Nomads of the Long Bow

The Siriono of Eastern Bolivia

Allan R. Holmberg & Lauriston Sharp

1969

Contents

Anthropology

ALLAN R. HOLMBERG

Nomads of the Long Bow

Foreword by Lauriston Sharp ,

From 1940 through 1942 a young anthropologist lived among one of "the most technologically handicapped people of the world."

With a three-foot digging stick and a cumbersome long bow and arrow, the Siriono Indians struggle daily to s1;1rvive in the tropical rain forest of eastern

Bolivia. Lacking the knowledge to make fire, they borrow it from neighbors, transporting it fron1camp to camp in a palm spadix. Withou t the manufacture of watercraf t, they wade and sWim their Way across the j ungle rivers of their homeland.

This edition 'was revised by the author shortly bef ore his death in 1966. The editors have added a Foreword by his close friend and colleague, Lauriston Sharp, and Holmberg's 1954, account of his experiments in cultu re cha nge among a group of Siriono not included in his original study.

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N O M A D S OF TH E L O N G B OW

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ALLAN HoLMBERG's erudy death in 1966 deprived anthropology of a leading innovator .antl distinguished scholar. As .a Sterling Fellow in Anthropology at Yale, Dr. Holmberg completed his doctoral thesis on the Siriono Indians in 1946, published here as revised by the author shortly before his death. In 1948 he joined the f aculty of Cornell University and began eighteen years of work in applied anthropology, using his knowledge to correct the injustice of poverty, sickness, and ignorance among peasant peoples in developing areas of South America.

Professional recognition caine to Dr. Holmberg• b:i such posts as Chairman of the Department of Anthropology at Cornell, Director of the University's renowned Peru Project, Treasurer of the Society for Applied Antbropol<;>gy, aɹd membership on the President's Scientific Advisory Committee, the Latin American Science Board, the Committee on Overseas Studies in the Behavioral Sciences of the National Academy of Sciences, and the Advisory Board of the Cornell Program in Social Psychiatry.

66° 64° 62°

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San Joaquin •

SIRION,**O**

•Santa Cruz d'e la Sierra

66° 64° 62°

Territory of Eastern Boliv,ia Occupied by the Siriono

NOMADS

OF THE LONG BOW

The Siriano of Eastern Bolivia

A L LA N R . H OL M BE R G

I

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ILLUSTRATIONS

FOREWORD

Tms account of the ear-starving Siriono Indians, forang ough th tropical swamps :and forest§ of eastern Bolivia, was written by a young anthropolqgist at the beginning of his career. The book was originally conceived as a technical monograph to be read by a few specialists. Even worse, it was a doctoral disse:r:tation designed to demonstrate the author's professional .comp-etence as an ethnographer. Those of us who have read scores of such theses know that few of them are very readable as literature and that fewer still are very exciting.

Yet, soon after Allan Holtnberg's thesis was deposited on the library sh'e)ves of Yale Univrsity in 1947 it began to excite the keenest professional interest antt discussion among anthropologists. Pubhed three years later by the Smithsonian Institution, it attracted a wider circle of excited readers and was soon out .of print. Throughout the worJd, enthusiastic scholars and students of man began to read, study, and argue over his work. In this new edition, published posthumously, Holmberg's thesis is now made available again not only to the scholar and student but to the general reader wha woqld share with the scientist something of the excitement and adventure of anthropologioal discovery.

The lowly *b*ut instructive Siriono are -an Old *S*ton*e Ag*e *peop*Te. They may have degenerated to-this *level* Irom a more advanced technicl condition, a view long rejected by the author, or they may simply be survivors who "from the beginning" retained a variety of man's earliest culture. The problem is intriguing, but is irrelevant to the value of this book as a Paleolithic ethnography, a systematic description by a professionally trained eyewitness of the way of life of a still-living Old Stone Age people. It •was at this Paleolithic level of subsistnce, under conditions of' a hunting and gathering technology without domesticated crops or livestock that man developed, and our own and the Siriono's ancestors became Homo sap1•ens.

