THE IMPACT OF EDUCATION ON TICUNA INDIAN CULTURE:
AN HISTORICAL AND ETHNOGRAPHIC
FIELD STUDY

DISSERTATION

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By

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The purposes of this study were to provide fundamental ethnographic information about the Ticuna Indians and to determine to what extent the programs of bilingual education, administered among them by the Ministerio de Educación Pública del Perú and the Summer Institute of Linguistics (SIL), had accelerated their integration into mainstream Peruvian life.

Data for the historical background of bilingual Indian education in Peru among the Ticuna Indians were accomplished by searching the records of the Peruvian Ministry of Education and of the Summer Institute of Linguistics at Yarinacocha Base. Other historical and ethnographic data were obtained through the use of books and records found in the Base Linguistic Library and the Office of Tribal Affairs, both administered by SIL at Yarinacocha Base.

Ethnographic field data were gathered during June and July, 1970, among the Ticuna Indians living in Peru, Brazil, and Colombia.

Chapter I is an introduction to the study, and Chapter II, a review of related literature. The historical materials are primarily restricted to Chapter III, which includes a brief survey of the history of Indian education in Peru. More
specifically, Chapter III contains a review of the work of the Summer Institute of Linguistics, affiliated with the University of Oklahoma, in Peru since 1945. Chapter IV contains a detailed description of the material culture of the Ticuna Indians living in contact with the mestizos in the Upper Amazon Drainage Basin in 1970. The final chapter of this study contains two major sections: first, a narrative concerned with the social changes that have occurred among the Ticuna Indians of Cushillococha since 1953; second, a summary of significant findings, conclusions, and recommendations for further research.

There had been little progress in educating jungle Indians in South America until 1945, when SIL first signed a contract with the Peruvian government to analyze the languages and set up bilingual education programs for selected tribal groups. Since 1945, SIL and its affiliate, the Jungle Aviation and Radio Service (JAARS), in collaboration with various agencies of the Peruvian government, have instituted and are operating many vital health, educational, and community development programs.

It was not until 1953 that SIL workers were able to enter a Ticuna community and begin the task of analyzing their tonal language. By 1959, the linguists in Cushillococha had completed a basic phonology of the language and the first bilingual primers had been published.
The conclusions drawn in this research were necessarily subjective since the field data did not lend itself to statistical analysis; however, there could be little doubt that certain significant changes had occurred among selected Indian groups in Peru since 1945.

The following conclusions were drawn after an examination of the data collected as a part of the present research:

1. Bilingual education is an effective tool in integrating monolingual, pre-literate, minority groups into Peruvian society.

2. There is little multi-dimensional material available dealing with the effects of bilingual education on certain Indian groups in South America.

3. The Peruvian government, with the collaboration of SIL, has been successful in leading many jungle Indian groups toward full participation in national life.

4. Bilingual educational programs are the only new extrinsic influences of major consequence in recent history at Cushillocococha, and the rate of acculturation of the Ticuna there has been accelerated.

5. The program of bilingual education operating in the Peruvian jungle in 1970 has obvious application in other locations where social problems with other-language minority groups are prevalent.
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CHAPTER I

INTRODUCTION

The physiographic zone considered by this research encompasses an area of approximately 650,000 square miles, including parts of Brazil, Venezuela, Colombia, Bolivia, Ecuador, and Peru. This area, the Upper Amazon Drainage Basin, is generally homogeneous geographically, and the people living there share certain ethnic features and ecological structures. Because of the expanse and remoteness of the area and difficulties of communication and travel within the area, some tribes living in the Amazon Basin have remained relatively unknown and, therefore, unintegrated. Various tribes living there are generally considered to be highly ethnocentric. In certain instances this ethnocentrism is manifested by these people attempting to destroy any stranger they encounter. In recent years, however, there have been external social and political forces at work in the jungle, and the Indians' exposure to outside influences is steadily increasing. Of the six countries considered, Peru has apparently been more effective in inducting selected tribal people into its twentieth-century society than have the other five. While much has been written concerning certain characteristics of tribes at the time they were discovered, there is a dearth of subsequent
multi-dimensional information about them. Furthermore, little has been written about their social growth and involvement in the dominant culture.

Since Peru's achieving of independence in 1824, the more socially aware Peruvians have recognized the importance of free public education for every citizen in their republic. The Constitution of 1823 made provision for public education, but it was not until 1905 that the national government actually assumed responsibility for educating its people (18, p. 3). In 1941, the Peruvian Congress passed a new law (Ley orgánico de la educación pública) which brought vital changes to both elementary and compulsory basic education. It is significant to note that this law made basic education compulsory for all citizens to age forty, thereby allowing for the incorporation of tribal populations into the mainstream of national life (18, p. 6). Early in 1950, a five-point plan (Plan de educación del Perú) was initiated and aimed toward developing a modern educational ethos for Peru. Under this plan major emphasis was placed upon the expansion of educational opportunities in rural and Indian communities, where problems had long existed, apparently without any reasonable solution (18, p. 5). A solution was doubly difficult since many of the Indians could not understand or speak Spanish.

It is virtually inconceivable that an individual or a group could be integrated into a foreign society unless he first assumed the values and behavior patterns of that system.
This process would be even more improbable if the initiate had little or no competency in the language of the dominant culture. Traditionally, religious organizations have been the most active in attempting to acculturate primitive peoples. National governments have also been interested but not with the zeal exhibited by certain missionary organizations. The man credited with giving written language to more pre-literate tribes than any other person or group is William Cameron Townsend (19). Townsend founded Wycliffe Bible Translators, an organization dedicated to bringing literacy and the Bible to tribal people the world over (10, p. 3). In recent years the Summer Institute of Linguistics, at the University of Oklahoma, in association with Wycliffe Bible Translators, has developed and employed the science of descriptive linguistics with expertise in breaking down complex language barriers that have hindered modern education in certain tribal groups. These missionary-linguists are currently working with almost 350 different tribal societies in approximately forty countries (12, p. 8).

Since 1946, when the Peruvian government, in cooperation with the Summer Institute of Linguistics, established the Bilingual Teacher-Training School at Yarinacocha, over 300 graduates of this school have returned to their tribes as certified and commissioned teachers. The government provides these teachers with tribal language primers and other books to be used in their classrooms. Hopefully, these teachers
not only take modern pedagogy to their remote villages but also return with important cultural dimensions practiced by the dominant culture (19).

One of the first tribes to benefit from the program of the Summer Institute of Linguistics in Peru was the Ticuna. It is with the results of modern bilingual education among the Ticunas of Cushillococha that this research is primarily concerned.

Statement of the Problem

The problem with which this study was primarily concerned was that of developing a description and analysis of the changed cultural ethos of the Ticuna Indians living in the Peruvian Amazon in 1970. This problem necessitated the determination of how extrinsic cultural influences have altered the ways that the Ticunas living at Cushillococha have related to and solved many of the problems of their environment.

Statement of Purposes

One purpose of this study was to describe the historical events related to the modern bilingual education of jungle Indians in Peru. The second purpose was to describe the material culture of a particular tribe whose language had been reduced to writing by the linguists of the Summer Institute of Linguistics, in Peru, and subsequent to this have had the benefit of bilingual education. A third purpose of this study was to describe the social changes that have occurred, in the same
Background and Significance

Previous anthropological and sociological studies carried out in the Amazon have been, for the most part, either descriptive or taxonomic in nature. The point of departure taken by this research was the analysis of selected aspects of Ticuna culture in relation to the dominant culture, with particular attention given to cultural changes that have occurred within the smaller system.

The study gained added strength and validity since it was possible to compare Indians from the same tribal group, yet at different levels of social sophistication: that is, the description of selected groups of Ticuna Indians who have had the benefit of bilingual education and other groups who have not had such programs. However, both categories of Indians had been in close cultural contact with the mestizo for hundreds of years. This opportunity to study a cultural group before and after major recent extrinsic influences clearly defined a set of field conditions not often duplicated.

Since several important organizations involved in bilingual educational programs in the Peruvian Amazon have had no outside, in-depth evaluation of their work among pre-literate tribes, this study not only will aid them in evaluating their work but also will add to man's body of knowledge in both education and anthropology. The field data was organized and
evaluated with respect to the Ticuna Indians and can be utilized only as it relates to the education of other culturally different minority groups in other countries. Although this study was directed to a multi-dimensional problem containing inherent complexity, it gained strength from its very interdisciplinary structure. Moreover, it was hoped that this research would significantly contribute to a better understanding of Indians in the Upper Amazon Basin and to the concepts, theories, and practices of Indian education in other locations. Furthermore, it was postulated that the study of a micro-system would have general applicability when viewed from, and in relation to, a general theory of bi-cultural education.

Moreover, educators and other interested persons in the United States should gain insight into the problems, methods, and educational practices of their Peruvian colleagues as these criteria relate to culturally deprived minority groups. More important still, it is hoped that as a direct result of this research there will accrue better social and political rapport between Peru and the United States.

Limitations

While some aspects of Ticuna culture were scrutinized to a deeper degree than others, this was only due to the press of time allowed for this research. Six weeks in the field would have not been enough time to accomplish such a study as this had it not been for the cooperation shown by
Lambert Anderson, a member of the Summer Institute of Linguistics who has lived with the Ticuna Indians since 1953, and certain Ticuna informants. It was assumed that the information gathered from these sources was factual.

A basic limitation inherent in many types of sociological and anthropological research is the cultural bias of the researcher. There has been no provision made in this research for this kind of a limitation. However, its existence must be noted.

No statistical treatment of the field data was attempted. The conclusions in this study were reached as a result of the comparisons of Ticuna culture both before and after extrinsic cultural influences, such as bilingual education.

Questions to Which Answers Were Sought

In addressing the problem of this study, that, how extrinsic cultural influences have altered the way of life of the Ticuna Indians at Cushillocococha, several questions needed to be answered. To accomplish the purposes herein described, the following specific questions have been answered:

1. What observable success has the Peruvian government experienced in dealing with the problems of Indian education in the Amazonia?

2. What validity is there to the proposition that bilingual education has an observable effect on the degree of integration of Peruvian Indian groups into the dominant culture?
3. What is the apparent effect of education on village morphology at Cushillocococha (as a criterion) compared to that of Marihuazu.

4. How have bilingual education programs, made possible through descriptive linguistics, accelerated or retarded acculturation of tribal people in Loreto Province, Peru?

5. How has bilingual education affected health, social, and economic conditions in selected Indian tribes in the Peruvian Amazon?

6. Does the curriculum utilized by the Peruvian government in the Bilingual Teacher-Training School at Yarinacocha have application to other locations?

7. Have the Ticuna Indians living at Cushillocococha been acculturated to a greater or lesser degree than were other members of that tribe living elsewhere in the Amazon Basin between 1953 and 1970?

These questions constitute a general conceptual and working structure commensurate with the specific objectives of this study.

Definitions

For the purposes of this study the following terms are defined:

1. Acculturation—the process whereby the traits of the dominant culture are acquired by an individual or minority group.
2. **Assimilation**—the mutual cultural diffusion through which persons or groups come to share a common culture.

3. **Basic Education**—the transmission of that body of knowledge which allows an individual to become functionally integrated into a given society at a fundamental or primary level. The major skill taught is the manipulation of the spoken vernacular.

4. **Bicultural Education**—the system of basic education which utilizes the language of a minority group and maintains the integrity of that group culture within an instructional frame. Bicultural education serves as a medium which tends to homogenize a minority group with the dominant society. Moreover, it recognizes that as a minority society is successfully integrated into the dominant culture a new social entity emerges. The new society embraces the dominant culture, yet retains those eufunctional traits inherent within the minority group. Bicultural education does not represent mindless conformity; rather, it is a cooperative process. Even as individuals stand alone in their personality, yet are members of a cooperative whole, so must bicultural education seek to socially integrate minority groups. The dominant culture through this medium can develop the outstanding characteristics of its subcultures by encouraging the useful talents of all its citizens. Bicultural education attempts to cultivate a reciprocal relationship between dominant and minority societies. Furthermore, bicultural education must understand
and respect the integrity of the minority group and must address itself, with greater detail and feeling, to the psychological problems of cultural integration.

5. **Bilingual Education**—the utilization of the language of a minority group, whose tongue is other than that of the dominant society, in their educational processes.

6. **Cultural Norm**—a standard of behavior acceptable to the majority of people within a society.

7. **Ecological Structure**—those complexes of people and institutions and their resultant interdependence.

8. **Eufunction**—the condition or state of affairs resulting from the operation of a structure that increases or maintains adaptation of a unit to its setting. It is the converse of disfunction.

9. **High-stress**—a condition resulting from the absorption of one society into another. Among other things, it is manifested by increased mortality, morbidity, apathy, force, and fraud (13, pp. 140-141).

10. **Institution**—a series of complexes or behavior patterns centered around an important human need, or an organized cluster of mores.

11. **Primitive**—a characteristic of societies exhibiting cultural homogeneity and relative isolation and pre-literacy and having relatively simple economic and technological institutions.
12. **Social Integration**—the eufunctional adaptation of the members of a minority group to the dominant system.

13. **Societal Structure**—the diverse cultural traits, complexes, and institutions as they are organized into a system of behavior patterns. These patterns are societal actions, such as well-reared and delinquent child, the definition of good things, and ways of relating to the supernatural.

14. **Spatial Structures**—those physical, non-living entities within the environment of a society and the manipulation of these entities by the members of the society.

15. **Taxonomic**—the identification, naming, and classification of related phenomena.

16. **Village Morphology**—the form and structure of community life among small homogeneous groups.

**Summary**

A practical method of teaching jungle Indians the Spanish language has alluded interested persons and groups for over 300 years. In 1946 the Summer Institute of Linguistics in collaboration with the Peruvian Ministry of Education set up a bilingual teacher-training course designed to equip Indian teachers with the Spanish language and skills necessary to instruct tribal people relative to the dominant culture (10, p. 84). Through the science of descriptive linguistics major, advances have been made, allowing selected tribes to become
literate, first in their own language, then in the national idiom. This study presumed to examine the results of bilingual education among the members of one tribe which has had such a program since about 1956.

The basic purposes of this study were to examine briefly the historical background of bilingual education in Peru, to describe the cultural ethos of the Ticuna Indians living in the Amazon Basin, and to describe the cultural development of the Ticuna living at Cushillococha up until August, 1970.
CHAPTER BIBLIOGRAPHY


CHAPTER II

REVIEW OF LITERATURE RELATED TO THIS STUDY

This chapter was devoted to an examination of acculturation studies carried out in several geographic and political areas: North America, Andean Mountains, and the Amazon Basin. There was little problem finding sufficient studies concerned with the acculturation of pre-literate and other-language minority groups; however, there was an apparent lack of multi-dimensional studies of the inhabitants of the Amazon Drainage Basin.

Chapter II is divided into the following four sections:

1. General information, which includes a brief discussion of the major bibliographic sources used in the present study.

2. Studies concerned with the acculturation of North American Indians.

3. Studies which dealt with the social and cultural ethos and development of Andean Indians.

4. Studies about the Ticuna Indians and other selected tribes living in the Amazon Basin.

5. Chapter summary, which includes a general discussion of the findings of several of the studies mentioned elsewhere in this chapter.
General Information

Several important bibliographic references for studies concerned with the acculturation of minority groups were used as a result of the present research. These were helpful in an analysis and choice of published materials used herein.

A major source of information concerned with acculturation studies was the Stanford Anthropological Series, published by the Stanford University Press. The first two volumes of this series (Culture Change: An Analysis and Bibliography of Anthropological Sources to 1952, Felix M. Keesing, editor; and Acculturation: Critical Abstracts, Bernard J. Siegel, editor) were both helpful in finding materials related to the present study that were published prior to 1952.

The most complete bibliographical source of anthropological studies concerning South American Indians was compiled by Timothy J. O'Leary and published by the Human Relations Institute, in 1963 (49). This volume, Ethnographic Bibliography of South America, is an invaluable tool for any student or researcher interested in South American Indians. While O'Leary has listed almost every study concerned with tribes living in South America published up until 1962, he apparently committed an error by placing all of the citations about the Ticuna Indians under the topic, "Brazil." Several of the studies listed by him concerned various tribes living in Peru, Colombia, and Brazil (49). O'Leary failed to cite
several early works that mentioned the Ticuna people of the Peruvian Amazon Basin. Of several works that O'Leary failed to cite, among the most important were the report in 1807 to the Peruvian government by Samuel Palacios Medeburu, which was concerned with the conditions of tribal people living in Loreto province (42), and an article by Jorge M. von Hassel, "Las tribus salvajes de la region amazonica del Peru," which appeared in Boletin Sociologico Geographia de Lima in 1905 (23).

A source of cultural information as well as a bibliographic source concerning the Indians of South America was the Handbook of South American Indians, by Julian H. Steward (70). The work done by Steward was an attempt to collect and systematize the published materials concerned with the aboriginal peoples of both Central and South America. His work is a collection of major research findings in the fields of Indian history, ethnology, archeology, and linguistics. Steward cited over thirty-five different references to the Ticunas which described many aspects of their contemporary society. In addition there were sections in his work that dealt with the apparent cultural alterations that have taken place among the Ticuna as a result of certain extrinsic influences and cultural contacts. The cultural contacts referred to include the pre-Conquest influence of the Omagua Indians, then the Spanish missionaries, and finally by the mestizos.
Collectively, O'Leary and Steward cited over eighty-six different books and articles which were concerned with the Ticuna Indians. However, these two editors did not cite a number of articles and books written in both Portuguese and Spanish. The most complete listing of ethnographic materials concerned with the Indians of the Brazilian Amazon is found in *Bibliographia Critica da Etnologia Brasileira*, edited by Herbert Baldus and published in Sao Paulo in 1954.

The studies dealt with in this chapter were, in the main, a review of research concerning the acculturation of several pre-literate and/or minority groups. In addition to this review of anthropological studies of Indians living in the United States and South America, the chapter was also interested in studies of cultural theory; namely, methods and techniques of arriving at the degree of acculturation enjoyed by particular minority groups. Of much concern was Parsons' (1934) work in the delineation of the basic nature of culture (52).

In addition to the materials previously mentioned, there were several other works which had a great deal of influence upon this project. George P. Murdock (1940) in his article, "The Cross Cultural Survey," a description and history of the Cross Culture Survey, had as his premise the basic sameness of mankind and brought an integrated multi-dimensionality to the fields of social study (44). The work of H. G. Barnett (1941) was not used directly; however, his study on personal
conflicts and acculturation had much influence on the frame of reference and bias of the present study. Of particular importance was the article by Melville J. Herskovits (1937), "The Significance of the Study of Acculturation for Anthropology." This article traced the historical development of anthropological research and was a springboard for the present study. Herskovits viewed acculturation studies as basic to any study of society or culture. He was the first to affirm that an historical and cultural base line must be established before any social study should begin (26).

North America

The impact of Western social influence on the native Indian cultures was and is a major event in their cultural history. Of special interest to this study was the impact of Spanish cultural intrusions upon the indigenous people living in the Southwestern United States.

The general effects and influence of the Spanish attempt to impose its societal system on the Indians of Mexico and the Southwest during the sixteenth, seventeenth, and eighteenth centuries are well known. Apparently, however, up until the 1940's little work had been done in trying to develop an analytical approach to the question of Spanish-Indian acculturation. It was perhaps a result of the social awakening of the 1930's that any real interest in the Indian cultural condition became evident. Not until this time did the position of the United States government become one of trying to
maintain and reinforce the cultural heritage of the Indian. In 1934, this position was made an official government policy by John Collier, Commissioner of Indian Affairs, in Indian Bureau Circular 2970:

No interference with Indian religious life or expression will hereafter be tolerated. The cultural history of Indians is in all respects to be considered equal to that of any non-Indian group. And it is desirable that Indians be bilingual-fluent and literate in the English language, and fluent in their vital, beautiful, and effective native languages. . . . The Indian arts are to be prized, nourished and honored (74).

What Edward H. Spicer (1954) calls a major event in the cultural history of the Southwestern Indians was in reality a series of events reaching back to 1540 (69). The initial period of Spanish influence, lasting approximately 300 years, was extremely difficult to analyze satisfactorily because of the lack of empirical data on the one hand and because of an uneven chronology on the other. The first writers to describe the American aborigine were Spanish and mestizo chroniclers, such as Fray Bernardino de Sahgun (1590), Mexico Antiguo; Don Fernando de Alva Ixtlilxochitl (1648), Obras Historicas; and D. Hernando Alvarado Tezozomoc (1598), Cronica Mexicana (4, 31, 59). These works and others of the same period were not intended as studies in ethnography but they may be used as such in modern research concerned with cultural anthropology.

The period after 1820 should be treated as a separate unit since one must deal with several new factors. The most important of these factors were the appearance of the Mexican
nation and the new dominant cultural patterns of the mestizo throughout the Americas. Another influence, perhaps equally as important as an aspect of Spanish-Indian cultural development, was the intrusion of the Anglo-American culture. Excellent background material for an historical study of this second period of influence was the work of Lee Huddleston (1967), *Origins of the American Indians*, in which he described the prejudices and attitudes of Europeans toward the Indians of the New World. His ideas were important because the Europeans' feelings and prejudices toward the Indians played a major role in shaping Western policy in the Americas. The Europeans' attitudes were, in no small measure, factors in the mestizo rebellions of the early nineteenth century (29). Zelda Nuttall (1901), in *The Fundamental Principles of Old and New World Civilization*, gives the reader insight into the culture of both European and American societies (48). There apparently has not been a thorough analysis of the cultural processes either in the earlier period or in the 1820-1930 period. Perhaps one could analyze the various cultural phenomena by examining contemporary works dealing with the historical aspects of the acculturation of Indian groups; that, however, was beyond the scope of this paper.

Researchers have employed a number of methods and techniques trying to discover the degree of acculturation a particular group has achieved. Edward Spicer's (1954) paper, "Spanish-Indian Acculturation in the Southwest," was an
attempt to synthesize the research and historical data available and to analyze the cultural processes in the period 1540-1820 (69). Elsie Clews Parsons' (1934) book, *Pueblo Indian Religion*, was essentially an attempt to delineate the nature of acculturation by describing examples of cultural borrowing, resistance, apathy, and disintegration (51). The same cultural phenomena were later described, defined, and analyzed by Marion J. Levy, Jr. (1952) in his landmark volume, *The Structure of Society* (35).

Since the early 1940's there have been a number of multi-dimensional studies undertaken in an attempt to arrive at the degree of acculturation of certain individuals and groups. Among these studies was a research project undertaken in 1939 by John Gillen and Victor Raimy. In their work they described a quantitative method of appraising the degree of individual acculturation and thus being able to ascertain group acculturation levels (20). Gillen and Raimy, in their study, separated an organized group of Chippewa into three categories depending on when and how the individual Indians had been introduced to Western culture, whether it had been from other Indians in more recent times, or whether they were introduced directly into white culture. A Likert five-point scale was used to measure personality self-concept in the following three major areas:

1. The concept of self as being Indian or white.
2. The concept of self as being a spirit worshipper or Christian.

3. The concept of self as being a hunter and gatherer or a wage earner (20, p. 348).

Merits of this research included the following: the research was directed toward people rather than being directed toward abstracts; quantitative descriptions were obtainable; and long periods of observation were not necessary.

In 1944 Eric K. Reed published "Aspects of Acculturation in the Southwest." This article, which appeared in Acta Americana, established a base line for understanding Spanish-Indian social relationships. While the Reed study dealt with the Navajo and Pueblo cultures in depth, it did not adequately deal with the problem of initial contact periods. Two points were made concerning the cultural integration of these two groups. First, there was little change in non-material culture even though there was much borrowing of spatial structures from the Spanish. Second, the Pueblo were resistant, in the main, to any changes that would have tended to alter their cultural identity (56).

An interesting study which was of benefit to the present research was Spicer's (1940) book, Pascua: A Yaqui Village in Arizona (68). His study, which examined one village in Arizona, was an attempt to examine and describe those factors which resulted in both cultural change and stability within the tribe. The study also examined the
general nature and processes at work in acculturation and integration among the Apache Indians. The major problem Spicer addressed was the determination of the character of contemporary integration. He worked within the context of the major cultural institutions. Equally as valuable to the present study was the book *Culture in Crisis: A Study of the Hopi Indians*, by Laura Thompson (1950). Thompson succinctly describes the mechanisms of acculturation from the context of Indian personality. This book, an example of a multi-dimensional study of the acculturation process, was an excellent source of information on Hopi society. A study that was comparable to the latter two studies was the San Ildefonso Project by William Whitman which was published in *Acculturation in Seven American Indian Tribes*, edited by Ralph Linton (36). The importance of the Whitman study was in the conclusions that he drew, at least one of which was controversial. The federal programs of directed acculturation apparently had less effect on Pueblo society than had the destructive forces of nature. Also, the idea that Spain had for all outward appearances obliterated native religion by replacing it with Roman Catholicism was brought out; in reality, the native religion had only gone into concealment. The Indians' use of the techniques of reticence and concealment have endured into more recent times, perhaps as a result of these early Spanish contacts.
Since the late 1930's, researchers have increasingly pursued the processes of acculturation from a psychological position. In 1946, Florence Hawley and Donovan Senter reported in the *Southwestern Journal of Anthropology* the continuity of personal reactions of members of Indian groups and the difference between basic personality structures as conflict occurred. The researchers observed both Spanish-Americans and Pueblos. Their study concurs with earlier studies that, while Pueblo Indians readily accept superficial structures, such as language, dress, and economics, there remain the old-way cultural patterns (24). In a study by Goldfrank (1952), similar results were obtained in the description of how the thrusts of Anglo-American and Anglo-Canadian culture affected two different Indian groups, the Blackfoot and the Pueblo. Goldfrank noted that the process of acculturation might be clearly described as a period of personality adjustment (21). A study which had much in common with the two preceding ones is the Florence Hawley (1948) research in several towns and villages of New Mexico. She investigated the relative position of institutions in both Indian and Spanish-American societies. Conflict is seen to arise among the tribal people, since the Indian cultural institutions are group oriented, while in Spanish-American towns the individual is at the center of the cultural system.

Donovan Senter (1945), in his article "Acculturation Among New Mexican Villagers in Comparison to Adjustment
Patterns of Other Spanish-Speaking Americans," examined the relationship of the Indian cultural adjustment patterns in respect to the adjustment patterns of various Spanish-speaking groups in the Southwestern United States. Senter concluded that the problems of cultural integration were generally explained as being those of two racially and culturally diverse groups, each thinking that the other was inferior. Senter further allowed that the Pochos of California and Texas were the extreme result of what he called "the minority paranoid complex." He concluded that World War II had done more toward the acculturation of minority groups than had any other fact of history (64). Another study which examined acculturation patterns was "Attitudes and Acculturation," by Laura Thompson (1948). By means of a Piaget-type guided interview of 1,000 Indian children, Thompson attempted to describe their attitudes and their relationship to acculturation. The sample was drawn from the Sioux, Ojibwa, Navajo, Papago, and Hopi Indians. Thompson concluded that there were certain psychocultural structures that, despite changes in economy, ecology, and social structure, had not changed. The major structures discussed in this research were cosmology and linguistic patterns (72).

In 1954 Spicer published the results of the continued research he had done in the field of Spanish-Indian acculturation. His article, "Spanish-Indian Acculturation in the Southwest," was published in the American Anthropologist.
The importance of this later study was found in the historical description of the initial contact of Spain with the Indians. The author discussed the relative differences in degree of acculturation exhibited by several Indian groups, among them the Eastern Pueblo, the Athabascan, and the Cochita. These tribal groups were studied in the light of their cultural history, their contact with Spain, and their subsequent social evolution (69).

Other studies concerned with acculturation of indigenous North Americans, consulted as background for the present research, included Victor Barnouw's (1950) book, *Acculturation and Personality Among the Wisconsin Chippewa*. This is a study which contrasted the degree of acculturation of the Chippewa with that of the Dakota (9). *Ethnography and Acculturation of the Fort Nelson Slave*, by John J. Honigmann (1941), was helpful since it was basically an historical survey which described pre- and post-contact periods (27). Certainly no study on acculturation would be complete without mentioning Margaret Mead's (1932) book, *The Changing Culture of an Indian Tribe*, a study of the tribal woman as she interacts and reacts with Anglo-American and Anglo-French contact (41).

No study of a pre-literate group would be complete without some mention of their linguistic patterns. In an attempt to gain some insight into this area several studies were examined. "Social Functions of Language in a Mexican-American Community," by George C. Baker (1947), was useful as
a base from which a cursory examination was made of the function of language in the acculturation process of a bilingual minority group (7). Moreover, the article, "Writing as a Medium of Acculturation Among the Aleut," by Jay E. Ransom (1945), was helpful since the Ticuna, like the Aleut, do not conceive the complete abstraction of written words as symbols for an act or a thing (55). William D. Altus (1949) in his article, "American Mexican: The Survival of a Culture," described the persistence of the linguistic functions of the Mexican culture as it related to Anglo-American cultural patterns (3). The research done by Omer C. Stewart (1952) that described the acculturation of the Southern Ute since about 1920 was helpful since the author not only called attention to the effects of modern technology on tribal integration but also treated factors which apparently contributed to their maladjustment (71). Stewart was particularly interested in individual personality adjustment to the dominant culture.

