-
zania and covers the Nyiramba and Isanzu languages; (2)
the second is located in south-central Tanzania and in-
cludes the Hehe and Bena languages; (3) the last of the
multi-language areas stretches from the Masai territory
to the East Coast and covers the Zigua, Kaguru, and Ngulu
languages. The single language isogloss area defined by
the isogloss for PB *dígì is found along the Kenya border
and covers the Pare language alone.

The island outlined by the isogloss for PB *tambo
is found along the southeastern shore of Lake Tanganyika
and covers the Rungu and Fipa languages; the latter over-
laps with an isogloss area from the RF KUSA set.

The loanword LW KAMBA exhibits six isogloss areas,
all of which are located in the eastern half of Tanzania.
The first one is found along the Kenya border; it covers
the Chagga dialects. Another small island in the same
place covers the Taita speakers. The third island is

located along the northern portion of the East Coast and
includes the Digo and Segeju languages. Another area in
east-central Tanzania covers the Kami, Luguru, and Sagara
languages. A single language isogloss area in the middle
of the East Coast covers the Ndengereko language. The
last island defined by the isogloss for LW KAMBA is loca-
ted along the southern portion of the East Coast and en-
compasses the Matumbi, Makonde, and Mwera languages; the
latter overlaps with one of the islands outlined by the
isogloss for PB *gòyè.

The sole island delineated by the isogloss for RF
SIRI is located in northeastern Tanzania and covers the
following four languages: Ngurimi, Kuria, Ikizu, and Ki-
roba.

The last set of isogloss islands is defined by
the isogloss for the referential form RF KUSA. This set
has three islands which are all located in west-central
Tanzania; two are multi-language islands, while the only
single language island covers the Lwira speakers. The
first of the multi-language islands covers the Nyiha,
Malila, and Safwa speakers, while the second includes the
Kimbu, Rungwa, and Fipa languages, the latter of which
overlaps with the isogloss island for PB *tambo.

17) CHEZA, "to play": This lexical item is re-
presented by a very large number of words; we have

therefore limited our description of isogloss areas to those islands outlined by isoglosses for Proto-Bantu roots and for those referential forms which are used by more than one language, as well as the loanword LW CHEZA. The Proto-Bantu forms are PB *kìnà, PB *kínd, PB *dián, PB *bínà, and PB *yáŋg; the referential forms are RF TEMA, RF TAWANA, RF SEGIGA, and RF DAWALA.

The isogloss for PB *kínà outlines two multi-language islands, one stretching along the Burundi border which includes the Kiha, Shubi, and Hangaza languages and the second island, located along the eastern shore of Lake Nyasa in southern Tanzania, including the following languages: Pogoro, Ndamba, Bena, Pangwa, Kinga, Ndali, Nyakyusa, Rambia, Kimanda, Kingoni, Kimatengo, and Mpoto.

The next area, defined by the isogloss for PB *kínd, is found along the southeastern shore of Lake Tanganyika and includes the Pimbwe, Rungwa, and Fipa languages.

The next multi-language island is bounded by the isogloss for PB *dián; it covers the languages along the Rwanda and Uganda borders--these are Nyambo, Haya, Zinza, Kerewe, Sumbwa, and Jita; the latter overlaps with the island for PB *bínà.

The next set of four areas is delineated by the isogloss for PB *bínà. The first of these areas is

located in the northeastern corner of Tanzania and covers
the Kuria language. The second island is a multi-language
one; it is found along the eastern shore of Lake Victoria
and includes the Ruri and Jita languages; the latter
overlaps with the island for PB *díán. The third isogloss
area, for the form PB *bínà, is found in the central sec-
tor of Tanzania and covers the Kisangu language. The last
area of this set is located in east-central Tanzania; it
covers only the Kami language.

   The last set of areas defined by the isogloss for
a Proto-Bantu form is the set for PB *yáŋg. There are
three different locations: (1) one of the multi-language
areas is located in the northeastern corner of Tanzania
and includes the Sweta, Kabwa, and Kiroba languages; (2)
the next isogloss area is found in north-central Tanzania
--it covers the Nyiramba language; (3) the last island
is found along the East Coast, and it includes the Doe
and Kwere languages.

   The referential form RF TEMA forms two separate
isogloss islands: one is found in the middle of the Ma-
sai territory and covers the Sonjo language, while the
other island is found along the Kenya border and includes
the Chagga dialects. The next island, found along the
Kenya border, is bounded by the isogloss for RF TAWANA
and encompasses the Chagga dialects and the Meru language.

The next set of three areas is delineated by the isogloss for RF SEGIGA; all three are multi-language areas. The first isogloss area is located along the Kenya border; it includes the Gweno and Pare languages. The second isogloss area stretches across the central portion of Tanzania from the East Coast almost to the western border of the country; it includes the languages Bondei, Zigua, Ngulu, Sagara, and Hehe. The last of the isogloss islands for this set is located in west-central Tanzania and covers the Ñyiha and Safwa languages.

The isogloss for RF DAWALA defines two single language islands, both of which are found in east-central Tanzania. The first covers the Luguru language, and the other, the Gogo language.

The last set of three isogloss areas for this word are delineated by the isogloss for the loanword LW CHEZA. Two of these areas are located along the Kenya border; the first island covers the Segeju language, while the second area covers the Pare language but also overlaps with the isogloss area for RF SEGIGA. The last of these areas is found along the East Coast; it covers the Zaramo language alone.

18) PIGA, "to hit": This lexical item is translated by eleven different forms. Six of the forms are Proto-Bantu forms; these are PB *kúb, PB *kóm, PB *yúm,

PB *tòb, PB *búd, and PB *ménу. The other five entail four referential forms--RF TEDA, RF TEMA, RF KAPA, and RF WA--along with a single loanword, LW PIGA.