Paleolithic man, however wise or oolish, is inevitably outside of history, for without writing, he has no written record of his own. Nor have Old Stone Age societies successfully survived the depredation of the New Stone Age and civilized men -as these extended their uncompromising ways of Jife .over the globe. Thus, few Paleolithic peoples ever enter history, and fewer still remain there,-that is:, unless a rare Holmberg appears on the scene from some civilization to bring them into the human record. Simply as a description of such a group, Hohnberg'*s* work constitutes an important contributi0n to the.study of ;nan. lt is not easy to make gene:ralizations about Paleolithic peoples. The small •sample of simple, Old. Stone Age folk surviving into our times-the Eskimo and a few Indian groups in North and South America, pygmies and bushmen of Africa, Oceanic Negritoids, aboriginal Australians-shows a considerable range of behavior differences, as well as some general similarities. Some have been cited as aggressive and generally malevolent in support of the popular *Lord of the Flies* or *Naked Ape* thesis that man is by nature born ornery and vicious. Others have been called *The Harmless P.l}Ople* and used to support an argµment such asPrince Kropotkin's that within the simple group mutual aid and. norms of benevolence are of value for survival and are thus an original aspect of the human condition. The data on the surviving Paleolithic Siriono are important to this debate and to the even older: deJ5ate on tlie roles of Nature versus Nurture in shp4i;g human behavior. We may well join prehistqrians, eijlflogtphers, and other specialists :in welcoming J plmberg's work, which discovered, deiscribed, and. thus .introduced into history a new and in many, respeets extraordinary Paleolithic experience.

Theoretical rather than humanitarian interests led•

Holmberg to seek out this starving group of Indians• for lils dissertation research. He did not know what he would fiilfi, for the Siriono were scarcely mentioned in the existing literature. But he hoped he might discover data with which to test the universality of some of the psychoanalytical assumptions popular in the

1940s. Anthropology, with its wide range of interests, is notorious for its discovery of a number of famous negative cases-single examples of patterned behavior that demonstrate the need to modify or throw ou dogmatic. n9ttons based on a too narrow, parochial or biased snning of the human data. The negativ,e 'Cas,e is the exception, that proves or tests the rule, that certain behavior is universal as claimed and thus probably inevitable in human experience.

During, the past half century the psychoanalytic portrait of human personality has come to be widely and almost unconsciously accepted by Western and Western-educated publics as a good likeness. Accord'ing to this view, the •sexual drive is univei:sally the most dominant in the conscious and unconscious lives of human beings. ftnd sexual]ibido ,in myriad *mani*festatiQn is seen as the• basic core of *human* action liere . except, as we discover here, among . fFie hungry Srrionof If the Iiunger clrive •can displace sex 1nmuch of the normal waking and dreaming life •of thesefood-starved Indans, then °the,role of this and of *other* appetites in the frustrations of OU:F lives *neeas* to be i-econsfdeted, anct the working out of sucli *f rustrations* in overt and covert behavior requires further investigation. The lesson is that our *f*irst attemPct must always be to understand the complicated life of each individual and of each group _in its own specific terms . while obtaining what help we -can from "universals" drawn from our still too limited samples of humankind. -

The trends and traditions of local cultures must be understood and utilized if the lives of individuals, and the group as a whole, are to be effectively ehanged by conscious in:Huence exerted from outside, as is the aim of our modem programs of teahn,ical aid-. It is clear that the specific traditional Siriono attitude_s toward food co"Qld have been made to play a crucial role when mission or govemmeat agencies sought to change the nomadic Indians into sedentary gardeners and livestock producers, offering•them sure means to secure a stable and adequate supply of •food. Applied anthropology, the application of anthropological in-sights to the solution of Eroblems of planned cultural change, is not a topic dealt with in this book. Yet the author, before he left the Siriono,. and t;tsing his de,tailed knowledge of their speeine way of life, had already begtJn to "experiment with cultute;' to introduce. to them new forms of oehayior caref ully detennined w.ith•re.gard to their already: established patterns 0£ feeling,_ thinking, and action

Applieet anthropology -continued to be one of Holm*berg' s prima lJ' prof ssiorial interests,* and ouring Iiis

•1ong association: :\\tlfh Cornell U*n*iversity, from 194S-

11ntil his early death in 1966 at the age of fifty-six, he WO]). a •wot.Id-wide reputation as a leading practitioQer of the, art. His Cornell program of research and development centered on Peru, where, among other projects, he successfully undertook to transfer initiative and. authority in the I:adian village•of Vicos high in the Andes to the peasantvillagers themselves, divesting them•in a few ye.ars of their centuries-old peona,ge, aha raising their level of living manyfold. He found that indeed the behavior•of these-•peasants could be dhange,d, btit toward what ends, ?nd by what sure me.ans–ends and means which would not bring dam-• aging reaction from within or counteracnon.f rom.without? ln the face of these large questiqns, Holmberg carefully• made the necessary ethical and scientific calculations with•'knowledge,. wisdom, humanity, and mo:rl c9urage. :The Siriono, too, could have used s-uch anthropology to _advantage.