Several studies which had some bearing on the present research but are not discussed in detail include "Commentary on the United States Indian," by Theodore Haas (1964), "The Impact of Social Change on Certain Selected Social Systems of the Spanish-American Villages of Northern New Mexico," by C. D. Knowlton (1964), "Problems of Acculturation at Cochiti Pueblo, New Mexico," by Charles Lange (1952), "Culture of Contemporary El Cerrito, New Mexico," by C. P. Lomis (1941), Forgotten People, by G. I. Sanchez (1940), and The Indian

Andes

There was a basic social and cultural difference between the Indians of the sierra and those living in the jungle. The mountain people were, in the main, agriculturally oriented and relatively sedentary, while the jungle Indians usually were hunters and gatherers living in passive indifference or hostility toward the white man. Apparently the basic personality of the two groups of Indians was different, not only because of the geographical differences in their environments but also because of difference in the scope and duration of extrinsic cultural intrusion.

Of the many studies concerned with the Andean Indians perhaps the most complete, and certainly of major importance, was the Cornell Peru Project conducted by Cornell University in conjunction with the Peruvian government. The project included a program of research and development in Callejon de Huaylas, a mountain valley approximately 270 miles from Lima. Since December, 1951, this cooperative effort has significantly altered basic cultural and social institutions of the Indians living at Vicos. Of particular interest to the present study was the work done in improving Indian education at Vicos (2). The educational progress noted in the local schools from 1952 through 1963 was significant. The number
of Vicosinos who could speak and were literate in Spanish, as well as their native Quechua, rose approximately 15 percent. Before 1952, class attendance among the children of Vicos was restricted almost entirely to males, but after the project was started there was an increase in the number of female children in attendance (2, p. 430).

In addition to the multitude of studies about the Andean Indians of Peru there were also a large number of studies relating to Andean Indians in other countries of South America. Of particular interest was the book, The School in Otavalo Culture, by Jed A. Cooper, concerning the educational practices employed at Otavalo, Ecuador, and their relation to particular cultural traits of the Quechua living there. The study made by Cooper was one which related the importance of education and the basic Indian personality to the process of Quechua acculturation (15).

There were a number of descriptive studies of Andean Indians included as literature related to the present study. Most of these studies were of little comparative value, however. Two of the more recent of these studies included The Aymara Indians of the Lake of Titicaca Plateau, Bolivia, by Weston La Barre (34), and The Mapuche Indians of Chile, by Louis Faron (17).

Amazon Basin

There is little question that a number of societies throughout the civilized world are being destroyed; indeed,
have already been destroyed, leaving no trace. Their destruction has come about as a result of both assimilation into the dominant culture and mortality through disease and genocide. Up until the middle of this century the major thrusts by certain national governments toward the acculturation of pre-literate groups were to assimilate the smaller system as rapidly as possible despite social crisis and dysfunction. Theodore Stoddard (1967), as director of the Institute of Cross Cultural Research, related that migration, war, disease, and acculturation were together bringing about the decimation of many societies and that one of the most critical areas in this regard was the Amazon Basin. There was, according to Stoddard, a need for basic ethnographic research in the Amazonas before data disappeared or were altered (28, pp. v, vi).

Perhaps one of the more important recent books concerned with the ethnography of the Indians living in the Amazon Basin is Indians of Brazil in the Twentieth Century, edited by Janice H. Hopper (1967). This volume is a compendium of studies done by Dale W. Kietzman, Darcy Ribero, Eduardo Galvao, Herbert Baldus, and others. The authors divide the Brazilian Amazon into eleven cultural areas and then describe every known pre-literate tribe living in these areas (28). This volume is a valuable recent bibliographical source since it lists 161 anthropological articles and books dating from 1931 through 1968. The book is exclusively concerned with
the description of the Indians living in the Central Amazon Basin and that section of the Upper Amazon where the Ticuna live.

Dale W. Kietzman (1967), who is a contributor to the above mentioned book, indicates that the Ticuna is a tribe that has been designated as "in permanent contact" with the national society and that profound modification of their culture has occurred since initial cultural contact with the Spanish and the Portuguese (28, p. 154). He describes the Ticuna Indians as being

An exceptionally large tribe located between the lower course of the Solimoes (Amazon) and the Ica (Putumayo) rivers, including sections of Peru, Colombia, and Brazil. Official SPI figures place the population in Brazil at not over 1,500, but Summer Institute of Linguistics personnel who have traveled extensively in the tribal area suggest a total population which may reach above 10,000, approximately half of which is in Brazil. The section of the tribe located in Peru is much more acculturated and is experiencing economic progress (28, p. 12).

There were a number of descriptive works examined as a result of the present research which were written by travelers, missionaries, naturalists, and others in the seventeenth, eighteenth, and nineteenth centuries. Several works written in the early seventeenth century mentioned the Ticuna. One of the first authors to report the Ticuna Indians was Samuel Fritz. He described the Tukuna (Ticuna) living in Brazil. His work, Journal of the Travels and Labours of Father Samuel Fritz Worts, was made available in English in 1922, by the
Hakluyt Society of London (18). Cristobal de Acuna was thought to have been the first European to mention the Ticuna. His reports of travels in the New World between 1639 and 1641 were published in Madrid in 1891 (1). There were a number of other accounts which briefly touch on the Ticuna written during the eighteenth and nineteenth centuries. Unfortunately, many of the early writings were valueless from a scientific point of view.

The first North American writers to mention the Ticuna included William L. Herndon (1853), Exploration of the Valley of the Amazon; James Orton (1876), The Andes and the Amazon; Across the Continent of South America; and Daniel G. Brinton (1901), The American Race (25, 50, 13). These books were valuable since they contained source materials concerned with the cultural history of tribal people living in the Amazon. The above cited works followed the literary form established by Darwin and Humbolt; that is, they were highly detailed in the description of flora and fauna even though they were shallow from an anthropological point of view.

In relation to the present research, perhaps the most meaningful study of Amazon Indians was The Tukuna, by Curt Nimuendaju (1952). This study was first published in English by the University of California Press (47). On several occasions from 1939 until 1942, Niemuendaju lived with the Ticuna of Brazil. His description of the folklore and material culture of these people was quite accurate; however,
his information concerning Ticuna kinship was not completely correct. This apparent error, in fact, is discussed in Chapter IV of the present study. The Niemuendaju work was used as a comparative guide and reliability check of data.

There have been over 100 descriptive studies made of the inhabitants of the Amazon Basin between 1931 and 1970. Of these varied works a few stood out as being especially meaningful to the present research. Among the more interesting were articles and books by F. de Alviano (1946), "Noticias ethnográficas de los ticunas"; F. de Barcelona (1945), "Excursiones apostólica a los indios ticunas"; A. Boedeke and L. Hagen (1958), With Graiela to the Head Hunters; J. E. G. Coriat (1945), El hombre del amazonas; S. Ryden (1935), "Notes on a Knitting Technique from the Ticunas"; Hombu Schultz (1959), "Tukuna Maidens Come of Age"; Gerardo Reichel-Dolmatoff (1959), "Indígenas de colombia"; J. Vellard, "Les curares--leur préparation par les indiens sud-américains"; and Roberto Mac-Lean y Estenos (1962), "Indios en la selva del perú" (5, 6, 12, 16, 58, 63, 57, 75, 39).

Roberto Mac-Lean y Estenos, one of the more famous of the Peruvian sociologists, authors, and statesmen, presented in the above mentioned article the most complete overview, that is found in the contemporary literature, of the social conditions of the jungle Indians of Peru. In this article he discussed the basic cultural and social differences between mountain and jungle Indians. In addition, he related the
ill-treatment afforded these Indian people at the hands of unscrupulous dueños (any mestizo in a position of power over an Indian) and caucheros (rubber bosses). Of particular interest was his description of the six different work systems which operated in the jungle among the Indians. These systems were the following:

1. El trabajo indígena--work that is fundamentally concerned with Indian subsistence, such as gathering herbs for cures, making poison, making vegetable pigments, building canoes, and other such work.

2. El trabajo agrícola--agricultural work which was almost exclusively restricted to settlements, both large and small. This work included the cultivation and harvest of such crops as yucca, plátanos, maíz, and other truck products. This category of work also included the sale and barter of agricultural products.

3. El trabajo a destajo--piece work or contract labor which included working for wages but not on an hourly basis. This type of work was also related to the production of such agricultural commodities as coffee or cotton, where the workman was paid by the pound or by the piece as delivered to a buyer's warehouse.

4. El trabajo obrero--working for wages, which was carried on by both Indian men and women. This type of work was carried on only at or near the more affluent settlements, however.
5. El trabajo comercio--white-collar work which was restricted, in the main, to mestizos. A negligible minority of the Indians own commercial businesses.

6. El trabajo doméstico--typical work of women, which was the primary occupation of Indian women and girls. This included work both in the home and for hire. An interesting aside was the statement made by the author: "Cuando trabajan para personas solas o forásteras deviene rapidamente en su concubina" (38, p. 115). His observation that domestics often become the concubines of their masters is especially true in the jungle.

Summary

The information contained in this chapter, while related to the present study, was intended primarily as a cross-section of literature available in the areas of acculturation and cultural anthropology among selected Indian groups found in the Americas.

While there were a large number of anthropological studies available, they were of little direct aid in preparing for the present study. These studies were valuable, however, as guides in the field research. This was particularly true of the Case Studies in Cultural Anthropology series published by Holt, Rinehart and Winston. There were no comprehensive descriptive studies dealing with the Ticuna Indians of Peru found in the literature. Anthropological and acculturation
studies of other South American Indian groups were interesting but of limited value. Of all of the literature cited, perhaps the most helpful was the Niemuendaju (1942) book, *The Tukuna*. It was the only point of comparative reference available concerning the Ticuna of Peru.

Articles, monographs, and other materials which related to jungle Indian education in Peru were not cited in Chapter II. The materials that were available in this regard were utilized in the following chapter that was concerned, in the first section, with the history of bilingual education in Peru.
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CHAPTER III
PROCEDURES OF THE STUDY AND HISTORICAL SKETCH
OF JUNGLE INDIAN EDUCATION IN PERU

Introduction

This chapter sets forth both the methodological approach to the actual field study and a short examination of the historical background of modern bilingual education in the Peruvian Amazon jungle. The historical section contains both a review of Peruvian federal legislation in this area and an historical description of the work of the Instituto Lingüístico de Verano in Peru since the early 1940's.

Much of the work on the historical aspect of this study was done at North Texas State University, Denton, Texas, during the 1969-1970 school year. Library materials not available at North Texas State University were obtained for the most part through the Inter-Library Loan Service. The majority of the research for this section of the study took place during a ten-day stay at the Summer Institute of Linguistics Yarinacocha Base, in Peru. The Instituto Lingüístico de Verano opened its library, files, and archives for research, and without its assistance, this section of the paper would have been incomplete.

Field data were gathered both at Marihuazu, Brazil, and Cushillocococha, Peru, during the months of June and July, 1970.
During this period short observation trips were also made to other Ticuna settlements, both on the Amazon-Solimões and on several of its tributaries. Some of the other Ticuna villages visited included Bellavista, Peru, and unnamed settlements near Tabatinga, Brazil; Caballochocha, Peru; and Leticia, Colombia.

Methods of Research

The methodological approach used by this research followed that described by the cross-cultural survey in the manual, Outline of Cultural Materials (17). Since the major thrust of the present research was the description of the material culture of the Ticuna Indians, then the only method feasible to accomplish the purposes herein described was direct gathering of data in the field.

Much of the historical information concerning Cushillococha and Marihuazu was obtained from an examination of village archives at Cushillococha and from interviews with village elders at both locations. The choice of informants for this phase of the study was made with the aid of Lambert Anderson, a linguist working with the Summer Institute of Linguistics since 1953, and Leonardo Witancourt, the elected mayor of Cushillococha. The selection of informants in Marihuazu was more difficult, however. The chief of Marihuazu agreed to relate all that he knew concerning his village. He was the only Brazilian informant used. As an added validity
check, one of the Ticuna living at Cushillococha, Pastor Valencia, authenticated the data obtained from the Brasilian informant. Pastor had several relatives living at Marihuazu and therefore could readily check the information about that location. Another informant, Mike Tasalikis, an American entrepreneur who had lived seventeen years in Leticia, gave much valuable assistance during the course of the field research as well as information concerning the development and social conditions at Marihuazu. Tasalikis had been trading with the Ticuna there for approximately fifteen years.

Peruvian federal documents were reviewed for factual data. Some of these documents were reproduced and appear in the appendices. One of the major aids in the historical study of Indian education in Peru was the extensive collection of publications of the Ministerio de Educación Pública held by the Linguistic Library of the Summer Institute of Linguistics in Peru.

Techniques used during the field study for establishing rapport with the Ticuna were twofold. First, a friendly attitude was maintained at all times toward the Indians. Second, native informants were obtained who were both known to the American members of the Institute and were sympathetic to this study. A major avenue for maintaining friendly relations with the Indians was use of their natural curiosity and love of children. James H. Sullivan, an eleven-year old American boy, was a member of the field party. This young man
proved invaluable in quickly breaking down much of the Indians' natural distrust of a single white man.

Most of the recording of ethnographic data was done in the field through the use of notebooks, tape recorder, and camera. Post-interview summaries and authenticity checks were necessary, in a few instances, to insure the reliability of particular data. A daily diary of personal impressions was kept and was invaluable in formulating the research conclusions.

An attempt was made to enter into daily community life at both Cushillococha and Marihuzau. This was partially accomplished by living with a native family in Cushillococha, taking meals with them, and otherwise becoming just another member of the household. The arrangement apparently worked quite well since after the first few days, in both locations, the families involved quit trying to do "extras" and assumed their normal routine of life. This was one of the more important aspects of the field research--to let the Indian see that one trusts and respects him to the point of taking an active part in his way of life.

Historical Notes on Jungle Indian Education in Peru

As stated earlier in this paper, the Peruvians have from their independence, in 1821, been aware of the identity and needs of their indigenous population. José de San Martín, in proclaiming Peruvian independence, stated in the decree of August 27, 1821, fourth paragraph, "En adelante no se
denominaran los aborígenes Indios o Naturales; ellos son hijos
y ciudadanos del Perú y con el nombre de 'Peruanos,' deben ser
conocidos" (11, pp. 7-8). (That in the future the indigenous
population are not to be called Indian; rather, they are to
be known as brothers and citizens; they are to be known as
Peruvians.)

In the early days of the republic there was much division
among Peruvians concerning what to do with their indigenous
tribal people. In a letter to the president of Peru in 1887,
Samuel Palacios Mendebaru stated:

El Salvaje, hijo de la naturaliza, no esta
todavía en condiciones de comprender las compensa-
ciones de la vida futura, libre en su elemento,
sometido a un sistema social, cuyas exigencias
satisface dentro del medio en que vive, no com-
prenden ni tienen que sufrir el yugo de la opresión.
El que sabe la tierra se ve obligado a sufrir,
creé i espera en la recompensa que le reserva el
mistério de la muerte; pero el salvaje que lucha
ventajosamente por la existencia, no siente
la necesidad de una justicia absoluta, ni tiene la
noción de esa recompensa (13).

In this same vein, Mendebaru went on to say that almost
300 years of Christianity had not done as much for the jungle
Indians as had ten years of commercial trade (14). This re-
port was written just two years before the beginning of the
rubber boom (1890-1911), and by 1895 the exploitation of the
Indians by the caucheros was at its height.

Franciscan monks, in October, 1757, established a mission
and a school at Santa Rosa de Ocopa. This mission school was
one of the first established in the Amazonia. The monks'
stated purpose was the following:
The Catholic mission schools were for the most part failures since they did not achieve their lofty objective. Also, these schools were in direct contradiction of the Indians' basic cultural personality. This was especially true of certain Indians who had never been subject to the order of their own kind, let alone the order of foreigners. Most of the jungle Indians were nomadic, and the priests required them to remain at the missions, to dress in Western garb, and to till the mission fields. These efforts at acculturation of the Indians usually resulted in rebellion, usually violent.

Nothing was done of any consequence in jungle Indian education, throughout the Amazonia, until near the middle of the twentieth century. There were two basic reasons for this. First, there was no method of analyzing the languages of the pre-literate groups. This problem had defied educators for the past 300 years. This problem was not one of learning an Indian language; rather it was the problem of reducing an unknown language to writing and teaching in that language. Second, up until the social awakening during the early twentieth century, few people cared one way or the other about the Indians' rights as human beings. By 1943, the time for active progress was right. There had been a series of Indian protection laws and decrees established in Peru long before
1943. The first of these was Pierolas enactment, on May 22, 1880, of the Protectorado de la Raza Indígena (11, p. 37). Again, in the Constitution of 1920, Article 58 states that Indian communities (villages) legally existed and were to be allowed special considerations by the government (11, p. 40). In 1921, A. B. Leguia, President of Peru, set up by means of the Decreto Supremo de 21 de Septiembre de 1921, a section for Indian matters under the administration of the Ministry of Development (Ministerio 'de Fomento). This organization had the powers of inspection, investigation, claims, and education of Indians. The new bureau was responsible for all matters pertaining to the Indians, much like the Bureau of Indian Affairs in the United States of America (11, pp. 41-44). The Consejo Superior de Asuntos Indígenas that was created by O. R. Benavides, President of Peru in 1935, had basically the same powers as the above mentioned Section for Indian Matters (11, p. 55). Even though there was much Indian legislation on the books, little benefit accrued to the jungle Indians.

The first Rio de Janeiro Conference, June 24, 1934, between Colombia and Peru was touted as setting the stage for a new day in Amazon Indian relations. Article 17 of this pact stated that the two states recognized and would uphold the basic human dignity and right to work of the Indian and to improve his condition, no matter whether he was civilized or living in the jungle. Article 18 came directly to the point in addressing the problem of Indian education:
Artículo 18.--En lo que refiere a los habitantes de la selva, inadaptados o no adaptados completamente a la civilización dichos dos Estados reconocen como un deber fundamental ocuparse asiduamente, y con el fin de defenderlas, educarlas, ayudarlas y mejorar sus condiciones presentes;

a) Se facilitara el desarrollo de la instrucción pública por medio de la creación de escuelas, en las cuales la enseñanza se dará en las lenguas Indígenas... (11, p. 57).

In 1936, Peru entered into several ententes, concerning Indian development and acculturation, with Colombia and Bolivia (5, pp. 59-71 passim). In 1938, a Peruvian delegation met in convention with Costa Rica, Cuba, Panama, Ecuador, Salvador, Honduras, Mexico, Nicaragua, and the United States of America. This convention established the Instituto Indigenista Interamericano (5, pp. 5-15 passim). The governments of these nations were moved by a desire to create an effective instrument whereby they could more effectively collaborate in the solution of Indian problems. The Instituto Indigenista Interamericano had eleven basic functions as set forth in Article IV of the Convención:

1. Act as the permanent commission of the Congreso Indigenistas Interamericanos and to maintain the records of the institution.

2. Collect, publish, and distribute information concerning scientific investigation, legislation, activities of institutions, social and cultural development, and recommendations from Indians about Indian problems or affairs.

3. Initiate, direct, and coordinate research in Indian affairs.
4. Publish an official organ.

5. Administer funds dedicated to the solution of Indian problems.

6. Cooperate with member nations which request aid in the form of technical consultation.

7. Cooperate in the work of the Pan American Union as relative to Indian problems and solicit the cooperation of the Union.

8. Create and authorize the establishment of commissions for technical consultation in accordance with the wishes of member nations.

9. Recruit, stimulate, and coordinate the training of technical experts and consultants in Indian affairs.

10. Stimulate the interchange of personnel and information concerned with Indian affairs and problems.

11. Promulgate the above mentioned activities through the offices of the Congresos Indigenistas Interamericanos and through the Consejo Directivo and in accordance with the Convención (5, pp. 7-8).

The Instituto Indigenista Peruano was established May 15, 1946, by Presidential resolution (5, p. 18). In the late 1940's, Peru began making strides toward the solution of many of her Indian problems. Most of the efforts and concern for Indians in Peru were directed toward the Andean Indians, however. Attempts to better integrate the Quechua speaking people into mainstream Peruvian life were made. The Cornell Project was a case in point.
In 1943, a meeting took place in Lima between Kenneth Pike, now Director of the Summer Institute of Linguistics at the University of Oklahoma, and the Peruvian Minister of Education (28, p. 153). This meeting proved to be the prelude to events that were to change the destiny of the jungle Indians of Peru. Indeed, the objectives and programs of the Summer Institute of Linguistics, as explained by Pike, were to have great impact on the Indians of the entire Amazonia.

Partially, as a result of Pike's trip to Peru in 1943, Manuel Prado, President of Peru, invited Cameron Townsend to Lima the following year. The aim of Townsend's proposed visit was to investigate how the Summer Institute of Linguistics could collaborate with the Ministry of Education in an attempt to ameliorate some of the social problems facing Peruvian jungle Indians. Of particular importance to the Institute and the Ministry were the problems specifically concerned with education. It was not until 1945 that Townsend was able to accept Prado's invitation (20, p. 175).

On June 28, 1945, the Ministerio de Educación Pública del Perú and the Summer Institute of Linguistics, affiliated with the University of Oklahoma, entered into a contract. This contract made it possible for these two agents to collaborate in an extensive linguistic and educational investigation. This investigation was primarily to be among the jungle Indians of Peru. (Note Appendix B.)
The premise upon which all of the Summer Institute of Linguistics' programs are based is that an Indian can be taught a national language more effectively if he is taught first to read and write his mother tongue. Since the majority of the tribal languages spoken in Peru had not yet been reduced to writing, an intensive linguistic analysis of these languages was the first order of business. In addition to linguistic work, the original contract contained eleven specific areas of responsibility on the part of the Summer Institute of Linguistics, as follows:

1. Institute a profound study of every Indian language in Peru. This would include an adequate analysis of the phonetics and morphology of each language.

2. Undertake a comprehensive compilation of each tribes' folklore.

3. Make comparative studies between the various language groups of Peru. Compare them with each other and with other world language systems.

4. Preserve each Peruvian Indian language for posterity.

5. Compile anthropological data on each tribe.

6. Keep a photographic record of phenomena of anthropological interest.

7. Study the songs and folk tales of each tribe.

8. Be of service as interpreters for government officials and others as directed or as necessary.


11. Translate literary works concerned with the economic, intellectual, moral, and patriotic betterment of the jungle dweller into the Indian languages.

A copy of this contract is found in the appendices.

It is obvious from the foregoing that the initial program of the Institute in Peru was both ambitious and optimistic. However, as will be seen, both were understatements.

In 1946, the first twenty-five members of the Summer Institute of Linguistics team arrived in Peru. The first home of the Institute was in the government tourist hotel at Aguaytia (29, p. 3). By June, 1949, the Institute had moved to its base to the permanent location at Yarinacocha near Pucallpa on the Ucayali River (9). During the first years the Institute was in Peru, the linguistic teams spent much of their time attempting, with greater or lesser degrees of success, to analyze several tribal languages. Among the first tribes to receive such attention were the Aguaruna in July, 1946, the Amuesha, the Amahuaca, and the Machiguengas (29, pp. 7-9). It was not until January, 1953, that the first bilingual training course was begun at Yarinacocha Base (25). This first course, Curso de Capacitación para Nativos Alfabetizados de la Selva Peruana, was a collaborative effort between the Ministerio de Educación Pública and the Institute (23). This course continued until 1964 as a qualification course to give native teachers and linguistic workers competency
both in basic literacy and pedagogy, all within an Indian cultural context (4).

Early in his career, Cameron Townsend had arrived at two conclusions which were later to become the basic policy of the Summer Institute of Linguistics concerning the education of other language tribal people. First, the person best able to teach Indians was an Indian; also the teacher must be a leader among his own people. The reasoning was that an Indian teacher would not have to overcome the barriers of language and culture before beginning to teach. In addition, an Indian teacher would be oriented already toward the particular tribal community he had come from. Second, an Indian who first learns to read and write in his own language will have much less difficulty reading and writing the lingua franca. More important, the Indian who experiences bilingual education may more quickly become a functioning part of the national society (28, pp. 4-5).

In light of these ideas, the Plan de Acción para 1956 was promulgated by the Ministry of Education. This program was in response to the Plan de Educación Nacional de 1950 (6). Part F of the National Plan, "Con El Instituto Lingüístico de la Universidad de Oklahoma," contains nine provisions:

1. Continue the bilingual training program in operation at Yarinacocha Base.

2. Establish a rural school at Yarinacocha, Pucallpa.
3. Implement a program of rural education with an agricultural orientation on 106 hectares of land adjacent to Yarinacocha Base.

4. Continue publishing bilingual textbooks and other publications of a scientific nature.

5. Continue the program of constructing bilingual jungle schools with the cooperation of the Ministry of Education.

6. Continue the programs of linguistic investigation and analysis of the twenty-seven tribe languages under investigation.

7. Study the possibility of establishing new contacts with other pre-literate groups, with special emphasis to be made in the Department of Madre de Dios in southeastern Peru.

8. Publish, in official form the results of the comparative linguistic study of the various jungle languages where analysis was complete (20, pp. 11-12).

By 1957, the Summer Institute of Linguistics had 173 members in Peru. Half of these were linguistic personnel; the other half were support people such as aircraft pilots, mechanics, radio technicians, doctors, nurses, and agronomists. There were linguistic teams* working with the following thirty different tribal groups:

*The linguistic teams, husband and wife or two single people, usually spent six months with the tribe doing linguistic and anthropological work; took a one-month vacation; and then spent five months at Yarinacocha, organizing and analyzing data.
Aguarune  
Amahaca  
Amuersha  
Arabelo  
Bora  
Campa  
Candoshi (Shapra, Murato)  
Capanahua  
Chayahuita  
Cocama  
Culina  
Huachipari

Huambisa  
Huitoto-Muinane  
Huitoto-Murui  
Iquitos  
Jeberos  
Orejón  
Piro  
Quechua (Inga)  
Shimigae (Andoa)  
Shipibo  
Ticuna  
Yagua (28, p. 176).

The activity of the Institute in Peru between May, 1956, and May, 1957, was impressive but not out of the ordinary. In addition to educational programs, the Institute carried out exploration in several relatively unknown regions of six Peruvian rivers: The Rio Colorado, Maranon, Perene, Nanay, Napo, and Acre. As a result of these explorations and other trips, the following Indian groups not yet studied were encountered:

1. The Mayoruna, Remo, and Marubo tribal groups were nomadic jungle Indians whose primitive culture was unknown. They were encountered on the upper Amazon, Yavani, and south of the Ucayali Rivers.

2. The Shimacu Indians were discovered on the head waters of the Chambira River, which flows into the Rio Maranon.

3. The Yaminahua people were first encountered in April, 1957, on the upper Purus River.

4. And, certain groups of the Huarayos in southeastern Madre de Dios were contacted for the first time (22).

During this same period, the Institute published a number of technological, linguistic, and ethnological papers. Most
of these appeared in the *International Journal of American Linguistics*. The other articles and papers were divided among eleven other learned journals and foundation publications. In addition, the Institute published nine new textbooks for use in the *Curso de Capacitación* (9).

In 1956, the Institute offered a new course at Yarinacocha. This was a result of the wish of the government to stimulate scientific farming and cattle raising among jungle Indians. An agricultural course was inaugurated on an experimental basis. The first class had two Indian students, one Amuesha and one Piro. This first trial was a success, and in 1957 there were four students accepted in the *Curso de Adiestramiento de Dirigentes Agrícolas Procedente de las Tribus Selvicolas del Perú* (28, p. 186).

At this time, 1957, there were forty bilingual schools in the jungle. These schools were distributed among the following tribes: Amuesha, Bora, Cashibo, Cocama, Machiguenga, Ocaina, Piro, and Shipibo. There were approximately 1,150 children enrolled who were taught by forty-eight bilingual teachers (28, pp. 182-183). At this time, approximately 100 different bilingual texts and several monolingual texts were being used in the primary schools. The Ministry of Education had edited several of these monolingual texts for use throughout the Republic in all public schools. The Institute also collaborated in the *Plan de Alfabetización y Educación de Adolescentes y Adultos*. This was an attempt by the Peruvian
government to wipe out adult illiteracy on a national scale. By having classes for older monolingual Indian adolescents and adults usually one or two nights per week, the bilingual schools could utilize the same basic texts and facilities of the regular Indian schools. This program has proven effective among many of the jungle Indians.

The accomplishments in several other phases of the work during 1956 and 1957 were also noteworthy. The Jungle Aviation and Radio Service, which is the service organization associated with the Institute, flew a total of 1,874 hours. The organization transported linguists, teachers, medical personnel, and others to the most remote reaches of the Peruvian Amazon. As an adjunct to the air service four new jungle airstrips were built in some hitherto almost unreachable locations (28, pp. 188-189).

In 1963, twenty years after Kenneth Pike had first gone to Peru at the request of the American Bible Society, the Summer Institute of Linguistics was well established in that country. The Institute had more than achieved the goals set in 1945. By 1963, four new tribes had been added to the 1957 list: the Amarakaeri, Nomatsiguenga, Urarina, and Jivaro. The Jungle Aviation and Radio Service (JAARS) had eight aircraft. In 1963, the pilots flew 189 flights, totaling 2,160 hours. The radio network maintained regular radio communications with linguists in the tribes as well as several "nets" to the United States (23, pp. 129-132). There were several
secondary services mentioned in the 1962-1963 progress report to the Ministry of Education. These services which were in addition to the Institute's primary linguistic work included the following:

1. **Servicio Aéreo** (Jungle Aviation and Radio Service)—described above.