A set of seven islands is delineated by the isogloss for PB *kúb. Three of these islands are multi-language areas: (1) the first one stretches along the Burundi and Rwanda borders and includes the Shubi, Hangaza, and Kiha languages; (2) the second area is found in central Tanzania and covers the Isanzu, Nyiramba, and Rimi languages; (3) the third and last of these multi-language areas is located along the Kenya border and includes several of the northern Chagga dialects.

The four single language areas bounded by the isogloss for PB *kúb are spread across the country. One is located on the southeastern shore of Lake Victoria and covers the Suba speakers. The next two islands are found in west-central Tanzania; one covers the Kimbu language, and the other covers the Safwa language. The last island is found along the East Coast and covers the Matumbi language.

As regards the areas defined by the isogloss for PB *kóm, one of these areas is a multi-language isogloss island found along the Malawi border which includes the Ndali, Nyiha, Malila, Nyakyusa, and Rambia languages. The next island, in south-central Tanzania, covers the

Pogoro speakers. The last of the islands bounded by the isogloss for PB *kóm stretches along the southern portion of the East Coast and covers only the Mwera language.

The two areas outlined by the isogloss for PB *yùm are multi-language islands. One island is found along the southeastern shore of Lake Victoria and stretches over the territory of the Jita, Ruri, and Kwaya language speakers. The other island is located along the southeastern shore of Lake Tanganyika and includes the Kɔnɔngɔ, Pimbwe, Rungwa, Fipa, and Rungu languages.

The island delineated by the isogloss for PB *tòb stretches across Tanzania from the East Coast to the southeastern shore of Lake Nyasa; it includes the following languages: Shambala, Bondei, Zigua, Kwere, Doe, Ngulu, Luguru, Kami, Kutu, Sagara, Gogo, Kaguru, Kisangu, Hehe, Bena, Pangwa, Kinga, Wanji, Kimanda, Kingoni, Mpoto, and Mbunga.

The single language area outlined by the isogloss for PB *búd is found along the Kenya border; it covers the Taita language alone.

The last of the areas bounded by an isogloss for a Proto-Bantu form, i.e. by PB *mény, is found along the Mozambique border and covers the Nyanja language.

The first of the islands defined by the isogloss for a referential form is the area for RF TEDA, which is

located along the southwestern shore of Lake Victoria and which covers the languages Nyambo, Haya, Zinza, and Kerewe.

The area outlined by the isogloss for RF TEMA is located on the southeastern shore of Lake Victoria; it covers the Sweta and Ngurimi languages.

The area defined by the isogloss for RF KAPA is found along the Kenya border; it includes four-fifths of the Chagga dialects, along with the Meru language.

The last set of areas are bounded by the isogloss for a referential form, in this case, RF WA: the first area is located between the Masai and Sandawe territories and covers the Kirangi language. The second area is found along the Mozambique border and covers the Makua language.

The island outlined by the isogloss for the loanword LW PIGA is located along the East Coast; it covers both the Segeju and Digo languages.

19) FIMBO, "whip": This word is represented by eight different forms, two of which were traced back to Proto-Bantu forms; the other six are referential forms. The Proto-Bantu forms are PB *pimbò and PB *tongà; the following are the referential forms: RF BIKI, RF NKONI, RF DANGA, RF NGVDV, RF NDISA, and RF NTUWA.

The set of six areas defined by the isogloss for

PB *pimbò is found all along the eastern half of Tanzania.
Five of the isogloss areas are multi-language islands.
The first of these is located along the eastern shore of
Lake Victoria in northern Tanzania and includes the fol-
lowing languages: Jita, Ruri, Kwaya, Ngurimi, Sweta, Ku-
ria, Kabwa, Zanaki, Simbiti, Ikizu, and Kiroba. The sec-
ond area of this set is located along the Kenya border
and covers the Chagga dialects and the Meru language.
The third multi-language island is found along the East
Coast and includes the Digo and Segeju languages. The
fourth multi-language area stretches from the East Coast
to the middle of south-central Tanzania and encompasses
the Ngulu, Kwere, Doe, Luguru, Kami, Kutu, Ndengereko,
Ndamba, and Mbunga languages. The latter is also part of
the isogloss area for RF BIKI. The last of the multi-
language islands bounded by the isogloss for PB *pimbò
is located along the southern half of the East Coast and
covers the Matumbi, Mwera, Yao, and Makonde languages.
The only single language island is found along the Mozam-
bique border; it covers the Yao language and also over-
laps with the isogloss area for RF BIKI.

The isogloss for PB *tóngà outlines a single
multi-language area which is found along the eastern
shore of Lake Nyasa and which covers the Kimanda, Mpoto,
and Ngoni languages.

The island located along the Burundi, Rwanda, and Uganda borders is defined by the isogloss for RF NKONI; it includes the languages Shubi, Hangaza, Kiha, Nyambo, Haya, Zinza, and Kerewe.

The next large multi-language area is delineated by the isogloss for RF DANGA; it is located in northwest Tanzania and covers the Sizaki, Sukuma, Nyanyembe, Sumbwa, Isanzu, Rimi, and Kɔnɔngɔ languages.

A set of two islands is outlined by the isogloss for RF BIKI. One is a multi-language island stretching throughout central Tanzania; it covers the following languages: Sagara, Pogoro, Bena, Kisangu, Pangwa, Kinga, and Mbunga--the latter overlaps with the isogloss area for PB *pimbɔ. The second area is a single language is-. land, and it also overlaps with an isogloss area of the Proto-Bantu form PB *pimbɔ; this area covers only the Yao language.

The isogloss for RF NGVDV establishes seven separate areas, which are distributed throughout Tanzania. The first area is located along the southeastern shore of Lake Victoria and covers only the Suba language. The next two islands are found along the Kenya border and include various Chagga dialects. Another island is also found in this area, and it covers the Mbugwe language alone. The next multi-language island defined by the RF

NGVDV isogloss is located along the northern sector of
the East Coast and includes the Shambala, Bondei, and
Zigua languages. Another, which is found in central Tan-
zania, covers the Hehe language. Still another multi-
language area is located along the northern shore of Lake
Nyasa; it covers the Ndali and Nyakyusa languages. The
last of the areas created by the isogloss for RF NGVDV
is a single language area found in west-central Tanzania
which covers the Bende language.