2. **Servicio Radio-Telefonico** (Jungle Aviation and Radio Service)—described above.

3. **Servicio Medico** (Medical Service)—During April and May, 1961, the medical service treated 1,039 Indians. Members of the group gave 1,050 blood tests for malaria, 1,426 TB skin tests, administered 643 DPT injections, treated 244 active cases of leishmaniasis, and gave 8,850 injections for leishmaniasis among the Aguarunas.

4. **Servicio Pedagogico** (Teacher Training)—Administered and taught the *Curso de Capacitación* for bilingual teachers at Yarinacocha Base.

5. **Servicio Agrícola** (Agricultural Service)—In 1962, there were nine tribal leaders enrolled in the agricultural course begun in 1956 (23, pp. 132-134).

To accomplish these services the Summer Institute of Linguistics had 138 active members in Peru. In addition, there were forty-two members of the Institute in the United States on leave doing advanced academic work and attending to personal affairs (23, p. 135)
Until 1963, the Curso de Capacitación consisted of two major elements. First, Indian leaders from those communities having Institute workers received basic literacy training in Spanish, within a Peruvian cultural context. Then, after achieving basic literacy these individuals obtained elemental pedagogical training so that they could impart, with greater facility, their new-found literacy in Spanish. Another purpose of the teacher-training course was to attempt to relate important cultural truths concerning their nation to the participating Indians. These accomplishments were made during one summer cycle which lasted from January through March (28, p. 2).

Since 1964, the teacher-training course has operated in a slightly different manner. Under the new plan, entitled Curso de Capacitación para Maestros Bilingües de la Selva, there were two training cycles: one, the basic cycle as had been in effect since 1953; the second, a more intensive teacher-training course. The second cycle was designed to supply the Indian teacher with the necessary competency to establish and operate a bilingual school. According to Resolución Ministerial No. 868 of February 26, 1964, the course offered at the Bilingual Teacher Training Center at Yarinacocha was enlarged to include the necessary preparation that would allow the graduating students to qualify for a primary school teacher's certificate (25, p. 3).
By 1970, the Bilingual Teacher Training Course had developed to the point that it embraced the following general goals:

1. Allow students aspiring to become teachers to obtain the necessary competency that they might excel as professional teachers.

2. Give the Indian teacher, in training, the necessary technical background in both pedagogy and the practical or methodological aspects of bilingual education.

3. Inculcate and firm the moral and social character of the bilingual Indian teacher so that he might be a real contributor to Peruvian democracy.

4. Orient the new teacher as a social leader and as an agent of cultural and material progress in his community.

5. Teach certain manual courses such as carpentry, accounting, and the like, so that the participating Indians could teach and utilize these skills to the betterment of their community.

6. Insure the adoption, by the bilingual teacher, of good health habits so that he might be a collaborator in the betterment of human health in his village.

7. Better the individual teacher's knowledge and facility with Spanish so that he might be a better instrument in the process of integrating his people into national life (25, pp. 1-4).
On July 3, 1969, the contract that was made between the Ministry of Education and the Summer Institute of Linguistics on June 28, 1945, was reaffirmed by the Peruvian Revolutionary Government through Resolución Suprema No. 0713 (12). In the twenty-five years that the Summer Institute of Linguistics had been in Peru working in collaboration with the Ministerio de Educación Pública, it had analyzed thirty-five different jungle Indian languages. Each tribal language was given a scientific alphabet that was as closely adapted to the Spanish alphabet as possible. This in itself would have been a signal accomplishment, but in addition to this the Institute's press had published four different Indian dictionaries and eighty-nine technical articles concerning the various aspects of grammar, phonetics, and origin of these Indian languages. In addition, members of the Institute had published approximately twenty-five articles on Indian ethnology and cultural anthropology. As the Institute had promised the Ministry of Education in 1953, its members had by 1970 translated much of the New Testament into thirty-one Indian languages. This included the translation of the complete New Testament in both Piro and Ticuna. The Institute had prepared in twenty-nine languages eight textbooks, six mathematics books, and three other textbooks concerned with natural history and Peruvian social life. These texts were being used in the jungle bilingual schools.
Since the beginning of the Curso de Capacitación para Maestros Bilingües de la Selva created in November, 1952, more than 300 young Indian leaders representing twenty different ethno-linguistic groups have completed their training and have been certified as bilingual teachers. Of this number 257 are presently at work serving in 155 different Indian schools teaching approximately 6,500 children and as many as 1,000 illiterate adults. Many of these bilingual teachers periodically return to Yarinacocha to improve themselves academically. More than 120 of these teachers have gone on to enroll in summer courses so that they could complete secondary school training and receive their certification. The young Indian teachers have done all of this in order to better serve their communities.

By 1970, in addition to their teacher training activities, the Ministry of Education and the Institute had established at Yarinacocha Base several occupational courses designed for graduates of the local bilingual schools. There were courses offered in six areas: agriculture, carpentry, mechanics, business, sanitation, and home economics. By 1970, over 450 Indian students had taken these industrial arts and occupational courses and returned to their tribes taking newly learned competencies with them (13).

The Summer Institute of Linguistics was instrumental in causing medical centers to be set up in twenty isolated Indian communities in the jungle. These centers were manned
by Indian technicians who were trained at the Yarinacocha Base. In over 150 Indian communities the bilingual teacher had completed a sanitation course and was acting in the additional capacity of community health agent. Each Indian teacher took copies of a health manual, *Manual de Auxilios para el Promotor de Salud*, with him when he returned to his tribe after completing the training program at Yarinacocha. This manual is used as a guide in the establishment of community health projects. Equally as important to the Indians were outlines, that the teachers took back to the tribes, which contained information which would assist individual families to establish their own health programs. In considering the activities of the Indian teachers as health agents, it was estimated that Institute personnel and Indian technicians had given over 250,000 injections in the years 1946-1966 (29, p. 25).

A step forward for the jungle Indians of Peru was the Policy of the Ministry of Agriculture to give them title to the land that they occupied as a tribe. Individual Indians could get personal title to portions of the tribal lands if they could show the ability to properly utilize the land. One way the Indian could show both the need for the land and the ability to utilize it was by completing certain of the academic and vocational courses offered at Yarinacocha Base (9).
The Work of the Jungle Aviation and Radio Service

All of the work of integrating the jungle Indians of Peru into mainstream Peruvian life could not have been accomplished without the aid of air transportation and radio communications of the Jungle Aviation and Radio Service. The airplane was utilized not only for transporting linguistic personnel and supplies but also to carry seed, trees, tools, medicine, and even cattle to the remote tribal settlements of the Amazon jungle. All of the work done by this branch of the Summer Institute of Linguistics was in an attempt to raise the Indian culturally and socially from his primitive state.

On April 30, 1951, four ministries of the Peruvian government, Educación, Salud Pública, Trabajo y Asuntos Indígenas, and Aeronáuticos Civil signed a contract with the Summer Institute of Linguistics to assist in the maintenance and operation of a PBY Catalina flying boat. This airplane had been donated to the Institute by the people of Mexico. In 1956, a similar contract was consummated between the same parties in regard to a Helio-Courier which was donated by the people of Orange, California. At the present time (1970), the Jungle Aviation and Radio Service operates the Catalina, two land-based Helio-Couriers, one Helio-Courier on floats, one Cessna Skywagon on floats, and one Cessna 185 on floats. During 1969, these airplanes logged well over 2,800 flights to all parts of the jungle. (Note Appendix IV for routes and points regularly flown to by JAARS).
Summary

It was obvious that the work of the Summer Institute of Linguistics in Peru is a cooperative and highly complex operation. If it were not for the cooperation between the Peruvian government and the Institute, this undertaking would not have been possible.

The Summer Institute of Linguistics first came to Peru in 1946 and since that time has steadily expanded its work among the jungle Indian tribes east of the Andes. The work among the tribes was primarily linguistic and educational; however, the Institute also was engaged in such diverse fields as cattle raising, agriculture, medical programs, community development, jungle aviation, radio communications, anthropological research, and projects concerned with the social, spiritual, and physical betterment of the jungle Indians.

Normally, a linguistic team moved into a tribal settlement where they would analyze the Indian language and create a written alphabet. The next step was to help the Indians establish bilingual schools. These schools were designed to teach the Indians to read and write, first in their own language, then in the national idiom. The school became a center for the entire village as the arts and crafts of civilization were introduced to the Indians. Commercial activities and economic development were encouraged by the linguistic teams. This will be considered in detail in Chapter V, as relating to Cushillococha.
The Institute administered the Bilingual Teacher Training Program as well as other federal training courses offered at Yarinacocha Base. During a four-month period, January through April each year, the base was crowded to capacity. Indians from every part of the jungle took part in various courses of instruction that were offered. In addition to the academic courses offered between January and April, Indians came to Yarinacocha Base each year between May and December for the various occupational courses that were offered. These courses included agriculture, animal husbandry, carpentry, mechanics, commerce, health, home economics, and others. Technical assistance in the field was given to the Indians from both Institute personnel and several government agencies that had specialists present at Yarinacocha Base.

In 1970, there was linguistic and educational work going on among thirty-four different tribal groups. There were eighty-three linguists of the Instituto Lingüístico de Verano del Perú actively working among the jungle Indians in their villages and at Yarinacocha Base. The base at Yarinacocha was in daily radio contact with each linguistic team in the field. In 1970, the Institute's air arm, the Jungle Aviation and Radio Service, operated on a regular basis several aircraft, both float planes and conventional, to and from the various jungle stations. In addition, the aircraft were available both for emergency flights and to Peruvian government agencies for flights throughout the Amazonia.
In addition, the Institute operated a modern clinic at Yarinacocha, staffed by American doctors and nurses. The clinic staff not only handled in-patients but also dispensed vaccinations and administered health programs in the Indian villages. The clinic operated a radio link with the tribes, whereby diagnosis and prescriptions were prescribed over the air.

The work that was going on in the Peruvian jungles, work concerned with acculturating and integrating pre-literate Indians into the dominant culture, would have been impossible had it not been for the talent and dedication of William Cameron Townsend and the linguistic expertise of Kenneth L. Pike. Townsend was the spirit of all the good that has happened through the Summer Institute of Linguistics, not only in Peru but in the world-wide programs of the Institute. Even so, little would have been accomplished by the Institute without these men and others who had an abiding trust in and commitment to Christ. The Spirit of Christ was felt at Yarinacocha Base. This same spirit was also felt on a remote jungle stream in a canoe with a jungle Indian who a decade ago was taking the heads of his neighbors; an Indian who a decade ago had a natural life expectancy of no more than approximately thirty years; an Indian who now is telling how much better it is to be the chief of his village because of love and respect rather than through brute force as before.
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CHAPTER IV

A DESCRIPTION OF TICUNA CULTURE IN 1970

Introduction

This chapter briefly reflects the historical background of the Ticuna Indians. In addition, it contains a geographical description of the area of influence and habitation of this group of Indians. Included in the first section of this chapter is a review of scientific exploration of Ticunaland since 1928.* The latter portion of the chapter contains the following group of descriptive sketches of certain cultural phenomena:

1. Society and culture, which include a description of the family and home, daily living patterns, kinship structure, and life cycle.

2. Subsistence, which includes a description of the preparation of certain foods and beverages, agriculture, husbandry, fishing, hunting, and gathering.

3. Material culture, which is the description of certain spatial structures found among the Ticuna.

*According to Nimuendaju, no one had studied the Ticuna Indians living in their village habitat prior to his first stay among them. This description appeared in an article published in 1930, "Besuch bei den Tukuna-Indianern," in the German ethnographic journal Ethnologischer Anzeiger.
4. Religion, which is a discussion of several phenomena involving that institution among the Ticuna of Peru and Brazil.

The cultural descriptions in this chapter apply to any of the Ticuna who have lived in contact with the mestizo. The data contained herein were gathered at Marihuazu, Brazil, and Cushillocococha and Bellvista, both in Peru.

History

Apparently since the early Spanish Conquest period, the Ticuna have made extensive cultural contacts with missionaries, traders, and others. The Conquest marked the beginning of their cultural journey to civilization. One of the first Europeans to mention these Indians was Cristobal d'Acuna (1641). D'Acuna was a member of one of the first important expeditions into the Amazon Basin, that of Pedro Texeria who traveled from Belem to Quito in 1639. It was d'Acuna who first reported the Omagua as being the enemy of the Ticuna. The Ticuna were also mentioned by such early writers as Padre Samuel Fritz in 1691, Ribeiro de Sampaio in 1776, Johann Baptist Von Spix and Karl Friedrich Von Maritus in 1831, Ayres de Cazal in 1833, and Castelnau in 1851. Early twentieth century explorers and writers who mentioned the Ticuna include Paul Rivet (1912), Felix Speiser (1926), Tastevin Constant (1927), Carl Gutaf Santesson (1931), and the work of Gunder Tessmann, _Die Indianer Nordost-Perus_, published in Germany in 1930. A rather complete bibliography will be found in Herbert Baldus, _Bibliografía Crítica da Etnologia Brazileira_. 
Nimuendaju was the first to document the fact that only in the last few hundred years have the Ticuna established themselves along the banks of the Amazon-Solimoes. During pre-Spanish Conquest times the Ticuna apparently had several strong enemies. Among the most hostile and feared were the aforementioned Omagua. For the most part the Omagua occupied the islands of the Amazon-Solimoes River from the approximate vicinity of Manaus up the river to a point between Pebas and Iquitos. The Putomayo-Ica River was held by several hostile Aruak tribes. The Ticuna who lived in this hostile area lived in isolated hidden groups for protection, usually well away from navigable streams or lakes. During the Conquest period the Ticuna were not a canoe people; rather, they were a semi-nomadic hunting and gathering society that apparently did not use canoes (8, p. 19).

As a result of the Conquest, tribes which were more hostile to and in closer contact with the Europeans were either wiped out or migrated to more remote parts of the jungle. After their enemies had been either subdued or killed, many of the Ticuna moved out of the jungle and settled along the rivers and lakes where they came into contact with mestizo culture. The Ticuna have had an apparently successful history of adapting to their social and physical environments. It has been postulated that it was during this period of migration and cultural transition that they adapted to the life of a canoe people and accepted many structures of the mestizo culture.
All of the Ticuna have not made this move to civilization, however. There were, at the time of the present field study, Ticuna living as isolated primitives in much the same manner as described by Tessman and others who wrote in the early twentieth century and before. One such group lived near the headwaters of the Cotohue River, a tributary of the Putomayo, in Peru. There was very little known about this highly isolated group of Ticuna other than that they did exist in a primitive state and were loath to allow visitors into their part of the jungle. At least one mestizo trader made contact with them in the past year, but he was unable to enter their village. One Ticuna living at Cushillococha, Pastor Valencia, had relatives among this group and twelve years ago made contact with them at a *fiesta de pelacion* in Colombia.

**Habitat**

The area occupied by the Ticuna extends along both banks of the Amazon-Solimões from $66^\circ\ 30'\ W.$ longitude up river to approximately $72^\circ\ 50'\ W.$ longitude and includes the tributaries of this river. The Ticuna were also reported along the south bank of the Putimayo-Ica from the Rio Cotuhé, $72^\circ\ 00'\ W.$ longitude down to the intersection of the Ica with the Solimões. The Ticuna are usually found in small groups, living in clusters of three to five houses. The territory of the Ticuna has expanded since the decimation of their enemy, the Omagua. Before the arrival of the Europeans, the Ticuna
were restricted to the small tributaries along the north bank of the Amazon-Solimões from approximately 71° 15' W. longitude to a point near 68° 40' W. longitude (8, p. 2).

Geography

Geographically, Ticunaland is a part of the Amazonia, and as such its topography is almost exclusively that of lakes and lacustrine zones on or near the banks of the Amazon-Solimões and certain larger tributaries of that river. There are, however, large portions of high solid ground, usually sand and alluvia with lenticular clay deposits, which in some cases extend to the banks of the Amazon. This kind of topography was found at Leticia, Colombia, where the ground level is as high as twenty meters above the maximum flood stage of the Amazon. There are also other solid jungle centers made up of alluvia with interspersed clay beds. These solid centers are found scattered throughout the Amazon Basin and when accessible to the Indians are used for intensive agricultural purposes. There are thousands of lakes throughout the Amazonia. These lakes were formed when the mighty river changed its course over the centuries, cutting off its meanders. Cushillococha is an example of this phenomenon. These meander-lakes are always connected to the larger rivers by small *quebradas* (streams).
Fig. 2--Peruvian Amazon Basin
Climate

The climate is hot and the humidity is 100 per cent throughout much of the year. The only relief from the heat is at night, when it often becomes rather cool; for example, it was 72° at Yarinacocha on June 8, 1970. The year is divided into dry and rainy seasons. The summer is dry and the winter, wet. The rains normally start in December and begin to diminish by April. By June and July there are only occasional showers, even though the sky remains cloudy most of the time. The dry season is considered to be at its height from August through November. Seldom is there prolonged rain during this period. During the dry season rivers and lake levels fall as much as twenty meters (sixty feet) and many of the smaller streams dry up completely. Even though there are no heavy rains during this period, there are occasional rain showers in the afternoons. During the rainy season the rivers of the Amazonia usually flood and cover tens of thousands of square miles of jungle with up to approximately twenty meters of water. As a result of these flood waters jungle trails become navigable canals. When traveling by canoe, the Indians often use them for short cuts between settlements. During the 1970 winter season the flooding in the Amazon Basin was at its highest level in recent history. These floods destroyed most of the cultivated plants that the Indians depend on for subsistence. The floods of that year also destroyed thousands of fruit trees in the area. It is difficult for the Indians
to catch fish during the rain season since the fish, which are no longer restricted to the streams and lakes, disperse into the flooded jungle. That time of the year presents great hardship to the Indians who rely on crops, from small slash and burn fields (chacras), and fish to feed their families. In addition to these problems game is forced deeper into the jungle, to higher ground, making hunting unfruitful. In many respects the Indian is at the mercy of his environment.

A virgin, unexplored jungle covers much of the Amazonia. The only exceptions are the small populated areas near cities and along the river banks. The jungle is virtually impenetrable, and only five to ten kilometers off these waterways has man made little if any appreciable permanent invasion. For the most part the jungle has only been exploited commercially for timber and rubber, and here again, only near navigable streams.

In addition to the cornucopia of plant and animal life in the Amazonia, there is a super-abundance of biting and stinging insects. There are three insects in particular which make life generally miserable for both man and beast:

1. Mosquitos (T., tunu)*, of which there are several varieties.

*Whenever a Ticuna word is used for the first time in this paper, it is preceded by the letter T. Spanish words are only underlined.
2. Gnats (T., a), which will bite, leaving an itchy blood blister on the victim.

3. Sand flies (T., muxcu), which are bothersome, especially in the heat of the day.

In addition to these three insect plagues there are the ever-present ticks (T., chhimu). There is one species of tick found that is almost microscopic. As one passes through the jungle and brushes against certain plants, hundreds of these ticks come off on a sleeve or trouser leg. The ticks appear to be small patches of dust but the patches, unlike dust, spread and finally disappear. Each of these insects that make contact with the skin quickly buries itself. Each that buries in the skin causes a pestering, itchy pimple within twenty-four hours.

General Aspects of Society

This discussion of the society and culture of modern Ticuna includes only those Indians who have been in close cultural contact with national groups. Included are not only aspects of the major cultural institutions but, equally as important, a description of what was referred to in this paper as the subsistence culture of the Ticuna. Indeed, most Amazon Indians live a hand-to-mouth existence barely above subsistence level. Various aspects of this subsistence culture are vital to this research; however, there is no particular portion of this chapter which is designated as
"subsistence culture." Rather, the intention is to present descriptive evidence throughout the latter parts of the chapter.

The daily living pattern of the Ticuna has been considered dull and routine by various observers. Never was any hint given in the literature as to why such statements were made. Perhaps the first preoccupation of these Indians concerns the production of enough food and shelter to keep reasonably sound in body. Therefore, the majority of their time is spent in the production and acquisition of food. The Ticunas are for the most part a very courteous and well-behaved people. However, whenever under the influence of alcohol, they become loud-mouthed and quarrelsome. When intoxicated the Ticuna tend toward violence, murder, suicide, and fighting. The only two drunks noted during the course of the present field study were raving at the tops of their voices. One was beating his wife; the other, attempting to fight anyone who came into swinging distance. The Ticuna are a peaceful, industrious, generally agreeable people who love to laugh, these two incidents notwithstanding. While working the Indians continually joke among themselves. There is apparently little or no theft among members of the same settlement, and rape is virtually unknown.

The speech of the Ticuna is very modulated; seldom are voices raised. Even when scolding children, the Ticuna parent does not ordinarily shout; indeed, the voice is generally
lowered, almost to a whisper at times. The lower the voice, the more authority is meant and the quicker the desired behavior occurs. Normally, the only loud voices heard are among the children at play or perhaps when a child is hurt or unhappy. Then they bellow like children the world over.

Physical Characteristics

Physically, the Ticuna are not large people, and the men are generally only slightly taller than the women. Rodrigues indicated an average height of men being 149 cm. (59 inches) and women 145 cm. (57 inches), which generally agrees with observations made during the course of the present research (9, p. 52). Their skin color ranges from a light brown to very dark. The facial features are well defined and in some cases almost coarse. Usually, the cheekbones and supra-orbital ridges are quite pronounced. Some of the Ticuna have almost a Mongoloid appearance, while others have the thick nose and lip characteristics of the Negro, the latter characteristic observed much more frequently than the former (note Fig. 5).

There has been some mixture in the Ticuna tribe with the Negro of Brazil, as is indicated in the explanation of the wito clan (note p. 101). Facial and body hair is scanty. Some men have hair on the upper lip, which is coveted. One man had darkened the skin so that his thin mustache would appear thicker. Unlike many Indian groups the eyebrows are prized among the Ticuna. The eyebrows of infants are often
rubbed with the child's first feces. This is said to insure a thick growth of hair there. A majority of the Indians have straight black hair, with the exception of a few who have wavy hair. Many Ticuna children have reddish-colored hair. One informant said that this only occurred when the family was poor or the father did not provide for his family (6).

Typical Day

The typical day in a Ticuna family begins at daybreak, 6:00 a.m. or slightly before. In the kitchen one of the females, the mother or an older child, starts a cookfire or perhaps rekindles the fire of the previous evening. As the family begins to stir in earnest, the younger children are up and generally underfoot. If there are no fish in the house, the father or an older son goes out with spear and canoe in search of breakfast. Whether there is ample fish or not, the father generally takes his fish spear along as he accomplishes his morning toilet. The family eats together and afterwards all go about their respective business.

The mother washes dishes after breakfast, if any were used. If there are young girls in the family, they are responsible for cleaning up after the meals. Usually the floor of the house is swept, as well as the yard, before any of the female family members go about other chores. This is done whether the floor is dirt or wooden.

Perhaps both the husband and wife go to the family chacara to tend their crops. Most of the time this is work
for women, however. If the husband does not work in the
garden, then he spends the morning fishing, hunting, cutting
timber (in the case of Cushillococha where the Indians have
a sawmill), canoe building, or in other basic subsistence
activities. The woman, or women, of the family spends the
morning gardening or perhaps off in the bush gathering various
fruits and herbs. If there is a school, the older children
usually attend. In Cushillococha the majority of the boys
age six through fifteen attend school; however, only a small
percentage of the girls attend classes. Smaller children stay
about the house, fish, or go into the jungle close at hand to
gather. The younger children and babies are kept by the older
female children. If the husband is working at home or near-
by, he usually returns to the house for lunch; otherwise, he
carries farina cakes (T., piri) or a portion of fish wrapped
in a banana leaf for his noonday meal. In any case, the
noon meal is usually rather light.

No one normally returns to work until 2:00 or 3:00 p.m.
Everyone Lounges in hammocks or on the floor, napping, or just
resting. The work day is normally finished between 5:00 p.m.
and 6:30 p.m. Night falls between 6:00 p.m. and 6:30 p.m.

The majority of families eat their evening meal after
dark by the light of a kerosene wick or by fire light. The
evening schedule is altered somewhat at Cushillococha, where
there are electric lights from 6:30 p.m. until 9:00 p.m. each
evening. Children are allowed to play for an hour or so after
supper, their parents looking on, sometimes gossiping with neighbors, or just relaxing in the cool of the evening. Although the Ticuna are an outgoing people who enjoy talking and joking with friends and relations, there is little visiting done in the evenings at Cushillococha. Usually everyone is in bed by 8:30 p.m.

Holidays and Sundays are spent going to church, visiting relatives and friends, working on personal projects, fishing, or just loafing. On Sunday afternoons the young men almost always play soccer. There are usually several teams in each Ticuna settlement. The Indians play a very fast and hard game. Most young people and some adults play soccer, including the females who also have teams.

There is seldom any variance in the above described daily life pattern. The days are routine, one day much the same as the next, as might be expected among people who live only slightly above the subsistence level.

The following group of photographs are a pictorial description of several aspects of the material culture of the Ticuna living at Cushillococha at the time of the present research. In addition, they are intended to give the reader better insight as to the physical characteristics of these Indians.
A. Making a tipiti.

B. Three generations.

Fig. 3
A. Preparing farina.

B. Drying farina.

Fig. 4
A. The mayor of Cushillococha.

B. Young Ticuna girls.

Fig. 5
A. Servicing the generator.

B. Preparing timber for the saw mill.

Fig. 6
A. Using a cast net on Lake Cushillococha.

B. Cypress dugout canoes.

Fig. 7
A. Placing a timber on the carriage.

B. Operating the saw mill.

Fig. 8
A. Soccer captains.

B. A Ticuna father and his son.

Fig. 9
A. Salting *paiche*.

B. Cooking *baxu*.

Fig. 10
A. Ticuna woman at Cushillococha sewing with her new sewing machine.

B. Dispensing medicine at the Cushillococha health clinic.

Fig. 11
Kinship Structure

The normal Ticuna family is patrilineal and usually uxoripatrilocal. That is, the family is normally patrilocal after an initial period when newlyweds live with or near the kinsmen of the wife, usually the father or uncle. Some observers have called the Ticuna matrilocal, but close observation indicates this is not strictly true. Among the Ticuna who live in the more accessible settlements, such as Cushillococha, Bellavista, and Marihuazu, it is commonly accepted that a man should have only one living spouse. Divorce is rare. A few of the older men, fifty years of age and older, at both Cushillococha and Marihuazu had consummated plural marriages. Indeed, one man living at Cushillococha had three wives. Polygomy is the exception and seems to be disappearing, at least among the more acculturated Ticuna.

The Ticuna Indian tribe, whether the members are living in Brazil, Peru, or Colombia, is divided into a number of clans or families. There are perhaps as many as thirty-five or forty different clans, which are generally divided into two moieties or regional groups. Within these moieties, which the Ticuna called rattles and birds, strict exogamy is practiced.

The exogamy practiced by the Ticuna, as previously mentioned, is indeed strict. Ticunas regard incest as not only carnal knowledge between members of the same moiety but even an inadvertent glance at the other person's genitals. Whenever
women are washing clothes or bathing, either nude or semi-nude, men who happen by will avert their eyes so as to take no chances of violating this taboo. One informant allowed that it would be better for an illegitimate child born to members of the same clan or moiety to be killed at birth or perhaps be reared as an orphan than to allow the mother and father to be married. Among the more primitive Ticuna groups not only the child would be killed but possibly the mother also. However, this practice has not been reported among the more accessible settlements in recent years.

A member of the rattle group cannot marry a bird, no matter if the latter individual is from a clan that has been separated from its namesake by hundreds of miles and generations. Ticuna folklore relates that if one violates this incest taboo, as to marriage or even to the point of having carnal knowledge (which even includes glancing at the genitals of an opposite sex member of the same moiety) that person will be denied entrance into paradise. The violator will be destined to roam the earth as a creature of darkness (T., naxchixi) exacting vengeance on all he may encounter.

Members of the different clans or families deal with clan members of the same moiety in a brother-sister type relationship. No matter where Ticunas live, whether in Brazil, Colombia, or Peru, they know that they are a distinct and separate people, all speaking the same language and basically sharing the same culture. This is true even for isolated
groups of Ticuna living in very primitive societies deep in the jungle. Such is the case of the Ticuna living somewhere on the Cotohue River, who live much in the same manner as the tribe lived before the coming of the white man.

Of the thirty or forty various clans that exist among the Ticuna, there are thirteen different clans present at Cushillococha. Six of these are rattles (T., baru) and seven are birds (T., aru). A list of the clans at Cushillococha follows (4):

**RATTLE CLAN**

<table>
<thead>
<tr>
<th>Clan name</th>
<th>English</th>
<th>Scientific</th>
</tr>
</thead>
<tbody>
<tr>
<td>aru</td>
<td>paca</td>
<td>Cuniculus paca</td>
</tr>
<tr>
<td>cheweru</td>
<td>aguati</td>
<td>Dasyprocta aguti</td>
</tr>
<tr>
<td>naiyiexie</td>
<td>army ant</td>
<td>Atta sp.</td>
</tr>
<tr>
<td>*e (wito)</td>
<td>genipapo tree</td>
<td>Genipa sp.</td>
</tr>
<tr>
<td>chexe</td>
<td>acapu tree</td>
<td>Vouacapoua sp.</td>
</tr>
<tr>
<td>yaxú</td>
<td>squirrel</td>
<td>Sciurus sp.</td>
</tr>
</tbody>
</table>

*Even though the wito is classified with the rattles, members are not bound by the exogamy laws.*

**BIRD CLAN**

<table>
<thead>
<tr>
<th>Clan name</th>
<th>English</th>
<th>Scientific</th>
</tr>
</thead>
<tbody>
<tr>
<td>taxú</td>
<td>toucan</td>
<td>Rhamphastos sp.</td>
</tr>
<tr>
<td>tuyuyu</td>
<td>tujojo</td>
<td>Tantalus loculator</td>
</tr>
<tr>
<td>baru</td>
<td>japu</td>
<td>Ostinops decumanus, Pall.</td>
</tr>
<tr>
<td>ngoxú</td>
<td>blackbird</td>
<td>Icteridae sp.</td>
</tr>
<tr>
<td>nguxnu</td>
<td>mutum cavallo (turkey)</td>
<td>Mitva mitu</td>
</tr>
<tr>
<td>oxta</td>
<td>chicken</td>
<td>Gallus gallus</td>
</tr>
<tr>
<td>cowa</td>
<td>an unidentified jungle bird</td>
<td></td>
</tr>
</tbody>
</table>

The moieties have no proper name as such but the people are keenly aware in which division a person belongs. Anything
that does not have feathers, whether it is a tree or an animal, belongs to the rattle group. Each Ticuna has three names. Two of the names are Indian names, and the third is the individual's legal name, either a Spanish or Portuguese name. The Indian names include the clan name and a given name. The given name is given to each person at birth by the parents or grandparents. The clan of a particular Indian can be told by the form of his given name. This is true since each given name is usually the name of a characteristic of the totem of his clan, whether animal, tree, or bird. Examples of given names found at Cushillococha are listed below (4):

- **yagacú**—tiger whose growl is heard far off.
- **nguxachicú**—tiger who makes a small noise before attacking.
- **dexecú**—the small tool used to make the hole for stringing rattles.
- **buxucú**—name of the nuts gathered from the rattle tree.
- **buxchitucú**—a tiger who leaves his footprints.
- **naigana**—a rattle with a sweet sound.
- **waxeurana**—turkey with black tail feathers.
- **dexparana**—turkey with yellow legs.
- **choxuna**—ants that come out to dance sometimes.
- **checheputacú**—a squirrel who makes noise when he eats cascabel veo.
- **cuenucú**—a crane who stands on one leg.

The principle function of the moiety system is exogamy. The Indians frequently refer to the moieties, and most of them seem to be well aware of the dual, indeed, triad kinship organization of the tribe. There are three basic divisions in

*Names ending in cū are masculine names.*
the exogamy of the Ticuna rather than the previously reported dual organization.* The third division of the Ticuna kinship structure is made up of members of the wito clan who can marry into either of the other two regional groups. A wito is anyone who has Negro blood in the line of his father. Any other, non-Negro, person who marries into the tribe automatically assumes a clan name in the opposite moiety from that of his spouse. It is very easy to trace the intrusion of a Negro blood line through patrilineage. It is, of course, next to impossible to trace mixing from non-Negro stock.

Life Cycle

Marriage among the Ticunas who were a part of this field study followed no special form. The suitor merely asked the girl's father, or preferably her maternal uncle, if he would be acceptable as a son-in-law. If there were no objection by the girl to the marriage or if the exogamy laws were not violated, the suitor's request was normally granted. Among the Ticuna, both bride payment and infant marriage are unknown.

*In the last work of Niemuendaju (1942) concerning the Ticuna, he stated:

The Tukuna refer to the clan quite frequently, but never to the moiety, yet the latter is of much greater importance. The principal function of the moieties is exogamy, although the Tukuna are not aware of the existence of their dual organization; they know only that members of certain clans may not marry members of others (8, p. 60).

In addition, he classified the wito with moiety A, which classification was not entirely correct.
While family marriage arrangement is rare, it still occasionally takes place. A good marriage choice brings not only prestige to the bride but also economic advantage to the family of the bride. Newly married couples normally take up residence with her family and become another productive unit in the family.

Conception usually occurs within the first three months of marriage. Among more primitive Ticuna Indians in the past, many taboos concerning pregnancy were observed. An obviously pregnant woman was not allowed to touch certain foods or assist in their preparation. They were not allowed to plant or to cultivate certain crops such as yucca, corn, yams, and potatoes. In addition, they were not allowed to touch certain tools such as a clay spade or mattock. Today few, if any, restrictions are followed by pregnant women, except certain dietary ones.

In recent times the observance of parturition ritual has largely been abandoned. When the woman's time to be delivered is near, she calls for her mother or some other older woman "who knows about these things" to assist in the delivery. Trained midwives are almost non-existent in Ticuna communities. The woman is delivered of child usually in her bedroom. When the contractions begin, the woman squats on a new barkcloth mat (T. Ñoxe). An uncle or some other matrilineal male relative embraces her from the rear, applying pressure to the lower chest and upper abdomen. The
girl's mother or some other woman presses on the abdomen of the expectant mother to further help the birth process. Modesty is apparently no issue in childbirth. Whenever it comes time for a child to be born, neighbors, relatives, and friends, along with the husband, usually crowd into the house in anticipation of the birth. Indeed, it is a festive occasion for everyone, except the new mother.

After the child is born, the cord is tied off with a piece of *chambira* (twine) and cut with scissors or a bamboo sliver. The cord is then cauterized with a coal from the kitchen fire. In past times, and even now, among the less acculturated Ticuna, much ritual and taboo accompanied childbirth. A special covered birth platform was built behind the house, hidden from view. It was to this platform that the expectant mother repaired as her time drew near. In cases of difficult delivery the shaman was often called so that evil spirits impeding delivery might be exorted. At the time of the present study, this practice was followed among a few of the more conservative Ticunas. In other cases of difficult delivery, when a shaman was not called, the woman would be beaten about the lower back with an old manioc press (*T.* tipiti). After the child was born, the cord would be cut, using a splinter from a special type of cane; then cauterized, using a glowing bit of charcoal made from the wood of a particular tree chewed in a certain way by ants. The afterbirth (*T.* naapetunaxa), called "mouth" in Ticuna, would
be buried under the birth platform. To insure long life, the cord, after dropping off, was placed in a notch made in a particular tree which was said never to die; when chopped apart, the branches will take root. After birth, many Ticuna babies were covered with juice from the wito fruit, said to insure health and long life; also, to ward off evil spirits. Young girls and women also painted their skin with this juice, which was said to soften the skin.

There are some neo-natal practices carried on today that apparently have their origins well in the past. Infanticide was a common practice in the past, but this is no longer true, at least not so among the Ticuna groups visited during the course of this field study. Children born too close together pose a very serious physical, as well as economic, problem for a family, especially if the child happens to be a female. The unwanted child is sometimes drowned.

Among the more conservative Ticuna groups, new fathers still practice various taboos following the birth of a new child. Some of these practices appear to make feeding a family rather difficult. The father, for a certain period of time, must not leave the immediate vicinity of his house. He might go to the lake or stream to bathe or to draw water, however. He is strictly forbidden to touch firewood, an ax, a weapon of any sort, or his boat paddle. If he happens to break one or more of these taboos, then the child could grow up to be an idiot, paralyzed, or perhaps a hunchback. In
addition, the new father must abstain from all intoxicants because his drinking might cause the youngster to grow up to be a drunkard. For both physical and economic reasons, many couples avoid coitus during the first year of lactation.

The time of childhood among the Ticuna is an idyllic period. It is a time of play and little parental restriction. This is especially true of young boys, who are prized by their fathers and therefore much indulged. The only incidents to mar the childhood are the childhood rites of passage. These rites are little more than the first haircut for boys and ear piercing for girls, both between the ages of two and four years. It has been reported that among more primitive groups of Ticuna the hair of the small children is still plucked. In addition, the boys have both the ear lobes and nasal septum pierced. The girls do not have the septum pierced; they only submit to the hair pulling and ear piercing. These rites of passage from infancy to childhood are celebrated with elaborate festivals which may last for several days. Apparently, however, they are not so elaborate and costly as the female puberty rites following menarche. Female puberty rites are described in detail later in this chapter.

Children seldom play with others outside the family group. Little girls, as they do the world over, play with dolls, either purchased or homemade. Both boys and girls play with small canoes made by their fathers and with barbless fishing spears. A favorite pastime among young children
is that of playing house. They construct a small structure covered with banana leaves wherein they usually build a fire to cook small fishes, grubs, or vegetables.

Child discipline is lax if viewed from Western standards. Seldom if ever, does one hear a parent yell or loudly scold a child. Insults are never used when correcting a youngster. Usually the father, when correcting or scolding his sons, will lower his voice and perhaps grimace or gesture, but never would he yell. Living in one Ticuna house for over three weeks during the course of one phase of the present field study, never once did any member of the field party hear the father raise his voice or strike any of his three sons or three daughters. Indeed, the younger sons were able to get by with much more than the girls. Even so, the voice of the father was always lowered in correction or reproof. The calm manner of disciplining small children in Ticunaland is remarkable. Even when a child obstinately cries or is otherwise habitually naughty, the parents discipline with much restraint or else just ignore the overt behavior. There was some disciplinary training of children among the Ticuna people which appeared unduly harsh, but, again, only if viewed from Western standards. Whenever a child attempted to eat or drink something which could prove harmful or perhaps deadly, the parent would first explain in plain terms that to eat, drink, or touch a certain item was absolutely forbidden. If this proved ineffective and the child a second time attempted
to transgress, then a particular nettle (T., *naxcú*), which imparted a vicious sting, was plucked and placed against the child's naked side. If a child habitually used vile or unseemly language, a parent might rub pepper (T., *aju*) in the child's mouth. This is not unlike the custom of washing out the mouth of a child with soap, popular in Victorian America. Admittedly, this kind of punishment was seldom resorted to; usually, a gesture and lowering of the voice by a parent was enough to cause a quick change in behavior or attitude of the child's.

As early as four years of age the small boys are given a paddle and a fishing lance. They then accompany their father, maternal uncle, or older brother out on the lake or river, in a canoe, in search of fish. Usually, children under four are not allowed on the water alone. After five years of age, however, it is not uncommon for boys in small canoes on sheltered water to fish with lance or hook and line. Some of these youngsters make a substantial contribution to the family table. Ticuna children swim almost from infancy; therefore, they are in little danger of drowning and they spend much of their time in and on the water.

The Indians enjoy pets and usually have several dogs around their homes. Ticuna children delight in pestering the dogs and cruelly mistreat the puppies, pinching them and otherwise making life miserable for the dogs. The parents apparently think this mistreatment of dogs is amusing since
they do little or nothing to curb this practice. Many children have small jungle animals for pets, such as monkeys, armadillos, coati, ocelots, and the like; yet, paradoxically they are usually not mistreated. Parents would quickly scold their children for cruel behavior involving these small jungle animals.

There are at least two periods in life when rather radical behavior changes occur as a result of culture norms. As school age approaches, the behavior of Indian children becomes more sex oriented, and segregation of the sexes is enforced by the parents. The little girls swim and play more and more only with other girls and their older sisters. In some of the more conservative groups there are certain rites observed in the passage from infancy to childhood, and after these rites segregation officially begins. The second point of official and radical change occurs as the young Ticuna reaches puberty. At puberty both boys and girls are considered by the Ticuna to be adults with the obligations and responsibilities of an adult. Ritual-wise among most Ticuna groups, puberty is not the major event in the life of a boy that it is for a girl. Early writers did, however, refer to certain rites a boy had to submit to before becoming a warrior. These rites were apparently not practiced among the Ticuna visited as a result of this research. Among the more acculturated Ticuna families, neither was the girl's puberty rite (T., iyúxú) practiced any longer. There were still many families which practiced the iyuxu in its traditional form, however.
The following is a brief sketch of a typical iyũxũ. This description includes the events and preparation leading to the ceremony as well as certain subsequent events.

As soon as a young pubescent girl experiences menarche, she is isolated from all males and placed in seclusion, usually in a crib constructed in the rafters of her house. This girl, called a woxecu in Ticuna, is kept in seclusion six months and longer, as preparation for the iyũxũ is carried out and the moon reaches the proper position. During this period no man can look upon the woxecu, and she is attended only by her mother or other female relative. In some instances, the girl may come down for her meals only at times when males are not present or expected to arrive. Whenever a male approaches the house where a pubescent girl is being kept, he must whistle or otherwise announce his coming to allow the woxecu time to return to her hiding place. Some Ticuna believe that if a man looks upon such a girl during this period he will not be able to kill game or catch fish. According to folktales, the spirits of the iyũxũ would become angered.

Preparation for the feast is a costly and time-consuming task, both for the festival chief (T., iyũxũara), or owner of the party as the Indians refer to him, and for the invited guests. Even during times of near famine, food is collected and hoarded for the celebration, perhaps an indication of the importance given this rite of passage by the Indians. Weeks and months are spent scouring the jungle for monkeys, coto,
howler, wooly, and spider monkeys, and for other animals and birds, such as aguati, coatimundi, and turkey. In addition to meat, much fish is also obtained. The meat and fish are smoked until leather-hard and then placed in baskets hung from the house rafters and kept awaiting the time of the iyúxú. In addition to the meat and fish that are gathered, much drink is also prepared. The preparation of intoxicating beverages is traditionally the work of women among the Ticuna. Large clay pots are filled with masato (T., chaxú), an alcoholic beverage made from manioc pulp. Other alcoholic beverages are prepared from yams and the fruit of the burity palm. Usually one week before the actual party is to take place, friends gather at the house of the host to place the fermented masa into pots of water, the final step in the preparation of chaxú. There is also some ritual attached to this phase of the preparations. The fermented masa is placed on banana leaves on the floor of the main room of the house; the leaves are laid directly in front of a wooden corral built for the woxecu. The owner of the party examines the masa. All of this is done to the accompaniment of several drums and rattle sticks. If the masa is pronounced fit, it is then placed in the pots, which are then filled with water. The tops are secured with banana leaves. All is now in readiness for the iyúxú. The food and drink have been prepared, the woxecu is in her corral, and costumes have been made.
The actual ceremony and certain related details have been reported in varying forms by other observers, including William Lewis Herndon, who made his first trip through Ticuna-land in the mid-1800's. Nimuendaju also observed this ceremony during one of his trips among the Ticuna between 1939 and 1942. A more recent observer was Lambert Anderson, who described in detail such a rite in an unpublished paper he wrote for the Summer Institute of Linguistics in 1953. Each of these accounts varied in some detail, one from the other. Apparently, from disagreement among the various observers, one would assume that the actual progress of the iyuxu varies from location to location while maintaining its basic form and structure.

Persons invited to the party were expected to prepare elaborate costumes. The preparation of the costumes followed a generations-old custom. Each costume reflected the personal tastes of its owner. Often one could tell by the creature a costume represented to what clan the owner belonged. Several costumes used at one of these iyuxu are described in Appendix B.

The date of the feast of passage is usually a day or two after a full moon, thus allowing plenty of light for dancing and merrymaking. Only guests specifically invited attend the iyuxu. The fiestas last two to three days and nights and are normally spent in dancing and drinking masato liquor. The fiesta is physically exhausting; from beginning to end
there is a continuous cadence of 125 beats per minute maintained. Later in this chapter a description of the music and dancing is presented. On the third day the party reaches its climax, at which time the woxecu has her hair plucked out. Only a few strands at a time are jerked out by her female relatives and other female guests. As mentioned above, the actual ceremony has been described by other observers and will not be discussed here. The most complete description of such a ceremony was by Ninuendaju in his monograph, The Tukuna (8, pp. 73-92).

Ticuna girls usually marry between the ages of thirteen and fifteen. However, no girl who has gone through the hair pulling rite will marry until her hair has grown out again. Early marriage is usually sought by the parents of the girl. Gaining a son-in-law eases the economic load in their home by giving the family another available man to help provide food. Young men as a rule do not marry until at least eighteen years of age. Seldom, if ever, will a village have any mature singles who have never married. Usually, a widow or widower will take another spouse within a year.

Pre-marital and extra-marital sexual relations appeared to be rare among the Ticuna. Rape was virtually unknown among these people. This was due perhaps to the fact that the only barriers to marriage were the incest laws and the willingness of the girl. Before a marriage, the girl’s suitors had to approach her father or her maternal uncle and petition for her
hand. Whether the uncle was first consulted was unimportant. He was usually consulted before final approval for the marriage was given, however. The young man would perhaps brag to his companions about his intended, but outsiders were not brought into the plans once things became serious.

In each Ticuna village visited during this research several polygamous unions were noted. In Cushillococha there were at least four men who have had polygamous unions. Indeed, one of these had had three wives, one of whom was now dead. In two of the cases, sororal polygamy was involved.

Divorce was rare among the Ticuna. It was seldom undertaken except in the case of habitual maltreatment by the husband, or adultery. In recent years, however, there have been a number of cases of abandonment. Abandonment usually occurred among couples living in settlements near the larger river centers such as Leticia, Belen, and Benjamin Constant. Abandonment cases always seemed to involve a mestizo man and an Indian girl. In the case of divorce or abandonment the woman usually returned to the home of her parents. If there were children, it was the decision of the father as to where they would go, whether with him or with the mother. If they went with the mother, then the father could claim them at any time in the future. Adultery was considered grounds for divorce but for the husband only. However, a single act of adultery was not usually warrant enough for such drastic action. Usually, the husband would only give his offending
wife a sound thrashing. The woman was the only responsible part in the case of adultery. The Ticunas say, "If a woman does not want, how can a man take?"

In the case of widows and orphans the Ticuna had no major problem. While levirate was practiced to some extent, it did appear to be the exception among those Indians that were a part of this study. A widow was usually taken care of by her parents if they still lived; otherwise, she would usually live with a married son or daughter. A widower, on the other hand, was not so fortunate. He would remain in his home, which quickly became rundown in appearance. His children would go to live with relatives in most cases. A widower would usually remarry within one year. All of his children did not always return to his house, however. Pastor Valencia, an informant to this research, had raised one of his brother's sons. The child was five at the time of the death of his mother and at age fifteen was still a member of that household. After the father remarried, this son could not get along with the new wife; consequently, he returned to the home of his uncle and was being raised as the son of Valencia.

Death was the final facet to the Ticuna life pattern. For most of the life of an Indian death was his closest companion. From the moment of birth throughout the life span, the Indian is constantly face to face with the precariousness of life. In the jungle, death from disease, starvation, and
sudden destruction from the beasts of the forest and river was ever present, as the following anecdotes illustrate:

In April, 1970, to the west of Cushillococha along the Rio Cacao, a Ticuna left his young wife and infant child at home when he went to fish early in the morning. When the Indian returned in the afternoon, his wife and child were nowhere to be found. The man knew that they had not voluntarily left the house since flood waters were almost at floor level and his was the only canoe. Three days later, a short distance from the house, the man came upon a giant water boa or anaconda. The feet of a person protruded from the mouth of the creature. The snake had crushed and partially ingested the woman but had not been able to get her completely down. The Indian killed the anaconda, which measured over eight meters (approximately twenty-four feet) in length and was as thick as a man's waist. Apparently the beast had attacked the woman as she set at her door washing clothes, perhaps knocking her and the child into the water. The child must have drowned and been carried away by the current since no trace of him was ever found.

In June, 1970, there was a young Mayoruna man at Yarinacocha Base who was recuperating from wounds inflicted when he was attacked and brutally bitten in the head by a jaguar. When the attack occurred, the lad had been walking through the jungle. Only good fortune kept him from being killed on the spot.
Suicide was well known among the Ticuna and was usually associated with intoxication. The most common way suicide was committed among both men and women was to drink fish stupefiant (T., uu) or to chew a portion of the verbascum root. The informants contacted in various settlements recalled several suicides within the past ten to fifteen years; all had committed the act with verbascum. Various other researchers and observers have reported the Ticuna propensity for suicide while in fits of drunken anger or rage. Intoxication, violence, and other dysfunctional characteristics of the Ticuna personality will be discussed at length later in this chapter.

The death ritual in Ticunaland, at least among the more accessible groups, was practiced in much the same way as in Western culture. Indeed, they had apparently adopted many Western funeral practices. After death the decedent was usually placed in a wooden casket (T., naxchiū). Perhaps a religious ceremony was held, depending on the particular persuasion of the family. The non-Christian family would have a shaman present both at the time of death and at the cemetery (T., tauxque). Certain rites were performed by the witch doctor to insure that the ghost (T., naxchixi) of the decedent would not return to the home. Food and personal articles were often left at the grave site. Leaves were usually scattered along the trail as the burial party returned to the village. All of this was to insure that the
naxchixi remained in the grave, or if it wandered it could not find the way back to the village. The death ritual among Christian Ticunas was expressed in much the same way as in any Western family, perhaps with a little less grief demonstrated. There was, of course, grief expression, but prolonged wailing and mourning were unknown. The latter was true of both Christian and non-Christian Ticunas. Apparently the method used today to dispose of the dead had not always been the method used by this group of Indians. According to several informants the Ticuna formerly buried their dead in burial urns (T., inanata). This practice was not followed among the Indians who were in contact with the mestizo culture. Cemeteries were usually located a short way from the village on high ground. Graves (T., naxnau) were marked with plain whitewashed crosses. In some cases just a stake was used. The cemeteries were normally unkept except for one period during the year. Each year, just prior to All Saints Day, the naxnau was cleaned up, the grass was cut, and grave markers replaced, newly whitewashed, or painted. The entire cemetery was generally improved. When November the second arrived, relatives and friends of the dead took food and drink to the grave sites. They remained most of the afternoon eating and drinking. It was almost a festive occasion. In the evening they placed lighted candles on the graves and all returned home. This custom of visiting the graves of departed relatives has been in Ticuna culture for
generations. It was only through the influence of the Roman Church that this observance was set for this particular religious holiday (4).

Dysfunctional Personality Characteristics

There were some highly dysfunctional characteristics of the Ticuna personality operating in almost every settlement that was in cultural contact with the mestizo. Perhaps the most obvious of these characteristics were the side-effects of the drunken fiestas of the Indians. They have an apparent propensity toward violence while under the influence of intoxicants. At best, whenever a Ticuna becomes drunk, he or she immediately assumes a loudmouthed, quarrelsome nature. Fighting is common and murder and suicide are not unknown. All of these are foreign to the Ticuna nature normally.

On three or four occasions during the course of this field investigation of the Ticuna, drinking parties were observed and the participants were observed immediately following such drinking bouts. After a few hours of drinking the Indians would become highly excited. On such occasions one or more of them would begin shouting insults and hurling challenges to all within hearing distance. Usually when one or two men reached this degree of intoxication, the party came to an end. Two individuals were observed in their homes, following such a party and in both cases they had set about to accuse their wives of neglect and infidelity and
then soundly beat them. All this was done while yelling at the top of their lungs. Children who had the misfortune of getting in the way were beaten also. Apparently no one interfered in these outbreaks of acrimony and battery since on both occasions neighbors and relatives merely stood by watching and talking excitedly about the goings on.

Suicide was another dysfunctional phenomenon which on occasion accompanied intoxication. Several other observers have reported the occurrence of drunken suicide among the Ticuna. In every reported case it came while the Indian was in a drunken fit of anger or despondency. The instrument was always verbascum, a fish stupefiant. The last suicide to occur at Cushillocococha was on May 23, 1970, just prior to this research project. A young man, Milico Tuirimo, age nineteen, had been drinking heavily since early morning. In the late afternoon the boy and his mother became involved in a typical loud, insulting quarrel. The mother had yelled at her son for having become so drunk. This had begun the argument in earnest. After the quarrel became more heated, the mother saw a piece of the poison root. She reached for it and at the same time said, "I shall eat this poison!" The son was nearer the root and got it first. He drunkenly said that the mother was only boasting, that she would not really eat the poison but that he would. Whereupon the young man, clutching the uu, rushed out of the house and into the jungle near at hand. When Milico did not return after a short time, the
mother sent relatives to look for him. Those who sought him found the boy just a short distance away in the jungle--dead. This had been the first suicide at Cushillococha since early in 1953, the same year the Institute started its work among the Ticuna. An informant pointed out that before the Lambert Andersons came to Cushillococha there were one or more suicides almost every year. The same informant indicated that the father of the last suicide sold intoxicating beverages illegally and that the whole family was often drunk.

There are various festive and ceremonial occasions in the life of a Ticuna. The major Christian holidays are observed. Christmas, Easter, and All Saint's Day are celebrated in much the same manner as in Western culture. Perhaps the biggest native ceremonial event now practiced in Ticuna society is the female puberty rite or yuxu which has already been described in this chapter. The Ticuna enjoy attending work parties (T., waiyuri). A person who had a particular work project, such as putting on a new roof or framing a house, would invite his friends to help him. He would have prepared a large amount of alcoholic beverage for the workmen to consume. As can be imagined, these get-togethers rapidly became little more than drinking parties. Many Indians needed little excuse to have a party. In almost every settlement there would be at least one fiesta corriente (T., peta) going on each weekend. The peta is a party given just because native brew has been prepared and there is someone available to play
music. If the Ticuna have a tribal vice, it would probably be drunkenness. At most parties men, women, and even children share in the liquor pot.

Religion

In some Ticuna communities a move among the Indians toward Christianity is being felt. Now that the New Testament has been translated into the Ticuna language, this movement will probably become stronger. Cushillococha was the first Ticuna village to feel the impact of a Christian witness and testimony. In 1953, when Lambert Anderson and his family arrived in that village, to begin the linguistic analysis of the hitherto unwritten Ticuna language, the Indians were practicing a form of animistic spiritism. One of the first translation goals after the linguistic team completed the preliminary analytical work was to translate certain portions of the New Testament into Ticuna. By 1958 there were almost 100 adult Ticuna who had made some sort of public declaration of Christian faith, and a local church had been established. This Christian group had no denominational ties and there was no influence from either foreign missionaries or Peruvian ecclesiastic organizations. This body was purely an indigenous evangelical church. As the Ticunas received the New Testament in their own tongue, many of them read for the first time in their lives the teachings of Christ. Many Indians publicly professed to personally accept these teachings as valid. These
Indians then set about to pattern a church after what they felt to be a New Testament Christian church. The resultant body resembled a small fundamental Baptist church in its operation. One of the informants, who also was a leader in this Indian movement for Christ, related that the Ticuna Christians were not affiliated with any denomination because denominations spent too much time arguing and fighting and not enough time telling and showing the good news of Christ. This man had practically the same response to give when asked why missionaries had not been invited to assist the new Christians in their organization. These people felt that Christianity was a practical, as well as a spiritual, way of life. The Christian church at Cushillococha had several elected deacons, one of which acted as moderator each Sunday morning and evening. This person oftentimes also officiated at services on Wednesday evenings. The services were given to much singing and short sermons. There was an offering taken. None of the church officials were paid. The total income of the church was used to help the membership and to purchase books and other supplies.

It appeared from the organization of the Ticuna kinship system, and its relation to the plant and animal world, that some of the Indians maintained a type of pseudo-totemistic religion; pseudo-totemistic since the Ticunas ate all types of jungle animals, while the totem animals cannot be killed and eaten except under extreme circumstances. And, in strict
totemism the totem is treated both in life and death as a fellow tribe member. This was not the case among these Indians. Perhaps in pre-Conquest time the tribe practiced pure totemism. This, of course, is an assumption that cannot be made except after research among more primitive groups of Ticuna has been completed. All of their folklore, as well as their cosmogonic myths, contains reference to animal and plant heroes, which assumed human form or had some particular power over man or nature. Many of the Ticuna folktales are survivals from an earlier cultural period. An example of this is the myth concerning the coming of light, as follows:

Once the world was in great shadow (darkness). The sun was shaded because of a giant lupona tree. A group of woodpeckers (T., tarxta) assumed the form of men and were going to cut the tree down. Then the world would have light. They chopped and chopped finally cutting the tree open. Even though they had cut through the tree it would not fall. There was a giant sloth (T., woxe) that lived in the top of the tree and he would not let it fall. The woxe held on to the heavens with his front paws and his hind paws held the tree erect. This tree was very tall and the trunk was slick and the men could not climb it nor could they fly anymore. Everyone was very sad because there was no light. They all knew that the evil woxe would not get tired. By and by along came some small squirrels (T., yaxu). The men asked them to help. The squirrels got pepper. They climbed up the tree and put the pepper in the eyes of the evil sloth. The woxe turned loose of heaven to rub his eyes and the tree came crashing down and the sun shone on the earth for the first time. That was the true story of how light came to be (4).