The next area is delineated by the isogloss for
RF NDISA; it is found in southwest-central Tanzania near
the Malawi border and includes the Nyiha, Malila, and
Safwa languages. The last of the isogloss areas defined
by the words for fimbo is bounded by the isogloss for RF
NTUWA. This area is found along the southeastern shore
of Lake Tanganyika and covers the Rungwa, Fipa, and Rungu
languages (see Figure X).

Now let us turn our attention to some of the sta-
tistical information that was derived from our analysis.
Before looking at the actual percentages, it must be noted
that our findings confirm the analysis and classification
of Malcolm Guthrie, as well as that described in an un-
published classification of a number of the Bantu lan-
guages in Tanzania by Derek Nurse,[1] to which we will refer
after the listing of our findings from the present study.

We will first list our statistical findings, after which we will give evidence of the correspondences of this analysis with the other classifications.

The major results of this study were:

(1) We determined that there is a very close association between the Shubi, Hangaza, and Kiha languages. Together, they formed a single isogloss island fifty-nine times, i.e. better than 56% of the time.

(2) The Sukuma language usually accompanies the languages of the Greater Unyamwezi; it showed an independence from this group only twenty-four times (22.9%).

(3) The Ngulu, Kaguru, Luguru, Kami, Kutu, and Sagara languages form a single group twenty-nine times (27.6%). However, the Sagara language is not part of the above group 22.9% of the time (i.e. twenty-four times). Furthermore, 19.1% of the time the Ngulu language shows a form different from this group and is associated instead with the Zigua language.

(4) The Segeju language shows a trend toward being highly differentiated from the rest of the surrounding dialects (i.e. in 31.4% of the cases examined); this confirms its classification by Bennett as a Thagicu language.[2] In addition to this, the Segeju language often corresponds with the form used by the Digo dialect (i.e. thirty-four times or 32.3%).

(5) The Bondei language shows an interesting association with the Digo dialect, exhibiting a correspondence of forms with Digo eighteen times or 17% of the time, and, sometimes, also with Segeju. The forms used in Bondei are also similarly connected with those used in the Shambala and Zigua languages (i.e. 15.2% or sixteen times).

(6) The isolation of the Chagga dialects is confirmed by the statistics here (i.e. they are isolated as many as fifty-four times, in 51.4% of the cases reviewed). Moreover, it should be noted that, as much as 39% of the time (i.e. in forty-one different cases under study), the Meru language is associated with the Chagga group. The Gweno language speakers used the same forms as those used in the Chagga dialect group in as high as 58% of the cases examined.

(7) The following languages--Jita, Ruri, Kwaya, Ngurimi, Sweta, Kuria, Suba, Kabwa, Zanaki, Sizaki, Simbiti, Ikiza, and Kiroba--which are found along the south-eastern shore of Lake Victoria, form a close group in thirty-eight cases (or about 36.1%); on the other hand, in 64.7% of the cases, this larger group is split into two sub-groups, usually divided between the western and the eastern dialects.

(8) The languages Pimbwe, Rungwa, Fipa, and Rungu

form a single group along the southeastern shore of Lake
Tanganyika thirty-four times (or 32.3%)

(9) The languages located along the eastern shore
of Lake Nyasa, i.e. Kimanda, Kingoni, Kimatengo, Sutu,
and Mpoto, form a single group 46.6% or forty-nine times.

(10) It is interesting to note that, out of the
one hundred and five words that we studied, Swahili loan-
words were found to be in use for thirty-four of the lex-
ical items. It should further be noted that, in some
cases, there was more than one loanword for a specific
root. For example:

(a) _sana_ exhibited four different loanwords:
MUNO, SANA, KABISA, and KWELI;

(b) _bia_ showed two different loanwords: BIA
and MPOMBE;

(c) _tisa_ exhibited a single loanword, TISA,
along with a metathesis item, SITA.

Now we shall examine the independent information
confirming these results. The following information is
provided by Derek Nurse, who is associated with the Uni-
versity of Dar es Salaam; it is based on his lexico-
statistical analysis of one hundred words in each of the
languages that he compared:

(1)

	SHUBI	KIHA
SHUBI	-----	91
KIHA	91	-----

(2)

	SUKUMA	SUMBWA	NYAMWEZI	KIMBU
SUKUMA	-----	78	68	68
SUMBWA	78	-----	64	70
NYAMWEZI	91	83	75	69
KIMBU	68	70	69	-----

(3-5)

	NGU.	SHA.	KAG.	LUG.	KAM.	KUT.	ZIG.	BON.	DIG.
NGULU	---	76	71	60	68	65	95	84	59
SHAMBALA	76	---	60	48	57	56	75	84	52
KAGURU	71	60	---	65	74	68	70	63	51
LUGURU	60	48	65	---	81	78	63	53	51
KAMI	68	57	74	81	---	79	70	60	52
KUTU	65	56	68	78	79	---	68	61	53
ZIGUA	95	75	70	63	70	68	---	81	63
BONDEI	84	84	63	53	60	61	81	---	57
DIGO	59	52	51	51	52	53	63	57	---

(6)   Mr. Nurse states that there are four dialects among the Chagga group; they are (a) West Kilimanjaro (WK), (b) Central Kilimanjaro (CK), (c) Rombo (R), and (d) Gweno (G). He goes on further to list the sub-dialects for each of the four main dialects: (a) WK--

Meru, Siha, Ng'uni, Masama, Machame, and Kibosho; (b) CK--Kahe, Uru, Old Moshi, and Vunjo; (c) R--Southern Rombo, Mashati, and Usseri; and (d) G--Gweno. For our purposes here, in order to confirm our findings as mentioned previously, we will use one language for each dialect in this chart:

	MERU	MASAMA	OLD MOSHI	USSERI	GWENO
MERU	----	90	73	74	70
MASAMA	90	------	77	75	70
OLD MOSHI	73	77	---------	78	75
USSERI	74	75	78	------	74
GWENO	70	70	75	74	-----

(7)

	KURIA	NGURIMI	KWAYA	JITA	KEREWE
KURIA	-----	86	62	55	55
NGURIMI	86	-------	61	54	51
KWAYA	62	61	-----	87	65
JITA	55	54	87	----	68
KEREWE	55	51	65	68	------

(8) and (9)

	FIPA	RUNGU	MANDA	MATENGO
FIPA	----	87	42	38
RUNGU	87	-----	-----	-------
MANDA	42	-----	-----	66
MATENGO	38	-----	66	-------

(10)   What follows here is just a sample of the corre-
spondences with Swahili in various languages:

	SUMBWA	NYAMWEZI	SUKUMA	KIMBU
SWAHILI	49	53	52	51

	ILYAMBA	ISANZU	NYATURU	RANGI
SWAHILI	51	53	56	56

As we mentioned above, the results of our data
primarily confirm Malcolm Guthrie's classification of the
Tanzanian languages:

(1) The Shubi, Hangaza, and Kiha language group
were included in Guthrie's Zone D and in the subnumbers
60's.

(2) Guthrie grouped the Sukuma language under
Zone F along with the languages of the Greater Unyamwezi.

(3) All of the languages mentioned in point three
of our set of statistics are grouped under Zone G by
Guthrie.

(4) Guthrie also indicates that Segeju and Digo
are partially related by classifying these two languages
together under Zone E; however, he also recognizes the
differences between the two, and, therefore, he places
them under different subnumbers: Segeju, in the 50's,
and Digo, in the 70's.

(5) Guthrie's material indicates a relationship

between the Bondei, Shambala, and Zigua languages by plac-
ing each of these under Zone G, in the subnumbers 20's
and 30's; it should be noted, however, that he does not
account for the partial relationship between Bondei and
the Zone E languages Segeju and Digo.

(6) The relationship among the Chagga dialects is
clearly demonstrated by Guthrie, since all of the Chagga
dialects, along with the Meru and Gweno languages, are
grouped under his Zone E and subnumbers 60's.

(7) The languages described here (see point seven
in our set of statistics) are all grouped under the Zone
E, but the partial split is also demonstrated by Guthrie,
since he places some of these languages under the sub-
numbers 20's and others under the 40's.

(8) This set of languages (i.e. Pimbwe, Rungwa,
Fipa, and Rungu) are also joined by Guthrie as a subgroup
of a larger group; he classified these under his Zone M,
subnumbers 10's.

(9) The last group that we checked (see point nine
in our statistics) has also been classified by Malcolm
Guthrie into a major subgroup--Zone N and subnumbers 10's.

For further details about Guthrie's subgroups,
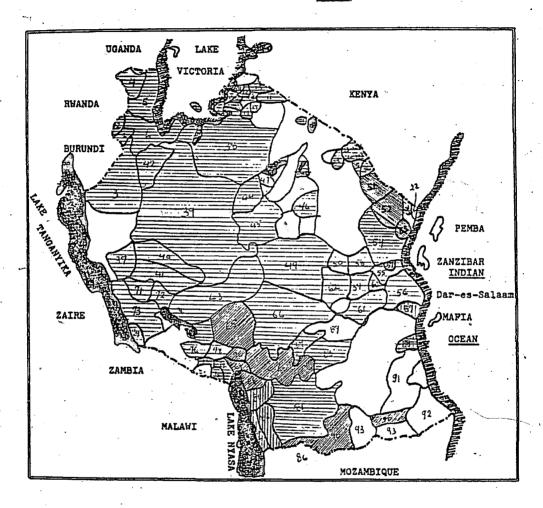refer to Appendix I.

In conclusion, we would like to point out that
the methodology employed in this study (despite the fact

that its usefulness was questioned by Guthrie) has proven
to be a reliable research tool for the classification of
languages. Our findings were shown to be accurate and
were corroborated by two independent sources using dif-
ferent materials and approaches.

FOOTNOTES

1. Nurse's paper is a 1975 untitled manuscript, as yet unpublished.

2. See Patrick R. Bennett, "Dahl's Law and Thagicũ," in African Language Studies VIII, 1967, pp. 127-59.

ISOGLOSS MAP FOR <u>ZIZI</u>
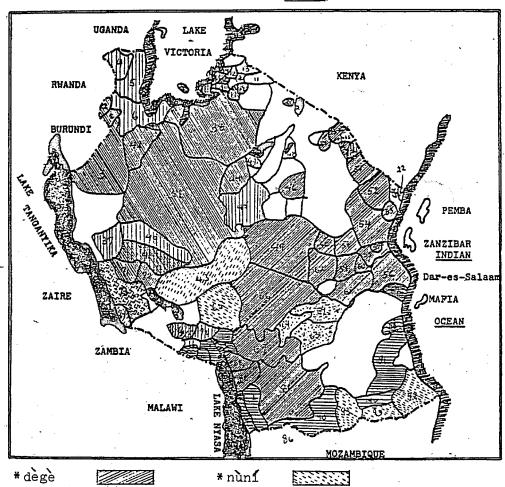
FIGURE VI

ISOGLOSS MAP FOR <u>NDEGE</u>

* dègè	▨	* nùní	▨
* jùnì	▤	BONGU	▨
* yùnì	▤		
* nòní	▨		
* nyòní	▥		
* nyùnì	▨		
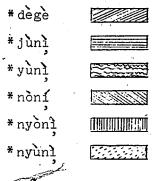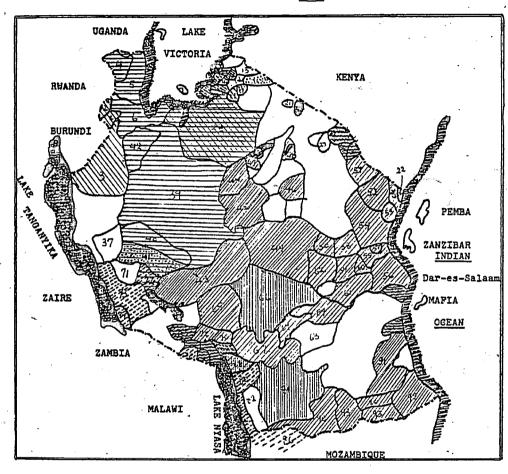
FIGURE VII