Every Ticuna settlement normally has its shaman. Often there are several in one village. There are two types of curandero, as a witch or shaman is called in Spanish. There
is one type called *yuúta* in Ticuna who could both hex and heal. The other, who could only heal, is called *ngixruuxu*. Apparently all Ticunas either feared or had some respect for the power of the spirit world, even those who had embraced Christianity. Few Indians dared speak out against the *yuúta*. It would appear that with the coming of bilingual education and other cultural innovations, the power of the shaman would wane, but this was not true. Indeed, most Ticuna still lived in fear of the *yuúta*. A relatively recent example of the feeling the Indians maintain toward witches was evident from the following account of what happened to a particularly powerful shaman:

Sometime in early 1962, a Ticuna from Cushillococha had gone into the upper Ucayali River country of northeastern Peru. While there he fell gravely ill and was at the point of death when a *curandero* was called in. This *curandero*, a Cocama Indian named Julio Macawachi, cured the sick man. After returning home to Cushillococha, the Ticuna who had been cured broadcasted the fame of this *yuúta* of the Cocama. Later that year some of the relatives of this man who had been cured fell ill and the local *curanderos* could do nothing to effect a cure. The Cocama shaman, Macawachi, was called. After his arrival he attended these particular sick people and in just a few days they were cured.

It was not long, however, until trouble began to brew. Macawachi liked to drink and when he drank he always got
drunk. One afternoon while drunk this yuīta was at the village plaza cursing in a loud voice. A young village leader asked him to please refrain from such talk, that such conduct was not appreciated. Macawachi flew into a rage but suddenly just turned and walked away. That night the young man who had accosted Macawachi found his four-year old son had fallen ill. In less than three days, the lad was dead. After this, the conduct of Macawachi went from bad to worse. As was his habit, when he was drunk, he went about bragging about his occult powers. He put the hex (T., nuxunjüxjü) on people so that they would become ill; then he would charge a fee for their cure. This was what many of the people claimed. There was great turmoil in Cushillococha; so much so, that some of the Ticuna had told the Peruvian authorities at the district capital about Macawachi's activities. Macawachi was ordered by the civil authorities, under pain of arrest, to leave Cushillococha at once. On the eve of his departure Macawachi had gotten drunk and had threatened to hex the entire village because of their attitude toward him. That night, on the pretext of getting fish for his journey, several men invited Macawachi to go fishing on the upper end of the lake. He never returned from that fishing trip.

Even though there was a strong Christian influence in several of the larger Ticuna settlements, such as Cushillococha, Bellavista, San Jeronimo, and others, spiritism and animism were still powerful forces in the culture. When there was
sickness, most families took the medicine available from health authorities and then called in the curandero, who would go through an extended ritual that depended on both the particular illness and the ability of the family to pay. In some cases the shaman would alternately chant a mixture of Spanish, Ticuna, and certain esoteric words intelligible only to the inhabitants of the spirit world. The chanting was usually accompanied by drum, rattles, foot stomping and, sometimes, all three at once. The chant was followed by much exortation in the form of a monologue, a dialogue with the spirits and ghosts. All of this was being done while the curandero sucked the body of the patient in different places. This sucking was supposed to effect the cure by drawing out the poison spirits. At times the din was intolerable. One would be obliged to get well in order to save his hearing.

Material Culture

The material culture of the Ticuna Indians, living on or near the Amazon-Solimoes in contact with the mestizo whether it be in Peru, Brazil or Colombia, was for all intents and purposes identical. In the following description of a portion of this material culture there will be a few items particular to a given location and they will be so noted; i.e., the sawmill at Cushillococha. For the most part, the items herein described will be found throughout Ticunaland.
In the Ticuna settlements along the Amazon-Solimoes there were two basic types of houses, with three variations to each type:

1. Houses with metal roof and palm bark walls, open walls, or board walls.

2. Houses with thatch roof and palm bark walls, open walls, or board walls.

Many of the Ticuna houses combined both aboriginal survival characteristics along with three centuries of mestizo influence. An analysis of the housing of the more primitive Ticuna groups along with accounts of early chroniclers would be necessary before actual survival characteristics could be ascertained with any degree of validity. The majority of Ticuna houses were of pole and thatch construction. These structures were varied in size. The smaller houses were no more than three by five meters and usually accommodated only one family; i.e., father, mother, and one or more small children. Some of the houses were ten by fifteen meters or larger. A house located in Cushillococha was an example of a rather large house in which thirty-one people lived, nine adults and twenty-two minor children. The largest house in Marihuazu was seven by nine meters and housed eight adults and seven children. This particular house was built off the ground approximately one and one-half meters and had a palm bark floor. There were two hearths inside the house. One larger hearth, that was two by two meters, was located just
just to the left of the entrance way. The other, a smaller hearth, was in the back right corner of the house. The hearths were both constructed of split palm logs tied together with vines. The resultant box-like structure was filled with earth. Over the smaller hearth was a four-legged grill made of small hardwood stakes. This grill was used for smoking meat and fish. Hammocks constructed of chambira fiber were hung from several support posts. Many of the people did not use mosquito nets, yet they were apparently free from malaria. Hanging from the rafters were articles of clothing along with other personal items and tools.

Whenever a house was to be constructed, the Indian men first located a certain hardwood used for the main posts. Several varieties of wood which resist termites were used; Palo de sangre, quenilla, and huacapu were the most popular. The main posts (T., caxta) were usually hewn square, using only the heart of the wood. The smaller lateral posts (T., caxtapara) and the rafters (T., iachinaxago) were made from paxiuba, a very hard slender palm (Socratea exorrhiza) or some other slender tree. The four, six, or more main posts, depending on the size of the house, were set in the ground approximately one meter deep. The long beams (T., omuta) were put in place along the lateral poles and then the rafters (T., iachinaxagü) were installed. After this was done, the ridge pole (T., naachatacüxrexu) was put up and small poles were set approximately one meter apart along the ridge pole.
extending down to the long beams. These small poles formed the framework that the thatch roof is applied over. All of the joints were tied with a supple vine or with chambira. Usually there was a loft, at least in the larger houses, which was used for various purposes. In one house a newly married couple occupied the loft. In another, a young girl was being kept in seclusion in anticipation of her fiesta de pelacion. A majority of Ticuna houses were built off the ground as high as three meters. Apparently this was to avoid high water during certain times of the year. Also, many Indians believe it was more healthy living off the ground.

The largest house in Marihuazu was approximately fifteen by twenty meters and was of pole and thatch construction, built on the ground. There was a platform with a rail about it along the longer side of the house. The platform was sixty centimeters off the ground and was two meters wide. At one end of this platform the width increased to approximately four meters. At one edge of the larger end was a hearth being used to smoke meat. The roof had a steep pitch and the eves came to within approximately one meter of the ground. Both ends of the house were open. The family slept on the narrow portion of the platform using sleeping mats made from the bark of the tururi tree (T., Ñoxe). In addition to the several mats there were four hammocks (T., napa) hanging from hooks. These hammocks appeared very short, but on closer inspection proved to stretch almost two meters laterally so
as to accommodate one or two adult persons. There were several large circular baskets (T., pexchi) woven from a reed-like plant called varuma hanging from the rafters. Two of these baskets, approximately 30 cm. in diameter and 50 cm. deep, contained smoked monkey and fish. Several smaller baskets of similar construction contained articles of clothing and other miscellaneous foodstuff. A large amount of chambira fiber was draped over the rafters (note Appendix B). One of the older women demonstrated how chambira was twisted into thread on her naked thigh. Chambira was often used as a trade item.

In the center of the house, placed on the ground, were two large clay pots (T., üxe) which had an approximate capacity of fifty gallons each. These jars contained masato, a highly intoxicating native beer. This masato was being prepared for a fiesta de pelacion. Near these jugs, on the ground, was another hearth on which were placed a three-legged ceramic cooking pot stand and a small wooden grill. Above this hearth, just below the eave of the house, was a small platform which held various kitchen utensils and clay bowls. In addition, there were several gourd dishes and bowls all having their interior surfaces painted with a black lacquer-type material. This lacquer is made from cumate juice, urine, and ashes. There was a large oval container pointed at both ends which appeared to be able to hold at least five gallons of liquid. This container was made from the broad end of a dried
frondstalk taken from the anaja palm. There was a crushing board, which was a large crescent shaped piece of heavy hardwood approximately 70 cm. long and 10 cm. thick, weighing approximately four kilograms (eight pounds). This board was rocked back and forth in a wooden trough made of similar material (note Fig. 2-A). There were several small carved stools near the hearth (note Appendix C).

Several of the houses in both Cushillococha and Marihuazu were constructed of sawn boards. While there was a certain amount of prestige in owning a solid wooden house with a metal roof, these structures were not as practical as the thatched-roof and open-sided houses. The tin roof made the interior of the house very hot during the day. The solid walls did not allow what little breeze there was to dissipate the heat. In addition, the cracks between the boards were a haven for millions of cockroaches (T., orawe).

The house of one of the informants to this study, Pastor Valencia, in Cushillococha, was constructed entirely of boards which had been sawed by hand. The house was six by ten meters and had a small structure attached to the rear which served as a kitchen and eating place. The house and kitchen were connected by a walkway that was approximately one meter off the ground.

The main structure contained two rooms in each end; these rooms were each approximately three meters deep. One of these rooms was used as a storeroom. The smaller room
TABLE I

THE TYPES AND DISTRIBUTION OF HOUSES
IN CUSHILLOCOCHA AND MARIHUAZU AS
A FUNCTION OF POPULATION*

<table>
<thead>
<tr>
<th>Type Walls</th>
<th>Cushillococha</th>
<th>Marihuazu</th>
<th>Type Walls</th>
<th>Cushillococha</th>
<th>Marihuazu</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thatch or open walls</td>
<td>16</td>
<td>31</td>
<td>Thatch or open walls</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>Palm bark walls</td>
<td>19</td>
<td>16</td>
<td>Palm bark walls</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Wooden walls</td>
<td>27</td>
<td>16</td>
<td>Wooden walls</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>Misc. and abandoned houses</td>
<td>0</td>
<td>7</td>
<td>Misc. and abandoned houses</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Totals</td>
<td>62</td>
<td>70</td>
<td>Totals</td>
<td>21</td>
<td>40</td>
</tr>
</tbody>
</table>

*The total population of Cushillococha was 656. The number of livable houses was 83. Therefore, there was an average of 7.9 persons per house at the time of this study. The population at Marihuazu was 970 and there were 102 occupied houses there. The average number of persons per house at Marihuazu was 9.4.
next to it was used as a study and depository by Valencia, who was a teacher in the bilingual school for girls. The two rooms on the other side of the house were sleeping rooms. The center section of the house, an area of four by six meters, was used for entertaining guests. It also served as a place where guests could swing their hammocks when staying overnight. In the center section of the house the walls only extended about half way to the roof which was metal. The rooms at the ends of the house were boarded clear to the roof with only one window in each room and, of course, a door into the center section. The lofts above the end rooms were used by the younger children as their sleeping quarters. The kitchen and eating addition was of pole and thatch construction, but the walls and floor were made of boards. The eating area had walls only half way up, as did the center section of the main house. The cooking area was separated from the dining room by a full wall.

The house contained little furniture. In the living room there were two benches, a small table, and one hammock. The wife kept her treadle-type sewing machine in the large center room (note Fig. 11-A). The storeroom contained a large wardrobe-type trunk, several suitcases, and two large metal drums with waterproof lids. There were no articles of clothing hanging from the rafters of this house, as was the case in the majority of Ticuna homes observed. In one corner of the storeroom there were several kerosene tins.
Above the tins were several shelves out of reach of small children. On the shelves were assorted canned goods, fishing gear, and other miscellaneous odds and ends. In the study, there were a large desk, one chair, and along one wall a bookshelf. The desk faced the window located in the front wall of the house. The sleeping area in the loft above these rooms had a few cardboard boxes stored in one corner and a large sleeping mat on the floor where two young boys slept. During the day the mosquito net remained rolled up. The bedrooms both contained double sleeping mats and mosquito nets. The bedrooms contained no other furniture, except a chamber pot in each. The house was wired for electricity and each room had a light; however, there were no switches. Each evening when the power plant was turned on, all of the lights would burn.

As mentioned before, the house of Valencia, unlike the majority of Ticuna dwellings, had nothing hanging from the rafters except the Peruvian flag. This house accommodated three adults, two adolescent children, and four smaller children. Even though floor space was at a premium, there was no apparent crowding even with two guests in the house.

The kitchen of the house contained a typical hearth, which was a sand box raised approximately 60 cm. above the floor. Aluminum pots were placed directly on the fire. Several green saplings were extended across the hearth to the window sill. Meat and fish were suspended above the
fire on these sticks to roast. A large mud turtle (T., nxobi) was being kept tethered under the hearth. It was being fattened for some special occasion. The kitchen was rather cluttered. Several bunches of green bananas and plantains along with a bunch of fruit from the aguaji palm lay in one corner; the fruit from this palm was used to make a refreshing beverage (T., tema). Several used tin cans, most of which were filled with old grease, lined one wall. In the dining area there was a table with two benches, one on each side of the table, and chairs at each end of the table. A small wood plank cupboard in one corner of the room contained dishes and eating utensils. Drinking water was obtained from a metal gutter along the back edge of the roof. The water was collected in two large metal drums. At one side and to the rear of the house was a utility shed made of poles and thatch where Valencia kept his outboard motor. The shed was also used whenever farina was prepared, since a large blandona was kept in it (note Fig. 4-B).

Surrounding the house for ten to twelve meters in each direction the ground had been cleared of all vegetation and was packed brick hard. Valencia explained this was to keep down the horde of chiggers (T., ai) and other insect pests. In addition, it provided a place for children to play. Other outbuildings included a chicken coop, which was in disuse, and an outdoor privy. In Cushillococha most families had constructed outdoor privies which were usually well away from
their houses. These privies were the result of a health program implemented by the Summer Institute of Linguistics in 1962. There were very few improvements of this nature at Marihuazu or at other Ticuna settlements visited, as a result of the present study. Photographs and descriptions of other items of material culture may be perused in the ethnographic section of the appendices.

Subsistence

The staple food in Ticunaland was farina and fish. Farina was made from either sour or sweet manioc (yuca). The tuber was peeled and then usually soaked in water for several days. From this point there were two different ways to prepare farina. The manioc was cut into pieces and placed in a trough and then crushed with a rocking board, a method normally used when only a small amount was being prepared. The most common method of preparing farina was to grate the manioc either with a hand grater or with mechanical grinders, which some of the Indians had. After grinding, the resultant mass was washed and then placed in a tipiti where the juice was squeezed out (note plate, Appendix B). The thick white starch, called tupaca, was saved and allowed to dry and was used as glue or eaten as a snack. After the tupaca had been squeezed out, the pulp was placed in a large sheet-iron blandona and dried over a fire (note Fig. 4-B). The completed farina looked like and had the consistency of "grape nuts." Farina was served in several different ways;
the most common was in dry form. Usually, a bowl was filled with fariña at each meal, and the Indians dipped into this common bowl, eating it plain or perhaps putting it with soup or other food. A small flat cake (T., piri) was often made from fariña dough and then deep fried.

Fish was served in several ways: roasted, smoked, dried, or boiled in a soup. The most common way was to serve an entire roasted fish on a platter of banana leaves placed in the center of the table. Each person would tear off only as much as he could eat in one gulp. The fish quickly assumed the appearance of a tattered rag doll. Fish that had been smoked leather-hard was cooked with green bananas and vegetables until the resultant mass (T., baxú) was the consistency of thick porridge (note Fig. 10-B).

In addition to the other foods served, there were green bananas or plantains at every meal when they were available. These fruits were either boiled, roasted, or occasionally fried, although the latter was rarely seen. Again, each individual at the table broke off only as much of the fruit as he could comfortably swallow in one gulp.

Meat, although seldom salted and dried, was prepared in much the same way as fish. Both animals and fowl were relatively hard to come by near the more accessible villages and were therefore highly prized. Whenever game such as paca, monkey, or turkey was prepared, it was usually roasted. The whole animal was placed on the table, and individuals would
either tear off a chunk of meat with their hands or teeth. If the Indians had knives, then they would cut off the pieces. Among the more acculturated households, forks and spoons were used. Instant coffee with condensed milk was usually offered to guests. Still it was not impolite to take food with the hands, even when eating utensils were provided.

In Ticunaland the meals were almost always the same. The Indians appeared to take little pleasure in meals except that of subsistence. To Western tastes, the meals were rather bland. Very little conversation took place during a regular meal. An individual could leave the table without comment whenever he became satisfied or the food was exhausted. After each meal the Indians usually washed their hands and face. Each person would wash out his mouth, although this was not ritual. The entire family ate at the same time: men, women, children, relatives, and guests. Everyone ate at a leisurely pace; no one appeared in a hurry to finish at any meal. Among families that had small children, the men usually ate alone so as not to be bothered by the constant movement and noise of the youngsters. The women apparently fared better than the men in Ticuna families since, while the men were away at work, the women were seen continually munching on some tidbit or another.

Three typical meals served to a Ticuna family might include the following:
<table>
<thead>
<tr>
<th>Meal</th>
<th>Typical Food</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breakfast</td>
<td>roast fish (gutted only)</td>
</tr>
<tr>
<td></td>
<td>boiled green bananas</td>
</tr>
<tr>
<td></td>
<td>instant coffee or avena</td>
</tr>
<tr>
<td>Lunch</td>
<td>roasted or boiled fish</td>
</tr>
<tr>
<td></td>
<td>farina</td>
</tr>
<tr>
<td></td>
<td>boiled or roasted green banana</td>
</tr>
<tr>
<td></td>
<td>juice or water</td>
</tr>
<tr>
<td>Supper</td>
<td>boiled fish or meat in its broth</td>
</tr>
<tr>
<td></td>
<td>boiled green banana</td>
</tr>
<tr>
<td></td>
<td>farina</td>
</tr>
<tr>
<td></td>
<td>instant coffee</td>
</tr>
</tbody>
</table>

These meals seldom varied but may have been any combination of these foods. As a substitute for bananas, the Indians also enjoyed boiled or roasted manioc, boiled rice, maize, native potatoes (T., core), and other native vegetables and occasional fruits.

Gathering was carried on by both men and women. Many of the edible fruits and plants had economic value and were sold, while others were considered delicacies by the Ticuna and kept for family use. Among the food items gathered, perhaps the most economically important was the fruit from four similar types of palm. The most important of these was the burity palm (Euterpe Sp.). The fruit, called aguaje, was placed in water or momentarily dipped in boiling water to make the scale-like rinds come off more easily. Around the large seed was a thin layer of yellow meat that was very rich in vitamin C. This meat was macerated and warm water added to it; this mixture was then cooled and sugar added. It made a
refreshing drink. If allowed to ferment, it resulted in a potent intoxicant called *tema*. Only the women gathered the *aguaje* and prepared the *tema*. Another important item that was gathered where available was the Brazil nut (*Bertholletia excelsa*), gathered by both men and women. Each *castaño* pod contains as many as thirty individual nuts. The Indians gathered these for sale to the mestizo traders. The Ticuna enjoyed a large yellow larva (*T.*, *boxo*) that was found in the *buriti* palm. This grub was roasted over open coals until it popped. The cooked worm was then eaten with much relish. Another insect that was often hunted was the queen of the leaf-cutter ants (*T.*, *naiyúxü*). The *naiyúxü* were fried with a small amount of grease and eaten like nuts. One of the greatest delicacies in the jungle was wild honey (*T.*, *berure*) produced by a small jungle bee (*T.*, *beratu*).

In the *Amazonia* there was a vast number of native fruits, many of which did not have English names. Many of the naturally wild fruits were also cultivated by the Ticuna. Small trees were planted near the Indian dwellings. Even though a tree may belong to a particular family, anyone who happens to pass by was allowed to pick enough fruit for himself. It was considered bad manners to take more than just enough for oneself. Among the more important fruits gathered and cultivated were guava (*T.*, *pama*), star apple (*T.*, *taxú*), wild pineapple (*T.*, *chixnu*), plantains (*T.*, *poxi*), pomarosa (*T.*, *mame*), banana (*T.*, *iru*), caimito (*T.*, *tau*), avocado (*T.*, *njuma*),
cocoa (T., bere), grapes (T., chixa), palm heart (T., waira), and many others. In addition, there were a large number of medicinal herbs gathered both by individuals and by the curanderos.

Fishing occupied much of the time of men, women, and children in Ticunaland. However, men were the principle producers of fish in quantity for the family, as well as for sale. Male children were taught to fish by their fathers from early childhood. It was not uncommon to see youngsters six or seven years of age, both boys and girls, out alone on the lakes and streams in small canoes, which they were able to maneuver with considerable expertise.

Fishing was carried on in at least seven different ways among the Ticuna. The Indians greatly enjoyed grabbing fish they call carachama. At certain times of the year these fish are taken from their holes along the lake banks. The eggs of the fish were also relished. A round cast net, common in many parts of the world, was frequently used to catch mullet and bone fish, which abound (note Fig. 7-A). Fishing with this net was called natarapae in the Ticuna language. The cast net was not used where there were pirana (T., uchuma), since these fish would quickly chew holes in the net. Often, the Indians fished with artificial lures. They caught a bass-like fish called tucunari in this way. The tucunari (Cichla, Sp.) was a game fish and a hard fighter when hooked. A few families owned large draw nets but these were seldom used because of
the many snags encountered in the lakes and streams. Only
during extreme low water periods were draw nets effective.
They were used principally for commercial fishing. The gill
net is apparently unknown among the Ticuna. Of course the
conventional hook and line (T., puxwa) were used at all
seasons. Some of the Indians had "trot lines" which they
used for night fishing. In addition to mechanical means, the
Ticuna also used a poison called verbascum (T., uu) which was
obtained from two plants. These plants were called baikpe
and naxmi in the Ticuna language. The leaves of the baikpe
were mashed and spread on the water. Within just a few minutes
small and medium size fish began floating to the surface.
More potent was the juice from the root of the naxmi plant.
This substance apparently acted upon the respiratory system
of the fish, since they came to the surface gasping with their
gill covers wide open. If the fish were immediately placed
in fresh water, they would revive. To fish with poison was
called nachagie among the Ticuna. There was reported among
these Indians some use of fish traps, but this method of
fishing was unpopular among the Ticuna in Peru and Colombia.

The most unique way of fishing among the Ticuna was
their use of the lance (T., chuxchi). The lances were made
from two-meter lengths of slender cane (T., dexne). To the
large end of the cane a three- or four-pronged gig-like head
was attached. The Indians propelled their canoes with one hand
and threw their chuxchi with the other. The fisherman grasped
the chuxchi at the butt end and threw it in an arcing curve. Sometimes the spear was thrown as far as twenty meters ahead of the boat. Usually the Indians did not aim at a particular fish, rather at the ripples caused by surfacing schools of small fish. Interestingly enough, large numbers of fish were taken this way. Larger fish were harpooned at night using spot lights. The harpoon (T., arapau) was made of a hard black palm wood which was tied to a large float by stout twine. When a fish was spotted, it was impaled on the barbs of the arapau. The float and cord tired the fish rapidly. Fish weighing as much as ten to fifteen kilograms were taken in this fashion. Young Indians were often seen perched in overhanging trees in the early morning and late afternoons with their chuxchi hoping to spear feeding fish.

The more economically important species of fish caught by the Ticuna at Cushillococha included the following:

<table>
<thead>
<tr>
<th>Spanish</th>
<th>Scientific</th>
<th>Ticuna</th>
</tr>
</thead>
<tbody>
<tr>
<td>unknown</td>
<td>Arapaima gigas</td>
<td>paiche</td>
</tr>
<tr>
<td>unknown</td>
<td>Colossoma bidens</td>
<td>tomocachi</td>
</tr>
<tr>
<td>boca chica</td>
<td>Prochilodus Sp.</td>
<td>chirimaca</td>
</tr>
<tr>
<td>piraña</td>
<td>Serrasalmo Sp.</td>
<td>ucuma</td>
</tr>
<tr>
<td>dormelón</td>
<td>Macrodon Sp.</td>
<td>de</td>
</tr>
<tr>
<td>sabalo</td>
<td>Characinus</td>
<td>nuxuci</td>
</tr>
<tr>
<td>waracu</td>
<td>Leporinus Sp.</td>
<td>uta</td>
</tr>
</tbody>
</table>

Of all of these, perhaps the most important commercially was the paiche (note Fig. 10-A). These fish often attain a length of two meters and weigh in excess of sixty kilograms. Another fish highly prized but not usually caught at Cushillococha was the Amazon catfish. It had been reported that one fish
of this species had been caught weighing more than two hundred kilograms. There were manatee present but they were rarely seen and almost never caught. The rivers and lakes abound with two species of dolphin or porpoise: the smaller red dolphin (*Delphinus Sp.*) and the larger-bottle nosed porpoise (genus *Pursiops*). The Indians took neither of these animals for food. One type of soft-shell water turtle, called *T.; tori* (*E. dumeriliana*), was caught whenever possible. The mud turtle (*Testudo tabulata*), called *ngobú* in Ticuna, was caught and fattened in the kitchen before being cooked.

Caimans were killed for their hides but the flesh was seldom eaten. Sometimes the tail of the very young caiman was roasted and eaten but even this was rare. Frogs (*T.; cururu*) and stingrays were also caught and eaten.

The Ticuna, in the past, had been famous for the quality of their blowguns (*T.; ixe*) and their curare. However, neither were used by the Indians living in the more accessible settlements visited during the course of this research. Indeed, there were only two blowguns to be found and neither of them had been used in years. Most men hunted with a shotgun. The bow (*T.; wura*) was only used by a few of the Indians and then only for fishing.

There were a number of jungle animals and birds taken by Ticuna hunters; the more important included the following:
Insect life in the Amazon was rich and varied. Three insects in particular caused man more misery than all of the other species combined. Of course, there was the ever-present mosquito (T., *tunú*) of which there were several species present in most Ticuna settlements. Another pest was called *sancudo* in Spanish, *a* in Ticuna. This was a very small gnat that bit, leaving a small blood blister. If ruptured by scratching, this blister would usually fester, making a sore. The sand fly (T., *muxóu*) was a third bothersome insect. The sand flies came in the thousands at certain times of the year and made life almost unbearable for both man and beast. The ticks (T., *ochimu*) and body lice (T., *naxchira*) were always present, but they seemed not to bother the Indians too much. Surprisingly, there was not an abundance of house flies in the Amazon area where this research was conducted. Most of the people living in settlements that have had the benefit of health programs were relatively free of parasites such as hookworms and other intestinal worms. There were, however, many roaches (T., *orawe*), spiders (T., *pawú*).
scorpions (T., *tuxchinawe*), and other crawling insects. Several different species of ants, from the giant *izula* (T., *toxü*), normal-sized leaf-cutter (T., *naiyúxü*), to the very small black and red ones, were into practically everything that was not tightly sealed.

Agriculture and fishing were the principal work of the Ticuna in their subsistence economy. The culture was agriculturally oriented. Each family had their own garden patch or *chacra*. A *chacra* was an area of the virgin jungle that had been slashed and burned over for use as a garden. This practice seems to be used the world over wherever man, on his own resources, lives in or near the jungle. The *chacra* was cleared of trees by the men. The entire family would assist in piling brush and burning the area, which oftentimes was as large as two hectares. The cultivation and harvest was primarily the work of women and children. The ground was not plowed. Usually a planting stake was used to make holes in the ground either for seeds or plant slips.

Crops such as rice and yucca were planted exclusively from slips, as was tobacco. Corn, beans, and peppers were all planted from seed. The Ticunas of Peru planted much sugar cane and some native potatoes, both of which were planted from root stock. Most families had several banana and plantain (*Musa paradisica*) plants which bore fruit the year around. In addition to the above, the Indians also planted avocados, limes, and papayas near their houses.
With the exception of a few dogs and chickens, there were few domestic animals near Ticuna settlements. Ducks were rare and only on one occasion were pigs seen roaming free. One could often find the young of many of the jungle animals being kept in Ticuna homes. When these animals began to mature, they were sold to the traders or were eaten. The only two Ticuna settlements in Peru where cattle were raised were Cushillococha and Bellavista. Even so there were only eleven head in both communities collectively. There were apparently no cattle at Marihuazu.

Aesthetics

The native art of the Ticuna was restricted primarily to ceremonial costumes and regalia, wood carving, and necklaces. Of these objects, perhaps the more striking are the costumes and ceremonial regalia (note Appendix C for a description of several ethnographic samples). Methods of construction of costumes and styles varied from village to village but all followed patterns that were generations old. Basically, there were two types of costumes, as follows:

1. The monkey costumes (T., taxü) usually had small masks carved of balsa wood attached to a bark cloth wig. The trousers to these costumes were made of bark cloth also. Designs on the trousers were brightly painted with vegetable dyes.

2. Devil costumes (T., oxma) usually employed a rather large grotesque mask made of bark cloth (ñoxe) and pitch.
The ñoxe covered a wicker-like framework. The trousers of these costumes were also made of ñoxe and decorated with vividly painted figures.

The costumes were made for both adults and children. The adult costumes were usually obscene. The favorite motif would include over-sized male genitalia. This blatant characteristic was especially common on the oxma costume. These costumes were apparently survivals in Ticuna culture, as evidenced by a portion of the creation myth, as follows:

The good brother would hide his wife away every time he left home because he knew his younger brother would take his wife if he could. One day while the husband was away, the younger brother came to his house to try to find his brother's young wife. The older brother had hidden his wife away by turning her into a moth and putting her in the folds of some ñoxe. The younger brother looked and looked for her. He even tried to tell funny jokes to make her laugh, thereby giving away her hiding place. Nothing worked. Finally, in a rage, the younger brother began dancing and jumping all around the house. As he jumped and danced about in his rage, his genitals danced about also. The young woman seeing this could not contain a giggle. Immediately, the brother found her in the folds of the ñoxe (5).

In addition to the various costumes the Indians also constructed large pieces of ñoxe that were fastened to hoops made of supple tree limbs. These hoops were called T., mawú and were as large as three meters in diameter, although most were only about one meter. The mawú were highly decorated, painted with vegetable dyes in various traditional designs. In addition to the more traditional motif there were often seen airplanes and steamboats painted on these ceremonial
hoops. The variation in design and coloring was restricted only by the availability of the various vegetable pigments and the imagination of the artist. Note Appendix C for details concerning the mawuí and a description of the pigments used on them. Other ceremonial objects made by the Ticuna included cedar drums (T., tutu), dance stakes (T., cuxechinuí), and rattles (T., aru).

The Indians took much pride in their necklaces, which were made from small figures carved in the images of birds and animals, animal teeth and bones, and colored seeds. Their necklaces were perhaps the most beautiful found in the Amazonia. They were certainly the most unusual of those examined as a result of the present research that had come from several other tribal groups. The aforementioned figures were carved from the very hard seeds of certain palm trees (Astrocaryum sp. and Maximiliana regia). The large seeds of the Astrocaryum were black; the regia were a translucent brown. A rather poor grade of necklace was made for the tourist trade in Leticia and for export to specialty shops in the United States of America.

Pottery was made by most Ticuna women. Men also could be potters, but normally this was a woman's work. Clay of sufficient quality for pottery making was found throughout the Amazonia. The potter's wheel was not used in making Ticuna ceramic ware. Coils of clay were rolled out and laid upon each other to obtain the rough shape of a pot (T., baru).
The coils were then mashed together and smoothed both inside and out with the fingers. Very large pots were also made in this way. They were propped up at the widest part so that they would not collapse of their own weight. After a pot had dried, it was placed in a stack of kindling, upside down, for firing. Only about half of the pottery survived this open style firing. Most Ticuna pottery had no painted glaze or incised design but was covered with a glaze which turned ocher (reddish-yellow) after firing. The insides of the pots were generally painted with a black plastic resin which was obtained from the tree Moronobea sp. This pitch-like material would not only assure moisture protection to the contents but also added structural strength to the pot. Very seldom did one see folk-made clay bowls or plates. Most of the more acculturated Indians used trade ware.

Painting as an art form appeared to be restricted only to the costumes and other ceremonial regalia used by the Ticuna. However, these Indians did enjoy carving in hardwood. There were usually one or two excellent wood carvers in each Indian settlement. The most popular wood used for carving was palo de sangre (blood wood), a very hard, deep red, smooth-grained wood. Palo de sangre was readily obtainable throughout the Amazonia. The subjects for carving varied from artist to artist. The most popular carvings were of the caiman, turtle, certain birds, insects, fish, and bats. In one house at Marihuazu, a man had carved a highly stylized
airplane with six engines, bird-like wings, and the body of a caiman. Many carvings were of fantasy creatures. An Indian would find a strangely shaped piece of wood and would subsequently carve some imagined figure from it.

Ticuna music was not developed to a high degree, and their singing was generally lost in the clamor of drums and rattles. The music itself was march-like. The musicians maintained a cadence of approximately 125 beats per minute, no matter what kind of song was played. Some songs had as few as three notes repeated in different variations. The only native instruments observed in the course of the present research were the drum (T., tutu) and rattles (T., aru). The drum was played "tom-tom" fashion: one heavy beat, then three softer beats. No matter what the beat form was, the same cadence was maintained. Rattles fastened near the base of a stake (approximately two meters long) were used in accompaniment with the drums. The rattle sticks were struck on the floor in what appeared to be no established rhythm. At one party these instruments were accompanied by an accordion which kept repeating the same one or perhaps two chords in each song played. Again the participants were singing, but the words were difficult to hear. The Ticuna did construct a type of megaphone made of balsa wood which they occasionally used for singing. The megaphone (T., tuxchi) was not used whenever women were present, however. The Ticuna also constructed a special horn (T., buxbú) which was used only at
the hair-pulling puberty ceremonies. The büxbü was made from rolling wide strips of bark into a large cone, sometimes three meters in length. This cone was tied to a sapling for rigidity. The büxbü was kept in water when not in use to keep it from drying out and cracking. The sound from this instrument was deep and sonorous. Different notes were played by changing the position of the lips. The Ticuna also constructed pan-pipes and flutes of bamboo. The shaman was usually quite versed in playing these instruments. They were often used in the various religious rites and ceremonies, especially for ceremonies that were connected with curing.

Summary

The Ticuna people found in Peru, Colombia, and Brazil all lived within the same subsistence culture. They shared the same material culture. With few exceptions the settlements and homesteads were physically similar, regardless of the country in which they were located. With few exceptions, the Ticuna Indians lived in de facto servitude to greedy patrons. They existed only slightly above the subsistence level, as evidenced by the obvious malnutrition exhibited by many of their children. Spiritually, again with few exceptions, the Ticuna lived in constant fear of spirits, both real to them and imagined by witch doctors. For the most part these people lived a survival existence in unhealthy, lacustrine and jungle zones which were inundated during a large part of the year.
They practiced drunken puberty rites where a young girl's hair was pulled out by the roots. It was not clear from the literature, nor was it made clear through the present research, just which facets of Ticuna culture were survivals and which traits had been appropriated from the mestizo culture with which they had been in constant contact since sometime during the seventeenth century. There were groups of very primitive and isolated Ticuna known to exist somewhere near the headwaters of the Cotuhe River in Peru. The fact that there were such groups of Ticuna assumed to be living much the same as they lived before the coming of the Europeans offers the possibility of a comparative study not often duplicated.

The chapter has presented descriptive material that was indicative of contemporary Ticuna culture among the more accessible and acculturated groups of these Indians living in Peru, Colombia, and Brazil. Great changes had occurred in at least three cultural institutions at Cushillococha (education, economy, political), which are treated in Chapter V.

Listed below are a series of statements which seem to best sum up the descriptive material contained in this chapter:

1. Cultivated plants utilized by the Ticuna included yucca, banana, plantain, corn, pineapple, rice, beans, squash, tobacco, yam, potato, and other native plants.

2. Domesticated animals found in Ticuna settlements included cattle, pigs, chickens, ducks, cats, dogs. Eggs are eaten; other meat animals were usually for sale to the mestizos and others.
3. Agriculture was co-dominant with fishing. That is, it shared the position of a major subsistence activity with fishing. Each family had its own garden plot.

4. Animal husbandry was important although not a major subsistence activity. Women took care of chicken and ducks; men took care of the pigs and cattle.

5. Fishing was co-dominant with agriculture. Men were the major contributors of fish, but women and children also engaged in this endeavor.

6. Hunting and gathering were important, although these were not major subsistence activities. Men were the hunters and anyone could gather.

7. Labor division in the subsistence culture of the Ticuna was approximately equal. Everyone worked; in all of the settlements visited as a result of this research, no loafers were encountered. The Ticuna had an unwritten policy that unless one was ill or crippled, if he did not work, he did not eat.

8. Ticuna villages were fixed sedentary-type settlements whose precise morphological pattern had not been ascertained. There were, however, three general types of settlement:
   a. dispersed homesteads,
   b. compact villages, and
c. nuclear villages with outlying homesteads.

9. The basic family unit among the Ticuna, when viewed from the standpoint of authority, could be considered independent.
That is, the family group did not ordinarily, other than only temporarily, include more than one nuclear family.

10. Exogamy was practiced through a modified moiety system. The modification was one clan (T., \textit{wito}) whose members were free to marry into either of the moieties.

11. While their society was patrilineal, the representative households were matrilocal or uxorilocal; i.e., a couple normally resided with the parents of the wife after marriage. They would remain for an indefinite period.

12. Polygamy was known among the Ticuna, but the practice was being abandoned in this generation among the more accessible groups, such as those found at Cushillococha, Marihuazu, and Bellavista.

13. The determination of social position among the Ticuna was through the ability to provide first for one's family, then for the tribe.
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CHAPTER V

SELECTED ASPECTS OF CULTURAL CHANGE AT
CUSHILLOCOCHA AND SUMMARY AND
CONCLUSIONS OF THE STUDY

Introduction

Chapter V is divided into two sections. The first section is concerned with an examination of the results of certain programs instituted among the Ticuna of Cushillococha by the Peruvian government in collaboration with the Summer Institute of Linguistics, Peruvian Branch. The second section of this chapter includes a summary of the present research, which is followed by conclusions reached commensurate with the questions posed in Chapter I. In addition, this last section contains recommendations for further research in bilingual education and Indian acculturation in the Amazonia.

The first section of the chapter describes the economic, social, and educational climate of Cushillococha in 1953. This section also describes the work of Lambert and Doris Anderson, the Summer Institute of Linguistics, the Peruvian government, and the Ticuna Indians in Cushillococha. Emphasis is placed on how these entities worked toward Indian cultural and community development through the catalysts of bilingual education.
Conditions at Cushillococha in 1953

In April, 1953, when Doris and Lambert Anderson arrived at Cushillococha, there were approximately twenty homes scattered along the lake in no particular pattern. The Ticuna were living in unorganized groups of homesteads. They were existing only slightly above the subsistence level. The Indian economy was that of many pre-literate tribal groups the world over, hunting and gathering. Co-dominant with hunting and gathering was an incipient slash-and-burn form of agriculture. The Ticuna were virtual slaves both to the production of their own food and to the mestizo patrones (5).

The "patron system" had operated in the Amazonia for hundreds of years. An individual mestizo patron would claim large sections of jungle as his own. This claim would also include the Indians who lived there. This type of peonage had almost disappeared but in more recent times another system took its place. Oftentimes land owners and merchants would pay the Indians in kind for their services or products. Cloth, beads, food, and other things the Indians needed or wanted were given to them instead of cash for their labors. Usually the goods given to the Indian were of poor quality, and value was inflated out of reason. The illiterate Indian, who neither understood how to count nor knew the value of manufactured goods, would accept whatever the patron offered. The Indian in his naive belief that all people were trustworthy was consequently cheated. A more vicious form of
peonage was the "patron credit system." Patrones were usually eager to give the Indians trade goods or to give them alcohol, both on credit. This insured the patron that the Indian would be kept indebted to him. Often the Indians were not able to pay off these debts and an inescapable cycle of bondage was established. If the Indian tried to run away and was caught by the authorities, they would usually return him to his illegal bondage. The Indian was cheated and virtually enslaved to a greedy patron who became rich off the labor of the Indian (6, 9).

The Ticuna Indians living in the more accessible reaches of the Amazonia had been victims of the patron system for hundreds of years. Such was the case in Cushillococha in 1953 when the Anderson family first came to stay among the Ticuna living there. There was no overt display of hostility toward the linguists on the part of the mestizo traders and patrones living in Caballococha, the district capitol. It was obvious, however, that there was a great deal of resentment and opposition toward the Andersons from these persons. This opposition took the usual form. The mestizos would ask Lambert Anderson why had he come to disturb the Indians' way of life. One merchant in Caballococha quickly informed Anderson that the Indians at Cushillococha had been doing quite well and that he was not needed. He also asserted that the Indians did not need more education because they already had a public school there, and what more could they possibly want (5).
In 1953, the Ticuna living on the banks of Lake Cushillococha were living if not in actual servitude then certainly in de facto servitude to several masters. Because of their own ignorance, they were living in economic servitude to the mestizo merchants. They were a pre-literate people who exhibited all of the dysfunctional characteristics of acculturation, such as morbidity, apathy, drunkenness, violence, and mortality. The Ticuna were in 1953 a classical case study in Indian acculturation. The town itself consisted of possibly twenty homes that were scattered along the shores of the lake and the tributary connecting it with the Amazon-Rio Cacao. The population was approximately 200 persons. An accurate census had never been taken. The people at Cushillococha were living as they had lived for centuries, almost in complete subjection to their environment. There were no health or sanitary programs and no political or social organizations. More than 95 per cent of the people were completely illiterate in Spanish. The Ticuna language had never been reduced to writing. There was a monolingual school, but the teacher could not speak Ticuna. The Indian parents saw little reason to send their children to school. The Indians were dominated by the shaman. There had been no record of infant mortality kept, but it was believed that approximately one in three children died before they reached four years of age. The Ticuna of Cushillococha regularly practiced drunken puberty rites where pubescent girls had all
of their hair jerked out by the roots. Drunken suicide was common, as were drunken beatings. Technologically, the Ticuna living in Cushillococha in 1953 were only a short way beyond the stone age. Socially, they were just short of being classified as savages (5).

Community Development

Little measurable change occurred in the economic and social development at Cushillococha until 1957, when the Indians received title to 1557 hectares* of land surrounding the lake. On October 7, 1957, this land was given to the Ticunas, as a tribe, by the Ministry of Agriculture (15). It would be difficult for those unfamiliar with the Indians of the Amazon Basin to understand the importance of such action. Heretofore, the Ticuna had owned no land. They were merely squatters. A strong patron could have taken over an Indian's garden or grazing land almost at whim.

Early in 1957, E. Morote-Best, Director del Plan Piloto de Educación Selvática y de las Escuelas Bilinguales Rurales de la Selva, visited Cushillococha on an inspection tour of bilingual schools in the Peruvian jungle. He quickly saw the need that the Indians had for title to their own land. It was through his efforts, under a new federal law concerning the disposition of the eastern forest lands, that they were given title to the land around Lake Cushillococha. The title

*One hectare is equal to 2.2 acres.
was given to them on the basis of five hectares of land for every tribal member living in Cushillococha who was five years of age or older (5). There had been little incentive for the Indians to build a permanent settlement even after the arrival of Anderson, but their attitude was to change as a result of the tribal lands having been deeded to them in 1957. Up until 1958, there was no Ticuna village or settlement along the north shore of Lake Cushillococha. However, by early 1958, there had been established a community on the high ground on the north shore near the Anderson's home.

In August, 1958, the first political assembly was held in Cushillococha and the people elected an AgenteMunicipal (town mayor), and an assistant agente. Two councilmen and a person to keep the village accounts were appointed at the same time. The first mayor of Cushillococha was Jose Caetano, a man who could speak both Spanish and Ticuna (6).

One of the first decrees of the new village government was that of setting each Monday as a community work day. The traditional minga or communal work party became law in Cushillococha. The first projects undertaken included clearing a plaza and cutting village streets. This cooperative work system was still functioning at Cushillococha in 1970. Major projects that had been accomplished included the installation of an electric power plant and electrical distribution system, the building of three school houses, a meeting hall, and a saw mill complex, plus the construction of various other civic
improvements. By 1960, the Ticuna had expended more than 2,000 man-days of labor on public works projects (12). Several of these projects are discussed in detail later in this chapter.

The actual plan of the village was prepared by Anderson. Basically, the village contained two long streets radiating from the central plaza and running parallel to the lake front. The individual house lots were approximately 500 square meters*. Cross streets intersected the main streets every fourth lot, or approximately each 100 meters. The Indians have attempted with some success to abide by the original plan that was made in 1957, even though the village had grown several hundred fold by 1970. Home sites were assigned new families moving into town by the agente municipal. Cushillococha was the only Ticuna town in the Amazonia that had been built following any sort of municipal plan (5).

Economic Development

The economic revolution that occurred at Cushillococha has been a communal phenomenon. There was very little private ownership except for single-family garden plots and some cattle. The larger agricultural and industrial projects were community owned and operated. The community projects discussed herein include the rubber plantation, the saw mill,

*One meter is equal to 39.37 inches.
the power plant, and other smaller group efforts and various commercial ventures.

One of the first projects begun in 1958, as a result of Monday work day, was clearing the jungle on the high ground just south of the village. On this cleared land, in addition to food crops, the Indians planted 500 hybrid rubber trees which were obtained from the Ministry of Agriculture (5). By 1960, the Banco Agropecuario del Peru, taking note of the civic pride and seriousness of the Ticuna, offered to send technicians and tools to further assist them in developing their communal farm projects. In February, 1961, the Indians began planting rubber tree seeds in specially prepared beds. They planned to raise 15,000 rubber trees to be transplanted in land that was to be prepared (3). The next year, 5,000 more rubber trees were planted. These trees had come from seed grown by the Indians. However, disaster soon struck. Shortly after the trees had been planted, a plague of leaf cutter ants came. The ants in just a few days had defoliated each small tree, and the entire 5,000 trees died. The Indians petitioned the government for the proper insecticides and sprayers to combat these ants (5). To this date (August, 1970) they have not received them, and no new trees have been planted.

Another project in Cushillococha that began in late 1963 was a cattle breeding program. Herb Fuqua of the Summer Institute of Linguistics was instrumental in starting a cattle program administered by the Institute. The school at Yarinacocha
had offered an agriculture and husbandry course since 1956. It was difficult for the Indians to obtain cattle and other livestock of good quality, however (20). The cattle program at Cushillocococha was not designed to be a community project. Two individual Ticunas bought five heifer calves from a mestizo who lived in Caballococha. In 1966, one man was able to purchase a high quality Santa Gertrudis-Zebu bull from the Yarinacocha Base herd (5). By 1970, there were over fifteen head of cattle in Cushillocococha, and several other Indians had cleared land and were building fences, preparing to purchase their own cattle. The Indians had planted a fast-spreading plant called kudzu. Kudzu is a type of lespedeza grass which is a leguminous nitrogen-fixing forage and soil conditioner. Kudzu performs a dual service; it is not only a fast-growing, high protein food source for jungle cattle, but in addition it helps recondition poor soils.

In addition to the rubber and cattle projects the Indians contacted representatives of the Ministry of Agriculture to discuss a cooperative rice growing venture. If agreement is reached, the government would furnish the Indians seed, implements, and insecticides necessary to produce their first crop. The Ministry would also furnish technical assistance and guarantee a market for all of the subsequent rice production. The Ticunas would have to furnish suitable land and labor to produce the crops. After the first year the government would continue to furnish technical and market assistance.
They would also give material assistance in the event of some emergency (9).

Cushillococha was unique in several respects, but perhaps the most visible feature was its electric generating plant and distribution system. It was the only Indian village in the western Amazonia with a functioning electric power system. Early in 1960 the town mayor, Jose Caetano, asked Lambert Anderson for help in attempting to get a power plant for the village. Caetano reasoned that the installation of a light plant would aid the children and others in preparing their lessons. In addition, it would effectively lengthen the day so that more could be accomplished. The district capitol, Caballococha, had gotten electric lights the year before. The Ticuna felt that they, too, should have electricity. They felt that this was mandatory if their community were to maintain the level of development that had been generated since they received title to their land in 1957 (6).

Anderson brought the Ticuna's request for an electrical generator before both Manuel Morla Concha, the Prefect of Loreto, and Willy Benzaquen Major, a high official in the Ministry of Public Education. In April, 1961, Morla officially petitioned the National Foundation for Economic Development (Fondo Nacional de Desarrollo Economico) for the installation of a diesel-electric generating set and materials for an electrical distribution system (13). It was not until almost a year later that the donation was actually made and the machinery
was delivered to Cushillococha. According to a letter from Najor, who was responsible for the administration of the project, to the Secretary of the Fondo Nacional de Desarrollo Economico, dated March 31, 1962, the Indians had completed construction of the power plant building and had set the poles for the power distribution system (14). The emphasis of Najor's letter was that the Indians were ready for delivery of both the power plant and the distribution materials. He requested the sum of 40,000 soles for the purchase of these materials. They were purchased in Iquitos and shipped by river to Cushillococha (12).

The project was finally completed late in 1962. Cushillococha became the only Indian village in the Peruvian Amazon with electricity (1). Almost 90 per cent of the Indian homes had electrical service installed in them. Each subscriber paid fifteen soles per month per light fixture in his house. Street lights were spaced approximately fifty meters apart along each street in the village. Around the plaza the lights were much closer together. Persons who did not elect to have electric service brought to their homes paid ten soles per month as their portion of the cost of operating the public lighting. In 1970, Leonardo Witancort Gomez, the mayor of Cushillococha, reported that there were very few patrons who habitually were behind in their payment of the monthly lighting assessments (9).
The most ambitious project that had been undertaken by the Ticuna at Cushillocococha was the building of a sawmill. Without the benefit of a saw the Indians were able to obtain only one or perhaps two boards from each tree that they cut down. A log was usually split with wedges and two planks hewn from the two halves. This process would take a man two to three days to cut two planks. An easier method the Indians used for cutting lumber was the two-man hand saw. Using the two-man saw they could usually cut two or possibly three boards per day. The Indians soon realized that if they were going to improve their economy and accelerate village construction they would have to have a quicker method of obtaining lumber.

In 1963, the leaders approached Anderson with their idea of obtaining a saw mill. Anderson solicited some money and an engine for the mill while on leave to the United States in 1964. He also approached the United States AID office in Lima for help and they agreed to assist in the project. One of the principals in this project was an organization from Oklahoma City, World Neighbors, Incorporated, a group of business men interested in assisting underdeveloped communities the world over. Anderson also contacted this group while on leave in 1964. World Neighbors made a loan to the Ticuna of Cushillocococha which was sufficient to complete the purchase of equipment and help pay the necessary transportation costs of the mill to Peru (5).
Most of the equipment arrived in Cushillococha by late 1968. The Peruvian navy brought the heavy crates of machinery downriver from Iquitos and the Institute's Catalina flying boat delivered the saw mill engine from Pucallpa. The Indians constructed a building prior to the arrival of the mill equipment. All was in readiness for the actual assembly of the new saw mill when Anderson returned to Cushillococha, after spending several months in Lima (5).

For several weeks after the arrival of the mill engine in November, 1968, every day was a community work day at Cushillococha. Large hardwood timbers had to be hewn and set in the ground for the carriage track. The foundations for the engine and the saw were also made from timbers and anchored in the ground. After the mill installation was completed, the Indians were impatient for the first test to be made. They did not have a log ready, so one was promptly cut from the nearest tree, which happened to be only a few feet from the mill building. On January 15, 1969, a second-class commercial license for their saw mill was issued to the Indian community of Cushillococha (17). Subsequently, the Indians have learned how to operate the mill with considerable expertise. The saw mill is of medium capacity. It will saw 3,000 to 5,000 board feet of lumber per day (9).

In addition to larger community development and industry projects there have been several smaller projects of interest undertaken at Cushillococha. These projects include a bakery
operated by Americo Gomez and a cooperative store operated by Alberto Cuello. There was also the development of a community plantation where yucca and other food plants were grown. Although all of these smaller projects were not completely successful financially, the experience the Indians gained in dealing with cash, inventories, deadlines, and quotas was valuable to them.

Community Health

The health program that had been established at Cushillococha was perhaps one of the most outstanding achievements of the Indians. Anderson indicated that prior to 1953, the Ticunas had exhibited a high degree of morbidity. They were living in the most unhealthy locations on the lake and had no sanitary facilities. The tribe had been hard hit in the past by epidemics of smallpox, yellow fever, and chicken pox. Most of the children were infected with hook worms. The majority of the Indians were troubled by several kinds of internal parasites. Treatment for various kinds of illnesses was entirely in the hands of the witch doctors. The usual alternative to the care of the shaman was no care at all. The Ticuna had some traditional herb remedies but they were of questionable value. One of the first projects that Anderson started was to get the Indians to move their homes from the swamps and lowlands to higher, drier ground. In addition, the Indians were encouraged to build outdoor privies and use them regularly (5, 7).
In 1959, the district health department in Iquitos sent a public health team to Cushillococha specifically to inoculate all of the people for both smallpox and yellow fever. There were 291 people inoculated for the first time as a result of this trip by the health team. In addition to inoculating and treating the Indians, the team also brought medicines and instructed the people how to use them. By early 1960, a combination store and municipal clinic had been built adjacent to the plaza.

It was in 1960 that Doctor Eichenberger, head of the Summer Institute of Linguistics Clinic at Yarinacocha, spent ten days in Cushillococha studying the particular health problems there. During his stay, Eichenberger tested 368 Indians for tuberculosis, and among those tested 119 showed positive reactions. Everyone in the village was vaccinated for tuberculosis. The Indians who had shown a positive reaction were started on regular oral medication. Also, the doctor inaugurated a campaign against whooping cough. In addition to ministering to the Indians' immediate health needs, Eichenberger held health seminars in general sanitation and made tests for intestinal parasites. Over 150 cases of intestinal worms and hook worms were treated. Eichenberger's stay in Cushillococha resulted in an awakening of the Indians concerning their health and general sanitation (12).

According to an agreement with Luis A. Lopez Galarreta, director of the Adult Education Section of the Ministry of
Education in Lima, one Ticuna was to be sent to the Public Health Hospital at Iquitos to study in the Curriculum de Sanitario (sanitarian course). A sanitarian functions in much the same way as a medical corpsman or a male nurse. In a letter to Galarreta in 1960, Anderson recommended that Lucas Candido be sent to Iquitos for this course. Federico Bresani, Chief of Public Health for Loreto Province, and Jorge Atkins, the ex-Director General of the Ministry of Public Health, had agreed to allow one Ticuna graduate of the village bilingual school go to Iquitos for one year of study free of cost (12). Interestingly enough, Osario Candido, the father of the candidate, was a shaman; yet, he urged his son to become a sanitario (11).

For several years the Indians had planned to build a clinic and six-bed infirmary. Their plans were to build the installation in two phases. First to have been built was an out-patient examination and treatment center. Later, a medical laboratory and offices for the staff along with the in-patient ward and the other hospital facilities were to have been constructed (5). The brick foundation columns built in 1963 were the only portion of the clinic that had been completed by July, 1970. Since the saw mill had been completed in 1969, the Indians expected to complete the clinic project without more delay.
Social and Political

Traditionally, the Ticuna Indians had not developed political organizations. In addition, they had not ever had a tribal chief among any group. Particular families, owing to their possession of outstanding ability, intelligence, or perhaps magical powers, enjoyed some ascendancy over their fellows. However, never had any person or group had the right to coerce or punish those who failed to follow their admonitions (18, pp. 64-65). There had been cases of chiefs being appointed by the civil authorities or by influential patronos who used certain Indians in positions of authority. In the past, the best Ticuna warrior was appointed war chief and would lead his fellows in battle. This was the closest that the Ticuna had come to having any Indian in a position of power.

The development of a political structure at Cushillococha was unique among the Ticuna at the time of this research. The Ticuna living around Lake Cushillococha came together for the first town meeting in August, 1957. This was two months before the decree granting them title to their land was promulgated. Lambert Anderson engineered this first meeting and arranged for the Director of the Bilingual Education Division of the Ministry of Public Education, Efrain Morote Best, to be present. At this town meeting, Morote explained the advantages of a political organization, how such an organization could effectively coordinate economic, health, education, and
other developmental programs. He maintained that only through
duly elected officials could the Indians have any representa-
tion or voice in their national government or with various
agencies that could aid them in community development. It
was this same official who pointed out to the Indians the ad-
vantages of community work days (19).

At the first town meeting the Indians elected Jose Caetano
\textit{agente municipal} (mayor) of Cushillococha. The first election
was a simple show of hands. Later elections became more
sophisticated. The Indians included a primary election, fol-
lowed by an election between the two candidates chosen at the
primary. All of this was to be done by secret ballot. The
elected chief in turn would choose his \textit{councilmen} from the
various village districts. In addition to an \textit{agente municipal},
the Indians also elected a vice-mayor and municipal treasurer
(6).

At a seminar held at Yarinacocha Base on June 3, 1970,
Leonardo Witancort, the elected chief of the Ticuna at
Cushillococha, described the responsibilities and powers of
mayor or chief in that place. According to Witancort, the
chief presided at monthly council meetings where work projects
were discussed, along with other village business. At these
meetings, which were open to the public, any villager who
had a complaint or recommendation was heard. One of the
major items of business was the discussion of the weekly
tally sheet which showed who was absent from work days. There
was no penalty for missing work day, but if a person missed several days he was asked to explain his reasons in front of the council meeting. There were regular town meetings where other special community projects were discussed and voted upon. Discipline was by persuasion and not by threat.

Witancourt said,

We are a Christian community. Our community is run by the rule of love and trust. If a person misbehaves, the censure of his neighbors is enough punishment. We have no particular laws other than the laws of the land (19).

The Indians told an amusing story about one work project that was a complete failure. Apparently, several years ago, the mayor and others decided that since Cushillocococha was such an up-and-coming community they needed a jail. There had never been an occasion to put someone in jail but the Indians just thought that the village needed a jail for prestige reasons. One Monday work day, a group of men assembled at the chosen spot and began digging the holes for the foundation timbers of the jail house. The men had been working only a short while when an elderly lady, who lived adjacent to the location, came over to inquire who her new neighbors were going to be. When she discovered the purpose of the house being built, she immediately picked up a stout limb lying nearby and chased the workmen away. At the time of the present study, there was no jail in Cushillocococha (2, 8).

It was not until March, 1961, that the office of agente municipal for the Caserio de Cushillocococha (village of
Cushillococha) was officially established by the provincial government in Iquitos. In a letter to Caetano, the mayor of Cushillococha, Julio A. Perez, Alcalde of Maynas Provence, officially recognized this position in Cushillococha. It not only officially recognized Caetano as mayor but also placed him in charge of the civil registry of Cushillococha. The civil registry was a record of all residents, births, deaths, and other vital statistics (16).