ISOGLOSS MAP FOR <u>PUA</u>
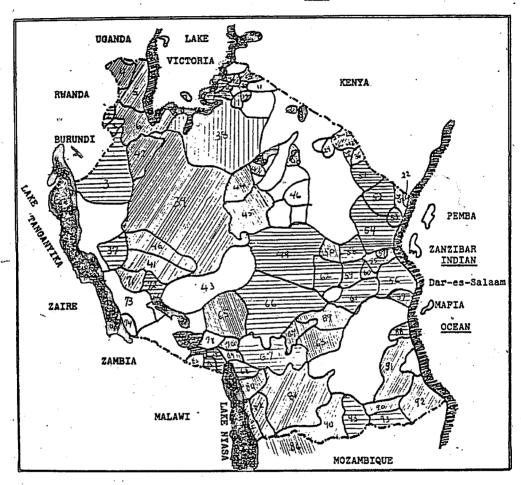
*pùdà		* yídò	
*pùdò		<u>C</u>INDO	
*pùnò		ENYONGO	
*júdù		MENGELO	

FIGURE VIII

ISOGLOSS MAP FOR <u>JUA</u>

* júbà   (hatched legend pattern)
* cúba   (horizontal lines legend pattern)
* yúbà   (diagonal hatched legend pattern)
LIMI   (vertical lines legend pattern)
IZUMBA   (wavy lines legend pattern)
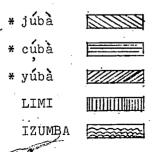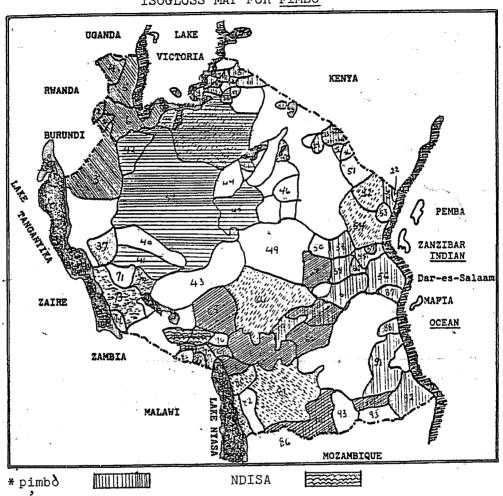
FIGURE IX

ISOGLOSS MAP FOR <u>FIMBO</u>

FIGURE X

The languages and dialects examined during the course of this research are:

OUR NUMBER	LANGUAGE NAME	GUTHRIE'S ZONE AND NUMBER
1	Shubi	D-64
2	Hangaza	D-65
3	Kiha	D-66
4	Nyambo	E-21
5	Haya	E-22
6	Zinza	E-23
7	Kerewe	E-24
8	Jita	E-25
9	Ruri	E-25
10	Kwaya	E-25
11	Ngurimi	E-42
12	Sweta	E-42
13	Kuria	E-43
14	Suba	E-43
15	Kabwa	E-44
16	Zanaki	E-44
17	Sizaki	E-44
18	Simbiti	E-44
19	Ikizu	E-44

OUR NUMBER	LANGUAGE NAME	GUTHRIE'S ZONE AND NUMBER
20	Kiroba	E-44
21	Sonjo	E-46
22	Segeju	E-56
23	Siha	E-60
24	Kibosho	E-60
25	Uru	E-60
26	Masama	E-60
27	Mwika	E-60
28	Usseri	E-60
29	Meru	E-61
30	Machame	E-62a
31	Old Moshi	E-62a
32	Vunjo	E-62b
33	Rombo	E-62c
34	Gweno	E-65
35	Digo	E-73
36	Taita	E-74
37	Bende	F-12
38	Sukuma	F-21
39	Nyanyembe	F-22
40	Lwira	F-22
41	Konongo	F-23
42	Sumbwa	F-23

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OUR NUMBER	LANGUAGE NAME	GUTHRIE'S ZONE AND NUMBER
43	Kimbu	F-24
44	Nyiramba	F-31
45	Rimi	F-32
46	Kirangi	F-33
47	Isanzu	F-33
48	Mbugwe	F-34
49	Gogo	G-11
50	Kaguru	G-12
51	Pare	G-22
52	Shambala	G-23
53	Bondei	G-24
54	Zigua	G-31
55	Kwere	G-32
56	Zaramo	G-33
57	Doe	G-33
58	Ngulu	G-34
59	Luguru	G-35
60	Kami	G-36
61	Kutu	G-37
62	Sagara	G-39
63	Pogoro	G-51
64	Ndamba	G-52
65	Kisangu	G-61

OUR NUMBER	LANGUAGE NAME	GUTHRIE'S ZONE AND NUMBER
66	Hehe	G-62
67	Bena	G-63
68	Pangwa	G-64
69	Kinga	G-65
70	Wanji	G-66
71	Pimbwe	M-11
72	Rungwa	M-12
73	Fipa	M-13
74	Rungu	M-14
75	Ndali	M-21
76	Nyiha	M-23
77	Malila	M-24
78	Safwa	M-25
79	Nyakyusa	M-31
80	Kimanda	N-11
81	Kingoni	N-12
82	Kimatengo	N-13
83	Sutu	N-13
84	Mpoto	N-14
85	Rambia	N-21
86	Nyanja	N-31
87	Ndengereko	P-11
88	Matumbi	P-13

OUR NUMBER	LANGUAGE NAME	GUTHRIE'S ZONE AND NUMBER
89	Mbunga	P-15
90	Yao	P-21
91	Mwera	P-22
92	Makonde	P-23
93	Makua	P-31

APPENDIX II

We have provided below an alphabetical list of
those languages and dialects that were described by M.A.
Bryan in her book, The Bantu Languages of Africa (London,
1954), as belonging to the Tanganyika Territory, which is
now known as Tanzania. We have also supplied Bryan's
classification numbers for reference.