Education

As aforementioned, the first school at Cushillococha was established in 1951 by the Peruvian Guardia Civil. This school was chartered by the Ministry of Education as Escuela Publica Numero 1718 (1, p. 9). The teacher, Benigno Tuesta Cacique, was fluent only in Spanish. He did not have a large amount of success in trying to teach Ticuna children but remained on the job until 1957 (8).

In 1957, after having devised a Ticuna alphabet and written several Ticuna primers, the Andersons started a bilingual school at Cushillococha. The Ministry of Education, in accord with the Indians' wish, established Esquela Bilingue de la Selva Numero 1766 by Ministry decree. Pastor Valencia, who had completed the Curso de Capitacion at Yarinacocha, was appointed head instructor at the new school. Valencia had been the Anderson's first Ticuna informant. Originally, the school had approximately fifty students, only one-third of
whom were girls. This school was located in a large thatch roof building that had been originally built as the meeting hall (8).

The bilingual school at Cushillococha was set up by Robert Wacker, an educational expert whose job in Peru, for the Summer Institute of Linguistics, was to organize bilingual schools and see to it that qualified candidates were admitted to the bilingual teacher-training courses offered at Yarinacocha (2). A very serious error was made in the original organization of the new school at Cushillococha, however. Out of approximately sixty-five girls between six and fourteen years of age, only seven were still in school after two months. In the enthusiasm of organizing a bilingual school and putting it into operation, an important cultural trait of the Ticuna had been overlooked. As mentioned previously, there was little or no mixing of boys and girls outside the immediate family. Therefore, the Indian parents would not send their girls to a mixed school. This situation was reconciled by building another building and establishing a separate school for girls (8).

By July, 1970, there were approximately 175 students enrolled in the two bilingual schools at Cushillococha. It was apparent from the student distribution, 121 boys and fifty-six girls enrolled in school, that the culture deemed a primary education more important for young Ticuna boys than for girls. It was impossible during the course of this
investigation to ascertain the number of girls living in the village who habitually did not attend school. Several knowledgeable informants indicated that less than one-half of those girls eligible to attend school actually matriculated (10).

Leonardo Witancort, who in addition to his duties as Agente Municipal was a teacher in the bilingual school for girls, indicated that in the near future (sometime in 1970) there were plans to launch a community drive in an attempt to get more young Ticuna girls in school. National law dictated that school attendance was mandatory for all children six to fourteen years of age. There was little, if any, enforcement of this law noted in the more remote jungle locations, however. The focus of a drive for improved enrollment of girls in school was to come as a series of public meetings where the people were to be told of the advantages of girls being literate in both Ticuna and Spanish. Also to be announced was the fact that the school for girls was going to offer several practical homemaking courses that heretofore had not been offered (9).

In addition to the bilingual schools for both boys and girls, there was an adult education course being taught at Cushillococha. In 1970 there was an enrollment of forty-six adult students in the course, and classes met two or three nights each week during the regular school semester. The primary goal of the adult course was first to teach basic
literacy in Ticuna and then to teach literacy in the national idiom. Concurrently with adult literacy, the areas of community development, sanitation, home economics, and other practical subjects were taught as well (10).

Normally, the school day lasted from approximately 7:00 a.m. until 5:00 p.m. with two and one-half hours recess for lunch, from 12:00 noon until 2:30 p.m. When the children arrived at school, they would line up outside the building for morning inspection and flag raising ceremonies. Classes began at 7:30 a.m. and ran until 12:00 noon, when students would have their lunch break. In the afternoon, classes usually started at 2:30 p.m. This schedule was maintained five days per week. The school year was figured on a nine-month basis with vacation in January, February, and March.

Almost every minute of the school day was highly structured (note Table II). Children had little idle time, and there was no time during the school day when they were unsupervised. Ticuna youngsters were taught primarily by rote memory. Often the pupils practiced their work during class, in concert, and to the uninitiated this seemed highly distracting. Several hours per day were spent copying materials that the teacher read. The classroom atmosphere was much the same as one would expect in a classical Latin grammar school.

There was only one instructional program offered at all bilingual schools throughout Peru. This program was developed primarily by experts in the Ministry of Education. There were
### TABLE II

**SCHEDULE OF THIRD-GRADE CLASSES AT THE BILINGUAL SCHOOL IN CUSHILLOCOCHA**

<table>
<thead>
<tr>
<th>Time</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:30 AM</td>
<td>lecture</td>
<td>math</td>
<td>writing</td>
<td>lecture</td>
<td>language</td>
</tr>
<tr>
<td>8:22 AM</td>
<td>natural</td>
<td>language</td>
<td>math</td>
<td>natural</td>
<td>history</td>
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<tr>
<td></td>
<td>science</td>
<td></td>
<td></td>
<td>science</td>
<td></td>
</tr>
<tr>
<td>9:15 AM</td>
<td>math</td>
<td>religion</td>
<td>history</td>
<td>religion</td>
<td>natural</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>science</td>
<td></td>
</tr>
<tr>
<td>10:22 AM</td>
<td>grammar</td>
<td>study</td>
<td>history</td>
<td>language</td>
<td>health</td>
</tr>
<tr>
<td></td>
<td></td>
<td>period</td>
<td></td>
<td>education</td>
<td></td>
</tr>
<tr>
<td>11:00 AM</td>
<td>writing</td>
<td>oral</td>
<td>lecture</td>
<td>math</td>
<td>lecture</td>
</tr>
<tr>
<td></td>
<td></td>
<td>drill</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12:00 AM</td>
<td>LUNCH</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2:30 PM</td>
<td>history</td>
<td>work</td>
<td>singing</td>
<td>study</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>period</td>
<td></td>
<td>period</td>
<td></td>
</tr>
<tr>
<td>2:52 PM</td>
<td>natural</td>
<td>health</td>
<td>recitation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>science</td>
<td>education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3:05 PM</td>
<td>review</td>
<td>recitation</td>
<td>work</td>
<td>study</td>
<td>play</td>
</tr>
<tr>
<td></td>
<td>and</td>
<td></td>
<td>book review</td>
<td>period</td>
<td>period</td>
</tr>
<tr>
<td>4:00 PM</td>
<td>recitation</td>
<td>work</td>
<td>work</td>
<td></td>
<td>poetry</td>
</tr>
<tr>
<td></td>
<td></td>
<td>book study</td>
<td>book study</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5:00 PM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SCHOOL DISMISSED</td>
</tr>
</tbody>
</table>
three years of transition work followed by five years of primary school offered at each bilingual school. The three years of transition courses were primarily designed to teach basic literacy in the Indian language. During the first year and part of the second, the Indian language was used almost exclusively. The latter half of the second year and the third year, Spanish was used more than Ticuna. The actual course work taken during the transition period in addition to language study included mathematics, natural science, writing, history, and religion. Grades one through five included all of the subjects taught in the conventional monolingual schools throughout Peru. The major noticeable difference between monolingual and bilingual schools was the use of both the Indian and Spanish languages in the bilingual classroom. The bilingual schools also taught certain practical subjects that would not originally have been a part of the curriculum of an urban monolingual school. Subjects such as village sanitation, animal husbandry, jungle home economics, and Indian folklore were some examples of the more practical courses taught in the bilingual school (5, 8, 9).

Discipline and cleanliness were two areas that received much attention at the schools in Cushillococha. At both the schools the students were taught how to march and execute close-order drill. Every youngster wore a uniform. In the mornings, before school, the pupils lined up in military fashion and were inspected. Their hair, teeth, clothing, and
general appearance were checked. If a youngster were found delinquent at morning inspection, he was usually sent home to effect the necessary repairs to his person (8).

Because of a shortage of qualified teachers the schools at Cushillococha operated under a modified Lancasterian-type system. There were only three certified teachers in the girls school, with an enrollment of approximately eighty students. Utilizing the teaching methods that they did, it was difficult for three teachers to accommodate such a large number of students. To remedy the situation, the Ministry of Education allowed the school to hire two assistant-teachers. These assistant-teachers were girls who had completed the sixth grade successfully. They were allowed to teach only the transition classes, however. At the time of this present field investigation there were six teachers and two assistants working with approximately 175 students in Cushillococha. The lower grades were less crowded than the fifth and sixth grades. The transition grades were the most crowded; there were over ninety children in the transition sections.

The Ticuna at Cushillococha were proud of their bilingual school system and wanted to introduce others of their tribe to the same benefits of this type of education. Many Indians from up and down the Amazon had come to Cushillococha to see what was occurring in both education and community development. One group, who came from Bellavista on the Rio Callaru, was particularly interested in the schools and asked if some
and asked if some of the teachers from Cushillococha would help them organize a school. For almost two years, 1963 and 1964, Leonardo Witancort and Pastor Valencia took turns visiting Bellavista, helping the Ticunas living there not only to organize a bilingual school but also to implement the community development ideas that had been used successfully at Cushillococha (9). By 1965, when Lambert Anderson visited Bellavista, there was a thriving community of approximately twenty homes, a bilingual school, and a central plaza, all well planned and constructed. The inhabitants of Bellavista had adopted many of the health and community development programs used successfully by Cushillococha. The remarkable aspect of all of this progress at Bellavista was that no outsider had a hand in any of the planning or execution of what has occurred there (5).

There were three problem areas facing education among the Ticuna at Cushillococha in 1970. Perhaps the greatest problem facing the bilingual schools at Cushillococha was how to obtain new, modern equipment and books. Since there was no tax money available, improvements were through self-help. Several of the graduates of the Indian schools wanted to continue their education, but this was difficult since there was not a secondary school or trade school at Cushillococha. Students who wanted more education had to move to Iquitos or Caballococha in order to avail themselves of secondary education. From a monetary standpoint, it was
difficult and in many cases impossible for worthy students to continue their education. A third problem, as briefly mentioned above, was that of educating some parents, especially many of the girls' parents, to the value of a primary bilingual education for their daughters.

Summary of Significant Findings

There was ample literature available concerning Indian acculturation. A base line for comparing what had taken place at Cusillocococha, over the decade and a half prior to this study, with other Ticuna Indian groups from both an historical and a descriptive position was easily established. A characteristic of acculturation that was apparent in the majority of the studies examined was the fact that Indian acculturation seemed to have always been accompanied by various dysfunctional phenomena. These phenomena included morbidity, apathy, drunkenness, and other abnormal behavior patterns. While the literature was abundant in describing the tribal people in most areas of the world, there was a dearth of multidimensional information concerning the jungle Indians of South America. Three facts emerged from the available literature dealing with the Indians of the Amazon: (1) there was comparatively little material available with respect to acculturation and community development; (2) the materials that existed were principally descriptive in nature; and (3) there were no studies describing educational problems in the jungle regions of South America.
While the emphasis of this study was on the cultural changes that had occurred in Cushillocoocha since 1953, consideration was also given to the survival traits in Ticuna culture. It was realized, however, that before Ticuna survival traits could be defined with any degree of accuracy, there must have been some detailed descriptive study made of an isolated primitive group of this tribe. This had not been done by July, 1970. In recent times, Curt Nimuendaju had been the only researcher to write a report, of any magnitude, concerning these people. While his report was comprehensive, there were several errors in fact encountered in it.

The Amazonia was an area of natural scenic grandeur and of great potential. Indian acculturation there had, in the main, followed the classic examples of exploitation, disease, and death, exhibited the world over. That is, whenever a dominant and literate culture came in contact with a minority pre-literate society, the minority group was exploited or destroyed, often both. The Indians living in the jungles of Peru were no exception. Ways of successfully integrating tribal people into mainstream Peruvian life had been searched for ever since that nation's independence and before, all to no avail.

In 1946, the Summer Institute of Linguistics came to Peru and began their work of the linguistic analysis of unwritten tribal languages and Bible translation. By 1970, the Institute, in collaboration with various agencies of the
Peruvian government, was working among over thirty different tribes in hundred of jungle locations. The programs of the Institute, in addition to linguistic analysis and translation, included teacher education for Indian bilingual teachers, medical and health services, community development assistance, agricultural training and technical assistance, jungle air transportation, radio communication networks, and anthropological research. While the Institute's primary mission was telling pre-literate Indians the story of Christ through Bible translation, they also ministered to the temporal needs of the Indian. Lambert and Doris Anderson, missionary-linguists affiliated with the Summer Institute of Linguistics, first contacted the Ticuna in 1953. The Andersons moved to Cushillococha in April of that year. They are still located there, actively engaged in education and community development. They completed their linguistic work on the language early in 1970.

Evidences of social, political, economic, spiritual, educational, and community development and change were evident among the Ticuna living in Peru. These evidences were more numerous among the Indians living at Cushillococha than among those living elsewhere in Peru, Colombia, and Brazil. There was little doubt that the amount of spiritual and intellectual development that had occurred in individual Indians and in Indian communities was proportionate to the amount of material progress they had made. The individual Indians and Indian
families living at Cushillococha who exhibited the greatest amount of acculturation, those who appeared to be more like Peruvians than Indians, were the ones who retained their Ticuna heritage; that is, their language, certain cultural traits, and their pride in being Ticuna. The Ticuna of Cushillococha had proven their pride in being Ticuna. The Ticuna of Cushillococha had proven their intelligence and skill and were competing in the modern industrial-commercial work of Peru. The Ticuna were competing as citizens in a complex society, not as poor Indian servants to their mestizo masters.

The acculturation that was occurring among the Ticuna at Cushillococha had come about as the direct result of the organized efforts of Lambert and Doris Anderson, the Summer Institute of Linguistics, the Peruvian government, and of equal importance the Ticuna people themselves. The advances noted at Bellavista had come mainly from the influence of the Ticuna at Cushillococha, with no other outside influence or assistance.

If one considered the amount and kind of acculturation that had occurred among the Ticuna Indians living in Peru, those having the benefit of a bilingual school, there was ample proof of the present need to extend comparable programs to Indian groups under similar conditions. What had happened at Cushillococha presented strong evidence of the Indians' ability, intelligence, and their desire to adopt the national culture, yet retain those eufunctional aspects of the
indigenous culture. There was little doubt that the Ticuna Indians of Cushillocococha were functioning effectively within the larger society. All of the aforementioned points to the vital importance of preserving the language and cultural heritage of the Indian while he is becoming integrated into national life. The findings present a strong case for bilingual education, as opposed to monolingual education, among other language minority groups.

Conclusions

The social changes that have occurred in the past fifteen years at Cushillocococha were influenced by both intrinsic and extrinsic factors to Ticuna culture. The intrinsic agents effecting these changes were basically the following three:

1. The Indians having been exposed to civilization for the past 300 years and partially adopting certain mestizo cultural traits and structures.

2. The apparent enjoyment that the Ticuna Indians exhibited in working together on certain projects, such as house construction, land clearing, and canoe building, the traditional minga being a case in point.

3. The propensity of the Ticunas to live in close proximity one to another rather than dispersed in the jungle or scattered along the river and lake banks.

Certainly there are other cultural traits and structures inherent in Ticuna society that are agents of change that do
not become apparent as a result of this research. Indeed, there are subtle psychological characteristics of the Ticuna that are partially responsible for the relatively rapid integration of these Indians. The examination of these characteristics was beyond the scope of this research.

It was much easier to arrive at extrinsic agents of change in operation at Cushillocococha than the intrinsic ones. This was true since Cushillocococha was rather isolated in the jungle. There were five influences that stood out as being more important than others. These were as follows:

1. The influence of the Summer Institute of Linguistics in Peru; their programs of Bible translation and community development.

2. The bilingual educational system, including the training of bilingual teachers and tribal leaders at Yarinacocha Base.

3. The aid of various departments of the Peruvian government in the economic development of the Ticuna.

4. The aid given the Ticuna at Cushillocococha by several foreign entities, such as United States AID and World Friends.

5. The particular influence Lambert Anderson and his family had on the Indians of Cushillocococha.

It was difficult to divide many of the extrinsic influences since they tended to overlap. Perhaps the following discussion will amplify the above-mentioned list.
The Peruvian government, in collaboration with the Summer Institute of Linguistics, has had signal success in dealing with problems of Indian education, cultural development, and integration in the Amazonia. By 1970, from the results obtained in over thirty previously pre-literate Indian groups in the jungles of Peru, there could be little doubt as to the validity of the idea that bilingual education is superior to monolingual education for these people.

There is no question but that bilingual education has had an observable effect on the degree of integration of Peruvian jungle Indians into the dominant culture. In both Brazil and Colombia the respective governments have spent large amounts of money on monolingual schools for the Ticuna with little or no observable improvement in the Indians' health or standard of living. This was especially true of Marihuazu, Brazil, where the Ticuna still lived in the miserable environment they have existed in for many years. The Brazilian authorities had built a modern school building and staffed it with trained teachers, but the Ticunas living in that village were living exactly as they were described by Nimuendaju as having lived in 1942. An agency of the Brazilian government provided an electrical power plant and built an electrical distribution system for the Ticuna of Marihuazu, but in less than two weeks the engine of the plant was ruined because oil had not been replaced.
Education has had no apparent effect on village morphology in Marihuazu. This village existed in much the same pattern when this research was done as it had twenty years previously. It would be redundant to presume to restate the obvious effects of bilingual education on community life at Cushillococha. The same would be true of any restatement of the ways bilingual education has accelerated the acculturation of not only the Ticunas of Cushillococha but also other Indian groups living in Loreto Province. Suffice it to say that the Ticunas living at Cushillococha appear to have been acculturated to a greater degree than other Indian groups living in the Amazon Drainage Basin who have not had the benefit of bilingual education.

It would be an error to assume that the methods and curriculum utilized by the Peruvian government in the Bilingual Teacher-Training School operated at Yarinacocha have application in other areas. This training program has enjoyed much success among the jungle Indians of Peru, however. The basic idea of the Bilingual Teacher-Training Program is undoubtedly applicable in other areas, but without further research one cannot arbitrarily make a categorical statement concerning this.

The system and methods utilized by the Summer Institute of Linguistics in collaboration with the Peruvian government in introducing remote pre-literate tribal groups to modern civilization and then assisting them to become functional
in this civilization have not been duplicated with such a
degree of success anywhere else in the Americas. In the case
of the social and environmental improvement recorded at
Cushillococha, it has admittedly not only occurred because of
the outstanding educational programs operating there but also
owing to the particular talents and dedication of Doris and
Lambert Anderson. Perhaps the most vital reasons for the suc-
cesses at Cushillococha are the Christian character and life
exhibited by all of the tribal leaders and approximately 100
of the citizens. When Leonardo Witancort was asked what made
the fundamental difference in his community and other Indian
communities, he answered, "Why, Christ makes the difference
here!"

Recommendations for Further Research

There were several problems encountered in the process
of this research that could not be answered except through
further study. It would be interesting and certainly valu-
able to see the results of an empirical study of comparative
teaching methods in both the bilingual and monolingual schools
of South America. This could be done quite effectively by
making a comparative study of the bilingual school at
Cushillococha and the monolingual school at Marihuazu, or
one of the monolingual Ticuna schools in Colombia. It appears
that this would be the kind of study some large interna-
tional organization could carry out with ease. The results of
such investigation would do much to resolve the question of the comparative value of bilingual education as developed by the Summer Institute of Linguistics and the Ministry of Education in Peru and monolingual education being carried on elsewhere.

Another area of investigation and study that should be undertaken in the future would be an analysis and evaluation of the jungle bilingual school system operating in Peru. A part of this study would necessarily be a comparative evaluation of the degree of educational success exhibited in the various tribes. From a study of this nature one could perhaps discover the social and environmental conditions necessary for the optimum effectiveness of a bilingual school system.

The study that would be of particular interest and at the same time complement this research would be a detailed anthropological survey of one or more of the isolated and primitive Ticuna groups that are reported to be living near the headwaters of the Cotohue River in Peru. This would be a way to possibly discover the degree of acculturation the Ticuna living in contact with the mestizo has achieved through a comparison between the more acculturated and the more primitive. A study of this isolated group should be undertaken in the immediate future since these Indians are perhaps the last link modern man has with aboriginal Ticuna culture.
A study which would be interesting and at the same time build on the present research would be that of comparing the systems of jungle Indian education among the Ticuna Indians living in Peru, Colombia, and Brazil. It is obvious that, as the Amazon Basin continues to open to this burgeoning industrial age, more and more labor and raw material will be demanded. The Indian must learn to read, write, cypher, and have some idea of both his cultural heritage and his national heritage; that is, if he is to take part in this revolution. Progress will be slowed and the Indians will continue to be exploited unless effective ways to educate them are not adopted by certain national governments. Perhaps research as described above could be carried out on a cooperative basis between the neighboring countries.
CHAPTER BIBLIOGRAPHY


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17. Licencia No. 332, issued by El Concejo Distrital de Ramon Castilla to the Indian Community of Cushillococha allowing the commercial operation of a second class saw mill, Caballococha, January 15, 1969.*


20. Wisler, Carol, How the Cattle Program Contributes to the Over-all Task of SIL/WBT, pre-publication draft, Yarinacocha, 1969.

*Copies of these letters and document are contained in Appendix B.
APPENDIX A

TICUNA PRONUNCIATION GUIDE
AND VOCABULARY
Pronunciation and Alphabet

The Ticuna alphabet as devised by Lambert and Doris Anderson consists of twenty-six letters. The Ticuna alphabet is sounded in the same manner as the Spanish.*

There are six vowels, which are pronounced as follows:

- a--as the first a in the English word mama.
- e--as the e in the English word net.
- i--as the i in the English word police.
- o--as the first o in the English word oleo.
- u--as the u in the English word tabu (taboo).
- ü--as the oo in the English word hook.

With the exception of the letter u, the Ticuna vowels are sounded as are Spanish vowels. With the exception of the letters ng, the Ticuna consonants are sounded as are Spanish consonants. The letters ng are sounded as the ng in the English word sing.

The Ticuna alphabet consists of the following letters:

```
 a b c ch d e f g h i j l m n
 ñ ng o p q r s t u ú w x y
```

One characteristic of the Ticuna language that is difficult to master is the tonal quality of it. There are five tones involved when one speaks the language correctly. A change of one tone in only one syllable may completely change the meaning of a word. When a letter is written with a diacritical mark (~) over it, that letter is nasalized. In Ticuna only the vowels are nasalized and only those with the

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*From conversation with Lambert Anderson and various Ticuna informants.
diacritical mark. Whenever a vowel has a dash drawn above it, then that vowel is pronounced well down in the throat; this is referred to as laryngealization.

**Ticuna Vocabulary**

<table>
<thead>
<tr>
<th>English</th>
<th>Ticuna</th>
</tr>
</thead>
<tbody>
<tr>
<td>alligator</td>
<td>coya</td>
</tr>
<tr>
<td>almidon (manioc starch)</td>
<td>tupaca</td>
</tr>
<tr>
<td>annona fruit</td>
<td>naxü</td>
</tr>
<tr>
<td>aunt, maternal</td>
<td>naxtuxcú</td>
</tr>
<tr>
<td>aunt, paternal</td>
<td>natuxcú</td>
</tr>
<tr>
<td>arrow</td>
<td>cuxru</td>
</tr>
<tr>
<td>avocado</td>
<td>njuma</td>
</tr>
<tr>
<td>balsa</td>
<td>puna</td>
</tr>
<tr>
<td>banana</td>
<td>iru</td>
</tr>
<tr>
<td>bark cloth</td>
<td>ñoxe</td>
</tr>
<tr>
<td>basket</td>
<td>pexchi</td>
</tr>
<tr>
<td>beam</td>
<td>omûta</td>
</tr>
<tr>
<td>bird, a type of</td>
<td>cuni</td>
</tr>
<tr>
<td>blood wood</td>
<td>pucûre</td>
</tr>
<tr>
<td>blow gun</td>
<td>ixe</td>
</tr>
<tr>
<td>bow</td>
<td>würa</td>
</tr>
<tr>
<td>bread</td>
<td>pau</td>
</tr>
<tr>
<td>broom</td>
<td>tawcheijü</td>
</tr>
<tr>
<td>bury</td>
<td>inanata</td>
</tr>
<tr>
<td>canoe</td>
<td>ngue</td>
</tr>
<tr>
<td>cashew nut</td>
<td>coxü</td>
</tr>
<tr>
<td>cat</td>
<td>michi</td>
</tr>
</tbody>
</table>
cedar

cemetery

cernidero (sieve or sifter)

chambira fiber

chicken

chief

chopper

clay pot

cockroach

cocona fruit

coffin

corn

costume, devil

costume, child's

costume, monkey

costume, with hoops

cow

cumate (a dark dye)

cypress

darkness

darts

deer

demon

devil

dog

dolphin

ocayiwa

tauxque

cuxexchinü

naxi

ota

ãexgacu

purure

barü

orawe

bere

naxchiü

chawu

texichiu

naxrexü

taxü

mawü

woca

cumaka

warixiwa

chütacü

ochagu

cowü

ngoxo

ñhoxo

airu

oramacha
The following are several types of fish that are mentioned in this paper:

fish hook
fish lance
fish with a cast net
fish with verbascum
flag
flower
fly
frog
ghost
gnat
gourd dish
grapes
grave
guava fruit
hammock
hawk

maneca
ia
yiruta
tutu
yori
iyu
otacharaxu
choxni
dexchi
tomacachî
owaru
tucunari
waracu
poxwa
chuchi
natarapae
nachagüê
wonera
putüra
murenü
cururu
naxchixi
tunü
ngaxwe
chixa
naxmu
pama
cúchawa
awe
honey
hoop
izula ant
jaguar
knife
lady bug
grub worm
leaf-cutter ant
lice
lime
mahogany
man
manioc
manioc beer
manioc cake
manioc press
masamora (stew)
mask
monkey, white mouthed
mosquito, small
mosquito, large
murder
necklace
nettle
onion
orange
other people, non-Ticuna

berure
nachine
toxú
yowaruna
cūchi
naxitu
boxo
naiyúxú
naxchira
irimawa
yadiruba
yatú
tüxe
chaxú
piri
tipiti
baxú
mawu
yaxri
ã
tunú
maexta
nachaju
woxwa
chabura
naraña
tomagü
paddle
palm bark
palm heart
palmeto fish
parrot
party, female puberty
party, common
party, work (minga)
pepper
pineapple
plantin
poison
poma rosa fruit
porpoise
post, main
post, small
potato
potato, native
quiver, blowgun
rafters
rat
river
roasted manioc
rubber
rubber-like resin
salt
naxemú
yurachipanú
waira
pacu
wexu
yúxú
peta
waiyuri
mexe
chixnú
poxi
gure
mamé'
omacha
caxta
caxtapara
core
ixru
mezwa
naachinaxagú
üca
taxtú
ui
chiriga
oxwy
yucura
sand
sand fly
school
scorpion
shaman that hexes and heals
shaman that heals only
snake
spider
stairs
stool
string, chambira
string
star apple fruit
suicide
suicide, one who commits
sun
thatch
Ticuna
tobacco
tongue
trail
tree, type of
turtle, mud
turtle, water
uncle, maternal
uncle, paternal

naxnūcū
muxcū
iscurea
tuxchinawe
yuūta
ngixiruxu
āxtape
pawū
toxone
naxmawexe
napanūta
tū
taxū
nūhūnima
nayu
uaxcū
chuā
yuri
pori
conū
nama
cuere
ngobū
tori
tuxtut
nanepu
vulture
wasp
water
water melon
wood
zapote fruit
ngurucu
berure
dexa
worachia
nai
otere
APPENDIX B

MISCELLANEOUS LETTERS, DOCUMENTS, AND
UNCLASSIFIED PAPERS AND MATERIALS.
El Conceso Distrital de Ramón Castilla

Comunidade Indígena de Cusitiocooha

Regional No. 3 de la Tarapacá Vicente

ABRIGOS S/0, 400.00
Señor Director

del Instituto Lingüístico de Verano
Pte

OF No. 1068

El Ministerio de Agricultura ha enviado transcripción de la Resolución Ministerial No. 2971, de fecha 6 del presente mes, cuyo tenor literal es el siguiente:

"Visto el oficio del Servicio Regional de Agricultura de Loreto y el expediente adjunto iniciado por don José Castano Gómez, para que se reserven las tierras que deben ser usufructuadas por los selvicolas de la tribu Ticuna, a orillas del lago Cusihuillacocha, distrito Ramón Castilla, provincia de Maynas, departamento de Loreto; y

CONSIDERADO

Dó: - Que es deber del Estado ocupar la posesión de las tierras de las tribus que habitan en la región selvática del territorio nacional y - De conformidad con lo dispuesto por el Decreto Supremo de Lo. de Marzo del presente año; se REGLASE: Reservanse en favor de los selvicolas de la tribu Ticuna las tierras ubicadas en ambas márgenes del lago Cusihuillacocha, distrito de Ramón Castilla, provincia de Maynas, departamento de Loreto, con una extensión superficial de UN MILLON QUINIENTAS SETECIENTOS NUEVE SETENTA Y CUATRO MIL QUINIENTOS METROS CUADRADOS (1,572 has, 1,575 m²), dentro de los límites siguientes: por el Norte, con pantanos baldíos; por el Sur, Este y Oeste, con montes baldíos. Regístrase y comuníquese. Dicho es labrado en el Ministerio de Agricultura. Que transcribo a Ud. para su conocimiento y demás fines. Díos guarde a Ud. Pido: LUIS A. RODRIGUEZ. Sub-Director General de Administración."

Dios guíe a Ud.

Luis A. López Gallego
Director de Educación Líneaal y Alfabetización

DISTRIBUCION:

Sr. Dr. Brian Morote Best. Coordinador de las Na. de la Salve.
Departamento Pedagógico
Director del Instituto Lingüístico de Verano
Director del Trasiego Amazonico
Archivo.
Señor Fernando Cuello Pascual
Teniente Gobernador del Caserío "Cusillococha"

Ramon Castilla

En la fecha se ha expedido por este Despacho la Resolución que sigue:

"Visto el Memorial presentado por los moradores del Caserio Cusillococha, compraventa del Distrito de Ramón Castilla, en la provincia de Maynas, solicitando la creación de una Tenencia Gobernación; y, considerando que en dicho Caserio habita una población de regular densidad, incluyendo el funcionamiento de una Escuela Fiscal Mixta y siendo necesario contar con ella para el mejor control del Caserío y garantía de sus propiedades; -SE RESUELVE: Conceder lo solicitado, creándose la Tenencia Gobernación en el Caserio Cusillococha" cuyos límites serán los siguientes: Por el Norte con la Isla de Cacao; por el Sur con el Caño de Yanayacu y montes baldíos; por el Este con el río Amazonas y por el Oeste con el Caño de Caballococha. -Trátese a la Subprefectura de Maynas para que proceda el nombramiento de un Teniente Gobernador para dicho Caserio; anótese y archívese. -(fdo) Gral. Morla Concha, Prefecto de Loreto"

Que trátese a Ud. para su conocimiento y a fin de que proceda a expedir nueva resolución, nombrando al Teniente Gobernador del Caserio en referencia con las rectificaciones anotadas. -
El Teniente Gobernador es Don Fernando Cuello Pascual.

Dios guárdalo a Ud.

Gral. Manuel Morla Concha
Prefecto de Loreto
CONSEJO PROVINCIAL DE MAYNAS
ALCALDÍA

QUITO, 3 DE MARZO DE 1961

Of. No. 144

Señor don José Canete Gómez, Agente Municipal del Caserío de Cuschillococha.

Se ha expidido por esta dispensa resolución que sigue:

"QUITOS, 3 de Marzo de 1961.-Visto el memorial que antecede, presentado a la Prefectura del Departamento, por los habitantes del Caserío de Cuschillococha, comprendiendo de este provincia, solicitando la creación de una Agencia Municipal, que según dicho Caserío tiene una regular población de habitantes con una Escuela libre, sin contar con Registro Civil donde poder inscribir los nacimientos y defunciones; y CONSIDERANDO: Que es deber de los Municipios atender a los Registros del Estado Civil; cuya importancia para la identificación de la personalidad del individuo así como para la estadística demográfica es indiscutible, que la existencia de una Escuela es suficiente demostración de la calidad del Caserío de Cuschillococha; y si se tiene en cuenta que por ley se ha establecido la creación de Aguas Medianas y Con Registros Civiles en las Comunidades de Fronteras, con la mayor razón es atendible la petición que formulan los vecinos del Caserío citado; y Estando a los fundamentos anteriores acordamos el pedido: 1°.-Establecer una Escuela para la promoción de esta escuela; 2°.-Habrá a los ciudadanos del Caserío de Cuschillococha, don José Canete Gómez para el desarrollo del cargo de Agente Municipal; y 3°.-Declaración con el conocimiento de la resolución del Consejo y dándole cuenta al Consejo. Fdo.-JULIO A. PEREZ INIANES, Alcalde Asoc.-Fdo.-HUGH ESCOBEDO RUA, Secretario.

Lo que transmite a Ud., para su conocimiento y demás fines.

Dato: en mi nombre a Ud.

[Signature]

Julio A. Pérez Linares
Alcalde Asoc.
Iquitos, 28 de abril de 1961.

Oficio No 17

Señor Secretario General del Fondo Nacional de Desarrollo Económico
L.I.N.A.

Tengo el agrado de dirigirme a usted remitiéndole adjunto el original del informe presentado a este despacho por los moradores del caserío denominado "Cushillococha", en el distrito de Ranca Castillo (capital Caballo-cocha), comprensión de la provincia de Maynas, sobre la apremiante necesidad que tiene dicha comunidad de contar con las eléctricas.

Teniendo en cuenta que el mencionado lugar ha surgido y se ha formado debido a la constancia y esfuerzo de los moradores indígenas, se hace necesario otorgarles ayuda efectiva en compensación a su sacrificio patriótico, y para la prosperidad de ese lugar fronterizo.

Solicitan la instalación de un grupo electrogeno diésel de 20-30 KW, para dotar de luz a una escuela nocturna, un pequeño puesto sanitario, para el funcionamiento de hirvientes eléctricos y para sus propios hogares.

Estimado Sr. Señor Secretario General, tomar en consideración el pedido en referencia, a fin de que sea atendido cuanto antes.

Dios guíe a usted,

[Signature]

General Manuel Noriega Concha
Prefecto de Loreto
Lima,

Tengo el agrado de dirigirme a Ud., para manifestarle que, atendiendo a la sugerencia hecha por el Secretario General en su of. No 1170-62, de fecha 10 del presente, referente a
la donación de un Grupo Electrógeno Diesel de 19 kW., para Cashilliococha, la Junta de mi presidencia, en sesión celebrada el 22 de los corrientes, ha acordado lo siguiente:

1°.- Adquirir un Grupo Electrógeno Diesel de 19 kW., para el Caserío de Cashilliococha, con el compromiso de pagarse en Enero de 1963 y con cargo a la Asignación departamental de dicho año;
2°.- Que, la comisión Técnica de CUSILLUCCHA, del distrito de Sanón Castilla, provincia de Caynas, se comprometa aportar la obra de mano en general e inclusive la provisión y colocación de escasa (60) postes de madera de 8.50 m. del alto y la construcción de la Casa de Máquinas; y,
3°.- Consignar en el Plan de Obras del presente año un Partida de S 40,000.00 para la adquisición de los materiales para la Red de Distribución Eléctrica; debiendo comunicarse el presente acuerdo a la Secretaría General, para su correspondiente aprobación por el Consejo Superior del P.N.D.E."

Lo que comunico a Ud., a fin de que se sirva gestionar la aprobación correspondiente por el Consejo Superior a fin de que sea considerado en nuestro Plan de Obras del presente año, pendiente de aprobación.

Aprovecho la oportunidad para reiterarle las expresiones de mi distinguida consideración,

Dios guarde a Usted,

Ildo Willy Benesquen Nájar,
Vicepresidente.
Mr. James L. Sullivan  
Box 6486 NT Station  
Denton, Texas

Dear Mr. Sullivan:

Rolland Rich is out in the tribe at the moment so to help him out I am answering some of the questions you made in yours of September 28th.

I suppose that you are familiar with the article "The Tukuna" by Nimuendajou. This is out of print but you will likely have a copy in your university library. Other articles are: Farewell to Eden, and "Who Brought the Word", and also "Conversational Ticuna", all of which should be ordered from our Santa Ana Office. That address is: Box 1960, Santa Ana, California 92702.

We are including the booklet, "Bilingual Education and Community Development".

The Lambert Andersons suggest you compare Cushillococha with Mario Azul, 45 miles downriver to get an idea of the effect of the bilingual school program.

Very sincerely yours,

Eugene Loos  
Coordinator of Technical Studies

P.S. Farewell to Eden is $15.00 (it is a good sized book), Who Brought the Word $1.95 in paper back. Possibly Santa Ana has a lower price because of quantity.
CONVENIO CELEBRADO ENTRE EL MINISTERIO DE EDUCACION PUBLICA DEL PERU Y DON GUILLERMO TOWNSEND, DIRECTOR GENERAL DEL SUMMER INSTITUTE OF LINGUISTICS INC. DE LA UNIVERSIDAD DEL ESTADO DE OKLAHOMA, DE LOS ESTADOS UNIDOS DE AMERICA.

Conste por el presente documento, suscrito por triplicado, que el Ministerio de Educación del Perú y el Instituto Lingüístico de Verano (Summer Institute of Linguistics, Inc.) relacionado con la Universidad del Estado de Oklahoma de los Estados Unidos de América, han convenido en desarrollar un programa de cooperación para la investigación de las lenguas indígenas de la República, en especial de las de la Selva Amazonica. Dicho convenio de cooperación se efectuará de acuerdo con las siguientes finalidades y condiciones que se expresan a continuación.

PRIMERA. - Se desarrollará un programa de investigación que podrá comprender: (a) Un estudio profundo de cada lengua en el que deberá incluirse un análisis adecuado de su sistema fonético y morfológico y una recopilación comprensiva de su vocabulario; (b) Un estudio comparativo de las lenguas aborígenes entre sí y en relación con los demás idiomas del mundo, para su correspondiente catalogación; (c) La grabación de discos fonográficos en cada idioma, perpetuando así, para la posteridad, la viva voz de cada tribu; (d) La recopilación de datos antropológicos y la confección de colecciones fotográficas que demuestren tipos de fisonomías, vestidos, casas, mobiliarios, instrumentos, industrias y diversos aspectos de la vida; (e) La copilación de datos respecto a yeras medicinales, tintes, etc.; (f) El estudio de leyendas, cantos y otros datos folklóricos; y (g) La amplia cooperación con todas las organizaciones interesadas en estudios de investigación científica de otros aspectos de la vida, de las tribus indígenas.

SEGUNDA. - Se llevará a cabo, también, un programa de servicios prácticos, conforme a los siguientes puntos: (a) La prestación de servicios por parte de los investigadores del Instituto como intérpretes a las autoridades educacionales, sanitarias y otras que lleguen a las regiones donde éstas se establezcan; (b) La organización de cursos de capacitación lingüística para grupos de maestros rurales que desempeñan el magisterio en poblaciones indígenas y que desconozcan las lenguas autóctonas de la zona; (c) La preparación de cartillas en los idiomas indígenas para facilitar a los analfabetos el aprendizaje de la lectura y de la escritura; (d) La elaboración de cartillas bilingües (español-indígena) con el propósito de facilitar el aprendizaje del idioma oficial; (e) La traducción a las lenguas aborígenes de leyes, de consejos sanitarios, de manuales agrícolas, de curtido de pieles y otras manufacturas, así como de libros de gran valor moral y patriótico; (f) El fomento del deporte, del civismo y del servicio cooperativo; (g) El desarraigoamiento de los vicios, por todos los medios que sean posibles.

TERCERA. - El Instituto Lingüístico de Verano prestará, además, los servicios gratuitos de algunos de sus profesores, cuando el Ministerio de Educación Pública organice cursos para la capacitación de jóvenes lingüistas peruanos.
CUARTA.- El Instituto cooperará con el Ministerio de Educación en la publicación de una revista de Lingüística Peruana, en la preparación de exposiciones de objetos, y en conferencias filológicas indígenas que el referido Ministerio realice.

QUINTA.- Los servicios de campo de los investigadores del Instituto y los de publicaciones, mencionadas en la cláusula cuarta, se realizarán gratuitamente para el Ministerio de Educación Pública, pero los cursos especiales de capacitación lingüística de maestros rurales peruanos, serán remunerados.

SEXTA.- El Ministerio de Educación Pública se compromete, a proporcionar al Instituto Lingüístico de Verano: (a) una oficina en Lima con su respectivo equipo; (b) gestionar ante el Departamento de Inmigración la permanencia de los investigadores del Instituto en el País, con exoneración del impuesto de extranjería, por tratarse de investigadores científicos al servicio del Estado sin remuneración; (c) solicitar, asimismo, ante el Ministerio de Fomento la autorización respectiva para que el Instituto Lingüístico de Verano pueda ocupar terrenos baldíos, por el tiempo necesario, en los sitios donde establezca sus bases de investigación y sus servicios prácticos; (d) gestionar ante el Ministerio de Aeronáutica los permisos necesarios para que el Instituto en referencia importe o adquiera en el país y use en el desarrollo de sus labores de investigación, uno o más aviones, anfibios, helicópteros o de otro tipo, para el transporte de sus investigadores por la selva; (e) gestionar ante el Ministerio de Gobierno y Policía los permisos necesarios para que el Instituto adquiera y use, dentro de la selva, aparatos radioemisores y radioreceptores, y otros equipos necesarios, quedando sobreentendido que los aparatos referidos estarán también al servicio del Gobierno Peruano, para los fines que juzgue convenientes; (f) gestionar ante el Ministerio de Hacienda y Comercio la importación al país, libres de derechos de Aduana, de los equipos, implementos, maquinarias, aparatos, efectos personales y otros artículos, que de común acuerdo se juzguen necesarios, para el eficiente desarrollo de las labores del Instituto.

SEPTIMA.- Este convenio podrá ser reformado o ampliado en cualquier tiempo de acuerdo de ambas partes y regirá desde esta fecha hasta que terminen las investigaciones lingüísticas especificadas o hasta que el Gobierno Peruano dé por terminado dicho convenio, previa notificación expresa, no menor de un año; debiendo en caso contrario indemnizar al Instituto las inversiones que hubiera hecho.

Suscriben el presente, por triplicado, en la ciudad de Lima, República del Perú, el día 28 de junio de mil novecientos cuarenta y cinco.

Por el Ministerio de Educación Pública

ENRIQUE LAROZA
Ministro de Educación Pública

Por el Summer Institute of Linguistics, Inc.

GUILLERMO (WILLIAM) C. TOWNSEND
Director General del
Summer Institute of Linguistics
APPENDIX C

ETHNOGRAPHIC MATERIALS COLLECTED
AMONG THE TICUNA INDIANS LIVING
AT CUSHILLOCOCHA, PERU
Bark cloth mat or **chama** (T., yanchama)

**name:** Bark cloth mat (T., yanchama).

**conditions of collection:** Several bark cloth specimens were purchased from various Ticuna settlements along the Amazon. This particular one was purchased from an unnamed woman living on the Rio Cacao. She brought the mat to Cushillocococha and sold it for 20 soles.

**use:** Bark cloth (T., noxe) is used for various purposes, such as: sleeping mats (T., yanchama), ceremonial hoops (T., machine), costumes, and other items that utilize cloth.

**construction:** Noxe is made from the inner bark of several mulberry-like trees of the Fictus family. There are three trees from which this cloth may be made. Two of the trees have an inner bark that is brown, the other called oje by the Ticuna has white bark. The Indians cut a ring around the tree and then begin to beat the outer bark with a flat heavy club that is approximately 50 cm. long. After the bark is well pounded it will peel off in large sheets. After the bark is taken off the tree the outer bark is separated from the inner bark and the inner bark is kept. This bark is alternately washed and
pounded until the proper size and thickness is achieved. The various items made from noxe are often decorated with geometric designs and pictures of faces, animals, birds, fish, and people. These designs are painted with several different vegetable dyes. A few of these plant dyes are described:

yellow - made from a plant called guisador (T., dexecu).

green - comes from the red fruit of a broad leafed plant called naixcu.

crimson - is obtained from the crushed seeds from the burr-like fruit of the achiote tree (T., uta). This tree is cultivated.
Blowgun or Pucuna (T., ixe)

name: Blowgun (T., ixe). The Indians also use the Spanish name pucuna.

conditions of collection: The blowguns that were a part of this study were obtained at Bellavista, Loreto. Neither of the guns were new; in fact, the owners did not remember when they were made. The pucunas had not been used in several years. The cost for one was 10 pesos and the other was 15 pesos. (The rate of exchange was approximately 18 pesos Colombian money per one dollar United States currency.)

use: The pucuna was used by the Ticuna as a device for killing birds, monkeys, and other small game. The blowgun was seldom used among the more acculturated Ticuna today.

construction: The blowguns illustrated were made from blood wood (palo de sangre) Cesalpinia echinata and a very hard wood that the Indians called naxe. Naxe may possibly be Oenocarpus multicaulis. A very straight limb of the naxe was cut, approximately three meters in length. The limb was hewn into a rectangular rod approximately 6 cm. on one end and tapering to approximately
construction, continued:

3 cm. on the other end. This rod was sawed through the center lengthwise. A longitudinal groove approximately 3 mm. wide was carved in each half. A cord was tied to the limb of a tree approximately 5 meters from the ground. A heavy weight was attached to the other end to keep the cord taught. The two halves of the rectangular rod were lashed together with this cord extending through the longitudinal grooves which formed a bore. The two halves that had been bound to the cord were pulled up and down, as one unit, while a sand and water mixture was poured on the upper end. The sand acted as an abrasive slowly enlarging the bore of the new blowgun. At the beginning of this operation the two half pieces did not come together but as the abrasive action continued the two halves finally closed. After the two halves close the rod was joined together with oxwy, the pitch-like substance from the plant Moronoea sp. and the outer surfaces are carved round. After the blowgun was carved it was wrapped with strips of bark that were saturated with oxwy. A mouth piece was made from palo de sangre. The mouth piece was shaped like a large spool. The mouth piece was affixed to the gun which was then coated with oxwy.
Blowgun Quiver (T., mexwa)
Blowgun Darts (T., ochagu)

The quiver and darts pictured above came with one of the guns that were purchased at Bellavista.

The quiver is a container for the poisoned darts. Darts are not placed in the quiver until both the poison and cotton or kapok are applied to them. The cotton is attached so as to both aid the dart in flight and also make an air tight fit in the breach of the blowgun.

The quiver was nothing more than a long basket woven out of cane strips. Small hollow reeds were placed in the quiver to hold the darts in place. The darts were made out of several different materials. The most common material used was the heavy center sections from the chambira palm leaves. The darts were coated on their tips with curare* which was allowed to dry then placed in the quiver.

*The Indians interviewed did not know how to make curare. Apparently since the ixe is no longer used they have lost the art of poison making.
Bow (T., wura) and Arrow (T., cuxru)

These items were purchased for 15 pesos Colombian money from Jose Gaeta in Marhuazu, Brazil, on June 25, 1970.

The Indians construct bows and arrows primarily for sale to the mestizo traders and to tourists in Leticia. They seldom use them for hunting. More often the bow and arrow is used for fishing; however, this means of catching fish was not so popular as using the fish lance (T., chuxcui).

The bow is made from black palm. Only the outer three to five centimeters of the palm were used since this was the hardest part of the tree. Occasionally the wood was tempered in fire to give it more strength and flexibility. The arrows were made from cana brava and the points were fashioned from pieces of wire. Each point had several sharp barbes. Normally the Ticuna arrows have no feathers but rely on the weight of the point to keep them true on target.
Canoe (T., injue).

This canoe was purchased from Nicasio Caetano for the sum of 200 soles. Caetano, who lives in Cushillococha, built the canoe. This canoe was purchased on June 27, 1970. It was approximately three months old and was in daily use at the time of purchase. Canoes are used for transportation and fishing. In addition they may be used for bathing and washing clothes as a tub. Whenever a canoe becomes unserviceable, it is used as a container for storing various food products or as a container for food preparation.

The method of constructing dugout canoes is the same among most Indians in the Amazonia. A suitable log is first carved inside and out into the general shape of a canoe. Before final shaping is done small holes are bored in the hull to insure the proper hull thickness. After the canoe is carved to the maker's satisfaction it is expanded with fire. That is to say that the canoe is placed over an open fire and the gunwales are forced outward. This particular canoe was carved from a cypress log.
construction, continued: Other canoes were carved from a wood that the Indians called oxquene, which was unidentified.
Carvings (T., nanawi)

These carved figures were obtained from various Ticuna Indians living at Santa Rita in Brazil. They were purchased by Leonardo Witancourt in late 1968, on a trip he made down the Solimoes. The purchase price was one peso Colombian money each. Small carvings are used exclusively in the construction of necklaces and bracelets. Larger figures are used for decorative pieces and sold to the mestizo traders. These carvings depict almost all of the animals and birds known to the Ticuna. Some of the carvings are of no particular animal rather of some imagined beast. Most of the wood used in figure carving by the Ticuna was palo de sangre. Palo de sangre is a close grained hard wood of the mahogany family. The small figures which are used for necklaces were carved from several different materials. The larger round animal figures were made from the nuts of the chambira palm. Usually carving of the small figures for necklaces is work for women but the larger figures may be carved by both men and women.
Ceremonial Hoop (T., nachine)

<table>
<thead>
<tr>
<th>name:</th>
<th>Ceremonial hoop (T., nachine).</th>
</tr>
</thead>
<tbody>
<tr>
<td>conditions of collection:</td>
<td>This particular nachine was purchased from Biritos Farias. He had gotten it from Nolberto Fernandes following a fiesta de pelacion late in 1968.</td>
</tr>
<tr>
<td>use:</td>
<td>This object is used by the Ticuna only at the female puberty rites. The nachine is used in several of the dances. After the fiesta is over the hoops are given to the owner of the fiesta.</td>
</tr>
<tr>
<td>construction:</td>
<td>The nachine are made from noxe which is decorated and tied to a hoop made of supple tree limbs. Nachine are made in all sizes, usually from one to two meters square. This nachine is unusually large; it measures over three meters square.</td>
</tr>
</tbody>
</table>
Chambira (T., naxinuta) and Related Products

The wife of Pastor Valencia, one of the informants of this research, prepared the chambira fiber, twine, and broom in the photograph above on July 18, 1970. She collected the leaves, in the upper portion of the photograph, behind her house from a chambira palm approximately 10 meters high. Naxinuta is obtained from the unopened leaves of the chambira palm. The fine membrane, which when dried becomes the naxinuta, is stripped from the underside of each leaf half and allowed to dry.

To make twine from the raw chambira fiber the dried filaments are twisted by hand across the outer thigh. This is exclusively women's work.

Brooms are made by twining together bunches of the vein-like center sections of the leaves after the naxinuta has been removed from them.
Children's Costume (T., naxeru)

These costumes were purchased from Biriatos Farias on July 15, 1970 at Cushillococha. They cost 25 soles each; they were new. Note Devil Costume on page these costumes were made in the same manner as described on the following page. The costume on the left is a monkey costume (T., taxu); the other is a maise costume (T., chawu).
Devil Costume (T., texichiu)

This costume was purchased from Biritos Farias in Cushillocococha on July 15, 1970. Farias had been the owner of a fiesta de pelacion and had obtained several excellent costumes and ceremonial hoops. The costume is made in two parts, a head piece and trousers. The mask is made of a wicker-like frame work covered with bark cloth. The gaping mouth is made from balsa wood with small pieces of broken mirror stuck into it for the teeth. The high cheek bones are made of two gourd halves and the eyes of pieces of tin can. The bark cloth covering on the mask is painted with a thick coat of pitch-like material that is made from the sap of the Moronobea sp., a jungle tree. The brown fringe around the sides of the mask is made from another type of noxe. The type of bark cloth is naturally brown in color. The trousers are also made of bark cloth and are decorated with vegetable dyes. If the design on the trousers had any particular meaning it is no longer known.
This particular type of costume has several folk tales connected with its construction. The most interesting, perhaps, is the reason for the inclusion of the male organs. One of the tales having to do with this is a portion of their creation myth. This myth concerns two brothers who were god-men. The eldest brother had a very beautiful wife that the younger man wanted for his own. The husband would turn his wife into a moth and hide her in the folds of some cloth whenever he was away from the house. The younger brother would come to his brother's house and search for the young woman, but he could never find her. Finally one day he flew into a rage jumping and stamping about the house. As he was doing this the girl, looking out from her hiding place, saw the genitals of the man as he jumped about; no one wore clothes in those days. When she saw this sight it caused her to laugh out loud. The younger brother then found her and took her away. Nimuendaju tells another folk tale which attributes these kinds of costumes to the god of the wind who went about the jungle knocking down the trees with his organ. However, the Ticuna of Cushillocococha were not aware of this story.
Drum (T., tutu)

This drum was purchased from Liborio Coello for 30 soles on July 15, 1970. Drums are used in all types of celebrations and fiestas where music is made. The drum is usually struck with a small stick with a blunt end. A drummer keeps a strict 125 beat per minute cadence for most indigenous music. Dancers move about in a swaying march-like gate. Their dances look much like marching soldiers especially when they have dance staves over their shoulders. The drum body is carved out of a single block cedar. The drum head is made from the skin of the coto monkey (T., njexe). The drum head is held on with loops of bamboo and tied with chambira. A snare is used; it is made from a thin filament of naxinuta. All Ticuna drums are not decorated as this one is. The decoration has no particular significance; they are traditional Ticuna designs.
Fish Lance (T., cuxchi)

name: Fish lance (T., cuxchi).

conditions of collection: This cuxchi was obtained from the nephew of Pastor Valencia. The cost was 5 soles. The lance, which was made by Valincia, was purchased on June 15, 1970, in Cushillococha.

use: The cuxchi was used exclusively for fishing. The lance was usually cast from the butt end, in an arch perhaps as far as fifteen meters ahead of the canoe, at schools of fish.

construction: The shaft of the fish lance was made of a three meter length of cana brava. The barbed head was constructed of pieces of steel wire that had been flattened on the ends and barbes filed in them. The bars were forced into the large end of the cane and chambira cord was used to bind them in place.
Hammock (T., napa).

This hammock was purchased from a teacher in the boy's school at Cushillococha on July 10, 1970. The purchase price was 150 soles. A few days later an identical hammock was purchased from Ermita Cerra for 50 soles. There is no established price not only for hammocks but also other folk products. Both of these hammocks were new. Hammocks were made by the Ticuna exclusively from chambira. They were woven with a single cord between two upright posts. They were dyed with uu. The uu was applied to the cord before weaving.
Manioc press (T., *tipiti)*

This *tipiti* was purchased new from Ermita Cerra of Cushillococha on July 15, 1970. The price was 25 soles.

A *tipiti* is used to squeeze the moisture and *almidon* (starch) out of ground manioc in one of the preliminary steps in the preparation of *farina*. The *tipiti* works on the same principle as 'Chinese handcuffs.'

The *tipiti* is woven from split bamboo (note figure ). Making the *tipiti* is exclusively women's work.

*Note photograph on page 88, "Making a tipiti."
Monkey mask (T., toxu)

This mask was purchased from an unknown boy at Cushillococha on June 24, 1970. The mask was new. Masks of this type are used at the female puberty rites. The body of the mask is carved from balsa wood (T., pune). The shroud and hair are made from noxe. The red pigment is uta. The eyes are pieces of glass. No two of these masks are ever exactly alike. The Indians vie to see who can make the most grotesque looking mask. Usually a costume is worn with the monkey mask.
Necklace (T., nachaju)

These necklaces were collected at Marihuazu and Cushillococha on June 14, and July 21, 1970, respectively. They were purchased from Carolina Caetano and Isolinda Turima at a cost of 15 soles for one; the other was 5 pesos Colombian money. The cost in United States currency was about 25¢. Women wear them and they are items of trade. Some necklaces are used by both men and women with costumes.

The carved animal figures are from chambira palm nuts (T., owu) and tupanaet beans. These along with other objects such as bones, seeds, feathers, and others are strung on a cord of chambira fiber (T., noxe). Chambira nuts are located at the top of the photograph. The small seeds strung on the necklace to the right are called munoeta by the Indians. The large bones are the hip bones of mud turtles.
Paddle (T., naxemu)

The two paddles that were collected as a part of the present study were purchased in Cushillococha on June 15, 1970, from Nicasio Caetano. The larger of the two cost 60 soles and the smaller, 15 soles. Ticuna paddles were primarily used for propelling their canoes. Many canoe paddles were also made for trade to other Indian groups and to metizo traders. Often an old paddle was used by the women in the preparation of certain foods and beverages.

Paddles were carved from several different varieties of medium hard wood such as pine or mahogany. After the paddle was carved it was painted with comate juice and covered with a mixture of ashes and urine. The resultant painted surface looks almost like it had been lacquered with an acrylic.

The larger paddle was 140 cm. in length and 23 cm. across the bell. The smaller paddle was 60 cm. in length and 9 cm. across.
Rattles (T., aru)

These rattles were purchased at Cushillocococha June 27, 1970, for the sum of 20 soles. They were bought from Francelino Sampayo. Rattles were used at all types of fiestas. They were normally attached to a staff which was rhythmically struck on the floor keeping time to the music and the drums. The rattles were struck every third to sixth beat. Rattles were made from chewero nuts that had been drilled and a sound groove cut in them. The hole for stringing the shells was made by a special wire bit (T., dexecu) that was only used for this purpose. This type rattle is not used to the extent today that it was in the past. Quite often the Spanish maraca was used in place of the aru among the more acculturated Ticuna.
<table>
<thead>
<tr>
<th>name:</th>
<th>Stool (T., naxmawexe).</th>
</tr>
</thead>
<tbody>
<tr>
<td>conditions of collection:</td>
<td>This stool was purchased for 2 soles from Luisa Gomez on July 15, 1970, at Cushillococha. The stool had been in use for a number of years.</td>
</tr>
<tr>
<td>use:</td>
<td>The naxmawexe were used primarily by women when cooking on the ground; men also may use these stools. The Ticuna do not like to sit on the bare earth.</td>
</tr>
<tr>
<td>construction:</td>
<td>This stool was made over eight years ago by Luisa's husband. The stool was carved from a piece of hard wood that appears to be palo de sangre.</td>
</tr>
</tbody>
</table>
APPENDIX D

MAPS AND CHARTS
Flat of the Land Granted to the Ticuna of Cushilloscocha
The Area of Ticuna Influence
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