	LANGUAGE NAME	BRYAN'S NUMBER
1.	Bena	131
2.	Bende	118
3.	Bondei	122
4.	Bungu	119
5.	Chagga	122f
6.	Dhaisa	115f
7.	Digo	125
8.	Doe	123
9.	Fipa	76
10.	Girango	113f
11.	Gogo	121
12.	Gweno	117
13.	Ha	100
14.	Hangaza	100
15.	Haya	104f

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	LANGUAGE NAME	BRYAN'S NUMBER
16.	Hehe	131
17.	Holoholo	92
18.	Ikizu	113f
19.	Ikoma	113f
20.	Iramba	120
21.	Isanzu	-----
22.	Isenyi	113f
23.	Jita	104f
24.	Kabwa	-----
25.	Kaguru	121
26.	Kahe	117
27.	Kananga	137
28.	Kichi	133
29.	Kinga	79/131
30.	Kimbu	119f
31.	Kisi	131f
32.	Konde	79
33.	Kɔnɔngɔ	119f
34.	Kerewe	109f
35.	Kuria	113f
36.	Kutu	124
37.	Kwaya	105
38.	Kwere	123

	LANGUAGE NAME	BRYAN'S NUMBER
39.	Lambya	78/138
40.	Lomwe	135
41.	Lwira	————
42.	Makonde	134
43.	Makua	135
44.	Malila	77
45.	Mambwe	76
46.	Manda	136
47.	Matengo	136
48.	Matumbi	133
49.	Mawiha	134
50.	Mbugwe	120
51.	Mbunga	133
52.	Medo	135
53.	Meru	117f
54.	Mwamba	79
55.	Mwanga	77
56.	Mwera	134
57.	Nata	113
58.	Ndali	77
59.	Ndamba	130
60.	Ndengereko	133
61.	Ndonde	134

	LANGUAGE NAME	BRYAN'S NUMBER
62.	Ngindo	133
63.	Ngoni	136
64.	Ngoreme/Ngurimi	114
65.	Ngu(l)u/Nguru	123
66.	Nyakyusa	79
67.	Nyambo	107
68.	Nyamwezi	119
69.	Nyanja	139
70.	Nyasa/(Mpoto)	136
71.	Nyaturu/(Rimi)	120
72.	Nyiha	77
73.	Nyika	125
74.	Pangwa	131
75.	Pare	122
76.	Pimbwe	76
77.	Pogoro	130
78.	Rangi	120
79.	Roba	113f
80.	Rufiji	133
81.	Ruguru	124
82.	Rungu	76
83.	Rungwa	76
84.	Ruri	----

	LANGUAGE NAME	BRYAN'S NUMBER
85.	Rusha	117
86.	Safwa	77
87.	Sagara	124
88.	Sango	131
89.	Segeju	115
90.	Selya	79
91.	Simbiti	113f
92.	Siora	113f
93.	Sizaki	----
94.	Shambala	122
95.	Sonjo	115f
96.	Suba	----
97.	Subi/Shubi	100
98.	Sukuma	119f
99.	Sumbwa	119
100.	Sutu	136
101.	Sweta	114
102.	Taita	125
103.	Tongwe	118
104.	Tubita	122
105.	Vidunda	124
106.	Vinza	100
107.	Wanda	

	LANGUAGE NAME	BRYAN'S NUMBER
108.	Wanji	131
109.	Yao	134
110.	Zanaki	113f
111.	Zaramo	123f
112.	Zigua	123f
113.	Zinza	104f

APPENDIX III

The following is the list of words used in the classification. These words were taken directly from the Lehmann questionnaire. The original list was in Swahili; the English translation has been provided for ease in reference.

SWAHILI	ENGLISH
ishi	to live
usiku	night
sikia	to hear
imba	to sing
moto	hot/fire
wanaume	young man
nyumba	house
moshi	smoke
penda	to like, love
maji	water
tengeneza	to make
karanga	peanut/ground nut
tunda	fruit
pata	to get
ku-oza	to be bad
tumia	to use, employ

SWAHILI	ENGLISH
shoka	axe
kuni	wood
ki-/vi-pande	portion/part
moja	one
tisa	nine
pika	to cook
bia	beer
chakula	food
uji	porridge
nukia	to smell
laini	smooth
zito	thick
wavulana	boys
ku-piga	to hit/fight
fimbo	whip/stick
anguka	to fall
cheza	to play
lala	to sleep
chini	down
ardhi	earth
sana	much, very, good
simama	to stand
mstari	line

SWAHILI	ENGLISH
kulia	right
kushoto	left
hesabu	to count
ji-/ma-we	stone/stones
dogo	small
fahamu	to know
mzee	headman, elder
barabara	road
kwenda	to go
nyembamba	narrow
ku-taka	to want
ku-hitaji	to need
kamba	rope
refu	large
(mi)zigo	loads
magone	bark (of a tree)
m-/mi-ti	tree/trees
eusi	black
eupe	white
ndege	bird
ziwa	lake
ku-ruka	to fly
ku-vunja	to break

SWAHILI	ENGLISH
mkia	tail
uwawa	wing
tembo	elephant
ngozi	skin
kubwa	big/large
sikio	ear
nyama	animal
msitu	forest
mate	saliva/spit
chura	frog
kavu	land
baridi	cold
upepo	wind
mawingu	clouds
jua	sun
wakati	season, period
majani	grass, leaf
unguza	to burn
kiangasi	dry season (summer)
mvua	rain
bichi	green
maua	flower
ekundu	red

SWAHILI	ENGLISH
wanawake	women
panda	to plant
nyota	star
mlima	mountain
ulimwengu	sky, heaven
ku-konda	to be thin
ku-vimba	to be swollen
ku-tapika	to vomit
uso	face
pua	nose
ku-nyonya	to suck
ku-kuna	to scratch
ku-zaa	to give birth
nywele	hair
damu	blood
mamba	crocodile
osha	to wash
zizi	root
kweli	true/right

We have reproduced the Lehmann questionnaire on the following pages, and, in order to facilitate matters for reference, we have also provided the translation of the sentences in English.

The questionnaire was used by the team doing research in Tanzania in 1970 under the auspices of the university in Dar es Salaam and the Ford Foundation.

1. Watu hawa wote wanaishi kijijini mwetu.

   All these people are living in our village.

2. Usiku uliopita tulisikia watu waliokuwa wana-imba.

   Last night we heard some people who were singing.

3. Baba na mama walikuja na mtoto huyu.

   Yesterday the father and the mother came with this child.

4. Nani yuko nyumbani mwako? Hayuko mtu, niko peke yangu hapa.

   Who is inside your house? Nobody, I am alone in here.

5. Hakuna moshi na majivu ya moto yamepoa.

    There is no smoke, and the ashes of the fire

are cold.

6. Wanaume hupenda kunywa bia badala ya maji.

    Men like to drink beer, not water.

7. Uliona mayai mangapi? Moja tu.

    How many eggs did you find? Only one.

8. Mafuta haya yametengenezwa kutokana na karanga.

    This fat is made from groundnuts.

9. Je, unalikamaje tunda kupata maji yake?

    How can you squeeze the juice out of the fruit?

10. Tunda hili limeoza, usilile.

    This fruit is bad (rotten), do not eat it.

11. Alitumia shoka kuchanja kipande cha kuni ka-
tika vipande vitatu.

    . He split the wood with an iron into three

pieces.

12. Mkewe anapika chakula, nasikia kinanukia na
ninauona moshi.

    His wife is cooking food, I smell it and see

the smoke.

13. Napenda uji unapokuwa laini na mzito.

I like porridge when it is smooth and thick.

14. Chukua chakula hiki na ukipeleke kwa baba
yako.   Yuko wapi?

Take this food, carry it to your father.
Where is he?

15. Anapenda gauni la kimanjano kama mimi.   Je
wewe?

She likes the yellow dress, and so do I.
And you?

16. Wavulana walikuwa wakipigana, na walimpiga na
fimbo kichwani.

The boys were fighting, and they hit him on
the head with a stick.

17. Alianguka walipokuwa wanacheza na wengine
wakacheka.

When they played, he fell down and the others
laughed.

18. Huwezi kulala hapa chini kwani ardhi imelo-
wana sana.

You cannot lie down here, the earth is too
wet.

19. Usisimame huko, njoo hapa.

    Come here, do not stand over there.

20. Waambie watoto wasimame katika mstari ulio-
nyooka, kisha wageuke kulia na kushoto.

    Let the children stand in a straight line and
turn right and left.

21. Watoto watutu walioketi chini walihesabu mawe
madogo.

    Three children who sat on the ground counted
small stones.

22. Je unamfahamu mzee wa kijiji hiki?

    Do you know the headman of this village?

23. Barabara hii imenyooka lakini ni nyembamba
sana.   Inakwenda wapi?

    This road is straight but very narrow.   Where
does it go?

24. Ni lazima mnipanue ikiwa mnataka basi lije
hapa.

You must make it wider if you want the bus to

come here.

25. Tunahitaji kamba ndefu kufungia mizigo.

   We need a new long rope to tie the loads.

26. Magome ya mti huu yafaa kutengeneza kamba.

   The bark of this tree is good for making rope.

27. Angalia wale ndege, watano ni weusi na wawili
ni weupe.

   Look at the birds, five are black but two are
white.

28. Ndege wachache wanaelea ziwani na wengine
wameruka na kwenda zao.

   A few birds are floating on the lake, the
others have flown away.

29. Ndege huyu amevunja uwawa wake hawezi kuruka.

   This bird has broken his wing, it cannot fly.

30. Ndege yule ana nyoya refu mkiani.

   That bird has a long feather in his tail.

31. Tembo ana masikio makubwa na ngozi yake
haing'ai sana.

   The elephant has very big ears and his skin

is dull.

32. Je uliona wanyama wengi msituni asubuhi hii?
Hapana, hata mmoja.

   Did you see many animals in the forest this
morning? No, not one.

33. Nyoka wengine hutemea mate machoni mwa macho
ya watu na wanyama.

   Some snakes spit poison into the eyes of
people and of animals.

34. Chura huishi majini na mchi kavu.
   Frogs live in water and on land.

35. Kuna baridi kwa sababu ya upepo unavuma.
   It is cold because the wind blows.

36. Mawingu yamefunika jua.
   Clouds hide (cover) the sun.

37. Tunaunguza majani wakati wa kiangazi.
   We burn the grass in the dry season.

38. Wakati wa mvua umekaribia. Miti ina majani
mabichi na maua mekundu.

   The rainy season is near. The trees have

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green leaves and red flowers.

39. Wanawake wanalima. Wanataka kupanda (mbegu).

    The women are digging. They want to plant

seeds.

40. Jiwe hili si zito, lile kubwa ni zito zaidi.

    This stone is not heavy, that bigger one is

heavier.

41. Hatukuuona mwezi usiku uliopita bali nyota

kubwa (sayari).

    We did not see the moon but a big star last

night.

42. Mlima ule mrefu unaitwaje?

    What is the name of that high mountain?

43. Mungu alitengeneza ardhi na ulimwengu.

    God made the earth and the sky.

44. Tulitembea mvuani na tukalowa sana.

    We walked in the rain and became very wet.

45. Mtoto huyu mchanga anaumwa, amekonda sana,

ulimi wake umavimba na anatapika.

    This baby is sick, he is very thin, his

tongue is swollen and he vomits.

46. Uso wake una jasho, ufute na kitambaa kikavu.

His face is wet, wipe it with a dry cloth.

47. Je umri wake ni mwaka mmoja au miwili? Ha-
pana umri wake ni miezi tisa.

Is he one year or two years old? No, he is
nine months old.

48. Mtoto ana mafua, hawezi kupumua sawasawa, pua
zake zimeziba.

The child has a cold, it cannot breathe
through his nose.

49. Mtoto mchanga ananyonya, hana meno (mdomoni).

The small child sucks, he has no teeth in
his mouth.

50. Alikuna kichwa chake, chawa alimuma.

He scratched his head, a louse had bitten
him.

51. Siwezi kuona kwa sababu nina vumbi machoni.

I cannot see because I have dust in my eyes.

52. Nyoka alimuma tumboni akafa.

A snake bit him in the belly and he died.

53. Anajiona mgonjwa anaumwa shingo na mgongo.

  She feels sick, her neck and her back hurt.

54. Alisema amezaa watoto watano lakini wanoishi
ni wanne tu.

  She said she gave birth to five children but
only four are alive.

55. Yule mama mgonjwa amekuwa akilala mchana na
usiku.

  The sick woman has been sleeping day and night.

56. Alipoteza nywele zake zote za kichwani na ma-
laika ya mwili mzima.

  She lost all the hair of her head and of her
body.

57. Alijikata mkononi na damu ilianza kutoka.

  She cut her hand and the blood began to flow.

58. Nenda ukaoshe mikono yako iliye michafu.

  Go and wash your hands which are dirty.

59. Ioshe na maji moto.

  Wash them in warm water.

60. Wanasema: Mizizi ya miti ile ni dawa nzuri.
Je ni kweli?

They say: the roots of that tree are good medi-
cine, is that right?

61. Mumewe ni mwindaji, anamletea nyama za ku-
tosha.

Her husband is a hunter, he brings her much

meat.

62. Nadhani alimchoma chui kwa mkuki.

I think he stabbed the leopard with a spear.

63. Kama wanaume wakiua swala watakula ini na
moyo.

If the men kill a buck they will eat the

liver and the heart.

64. Matumbo ya mnyama huliwa na mbwa.

The guts of the animal are eaten by the dogs.

65. Je hawa ni mbwa wako au wake? Ndiyo ni wangu.

Are these your dogs or his? Yes, they are

mine.

66. Alimtupia mbwa mfupa mkubwa.

He threw a big bone to the dog.

67. Walisugua ngozi ya mnyama na chumvi.

They rubbed the skin of the animal with salt.

68. Wavuvi walimpa samaki mkubwa asubuhi hii walipoiona.

The fishermen gave me a big fish this morning when they saw me.

69. Walitoa nyavu mitumbwini na wakausukuma mtumbwi mmoja mchangani.

They pulled the nets out of the boats and pushed one boat onto the sand.

70. Je mto uko mbali? Hapana uko karibu sana.

Is the river far away? No, it is quite near.

71. Je unaweza kuogelea kama samaki? Hapana siwezi (sijui) kuogelea.

Can you swim like a fish? No, I cannot swim.

72. Mvuvi alitia mnyoo katika ndoana.

The fisherman put a worm on the fishhook.

73. Tunaogopa mamba lakini yeye hapana.

We fear crocodile but not he.

74. Kisu chake ni kifupi na kikali.

His knife is short and (very) sharp.

75. Alianguka motoni na akajiunguza miguu yake miwili.

He fell into the fire and burnt both feet and
one leg.

APPENDIX V

What follows below is a list of the abbreviations used for periodical references:

1. <u>AHKI</u>: Abhandlungen des Hanburgischen Kolonial-instituts, Hamburg, 1910-20.

2. <u>ANTHROPOS</u>: Internationale Zeitschrift für Völker-und Sprachenkunde, Mödling-Wien, and later, Posieux (Freiburg), 1906--.

3. <u>A. Stud. D.K.S.</u>: Archiv für das Studium Deutscher Kolonialsprachen, Berlin, 1902--.

4. <u>B.A.</u>: Baessler-Archiv, Berlin/Leipzig, 1911--.

5. <u>BSO(A)S</u>: Bulletin of the School of Oriental and African Studies, London, 1917--.

6. <u>B. St.</u>: Bantu Studies, Johannesburg, 1923-41 (formerly Bantu Studies and general South African anthropology 1921-2).

7. <u>J.A.S.</u>: Journal of the African (later Royal African) Society, London, 1901-43 (African Affairs as from 1944--).

8. <u>MDS</u>: Mitteilungen aus den Deutschen Schutzge-bieten, Berlin, 1907-29.

9. <u>MSOS</u>: Mitteilungen des Seminars für Orien-talische Sprachen, Berlin, 1898--.

10. <u>SPCK:</u> Society for the Promotion of Christian Knowledge.

11. <u>ZAOS:</u> Zeitschrift für Afrikanische und Ozeanische Sprachen, Berlin, 1895-1901.

12. <u>ZAS:</u> Zeitschrift für Afrikanische Sprachen, Berlin, 1887-90.

13. <u>ZES:</u> Zeitschrift für Eingeborenen Sprachen, Hamburg/Berlin, 1910--.

14. <u>ZFE:</u> Zeitschrift für Ethnologie, Berlin, 1868(9?).

15. <u>ZFK:</u> Zeitschrift für Kolonialsprachen, Hamburg/Berlin, 1910-20 (currently, Afrika und Übersee).

16. <u>ZFKS:</u> See ZFK.

17. <u>ZKS:</u> See ZFK.

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