:Finally, this book su:ggests that the tasks of the .field anthropologist mar• i;equire some physical as well as moral bravery some ingenuity as well as wisdom,• some inner stamina as well as interest in humanity.

As we read the modest introduction to this study, we appreciate the difficulties and actual dangers Hplm.be g overcame in esfabilishing• and maintaining contact with thsl elu-si_ve l}.O ds of the long bow as they moved aboμt -fheir most inhospitable territ0ry, a region so isolated that jt was.months before the author learned of his cQnnqy's entry intQ tne Seeond World

War. Holmberg succeeded a<lmirably in his scientifie work among the Siriono; but he also succeeded in maintaining health, energy, and spirits and in surmounting all the varied housekeeping troubles which confront the scholar working alone in a distant comer of the world. Had he failed in these essential tasks, there would have been no skilled observation, no careful records, no thoughtful analysis, and we would not have this report today.

With the young Allan Holmberg as companion and highly competent guide, the reader now embarks on this adventure in modem anthropology. May he not only discover the Siriono but also something of the aims and methods and character of the science of man and of one of its best practitioners.

Surin, Thailand
June 1968
Lauriston Sharp

INTRODUCTION

THE following study was carried out under the auspices of the Social Science ReseaJch Council of which I was a pre-doctoral fellow in 1940–41.It had its origin in 1939, when I was associated with the Cross-Cultura_l Survey (now the Human Relations Area Files, Inc.) at the Institute of Human Relations, Yale University. While studying there, I was privileged to get considerable exposure to the cross-disciplinary approach to the problems of culture and behavior which was being emphasized, at the Institute, especially by Doctors Murdock, Hull, Dollard, Miller, Ford, and Whiting.

As I continued my anthropological studies, it became more and n1ore apparent to me, as to others, that a science of culture and behavior was most apt to arise from the application of techniques, methods, and approaches of several scientific disciplines concerned with human behavior-particularly social anthropology, sociology, psychology, and psychoanalysis-to specific problems. Consequently, in casting around for a subject on which to carry out field work, I began to search for one that would be especially amenable to cross-disciplinary treatment.

The data in slightly different form were presented to the Graduate School of Yale University in partial fulfillment for the degree of D.octor of Philosophy.

While studying at the Institute of Human Relations, I became keenly aware of the significant role played by such basic drives as hunger, thirst, pain, and sex in forming, instilling, and changing habits. Because of the difficulty of studying human behavioI under laboratory conditions, our knowledge about the processes of learning has been derived largely from experimental studies of animals. However, the procedure, successfully employed in psychological experimentation , of depriving animals of food suggested that it might be possible to gain further insight into the relationship between the principles of learning and cultural forms and processes by studying a group of perennially hungry human beings. It was logical to assume that where the conditions of a sparse and insecure food supply exist in human society the frustrations and anxieties centering around the drive of hunger should have significant repercussions on behavior and on cultural forms themselves. Hence, I took as my general problem the investigation of the relation between the economic aspect and other aspects of culture in a society functioning under conditions of a sparse and insecure food supply. More specifically, the problem resolved itself into determining if possible, the effect of intermittent frustration of the hunger drive on such cultural forms as diet, food taboos, eating habits, dreams, antagonisms, magic, religion, and sex relations, and upon such cultural processes as integration, mobility, socialization, education, and change.

In our own society there are many individuals who suffer from lack of food, but one rarely finds hunger as a group phenomenon. For this reason a primitive society, the Siriono of eastern Bolivia, was chosen for study. The Siriono were selected for several reasons. In the first place, they were re*p*orted to be semi-nomadic and to suffer from lack of food. In the second place, they were known to be a functioning societyJ*In the third place, the conditions f*or study •among *t*hem *seemed f avorable, since it was possible to m*ake contact with the rimitive bands roaming inthe forest tlirough an Indian school *w*hich had een esta *s* e by the Bolivian government in 193zjor tliose Siriono wlio had come out of the forest and abandoned aboriginal life.

I left for Bolivia on September 28, 1940, and arrived in the field •on November

28, 1940. Between

November 28, 1940, and May 17, 1941, I worked with informants of various bands of Siriono who had been gathered together in a Bolivian Government Indian School at Casarabe, a kind of mixed villag of Indians and Bolivians, situated about forty miles east of Trinidad, capital of the Province of the Beni. (See map.) At the time of my stay this so-called school had a population of about 325 Indians.

Following my residence in Casarabe, where I became grounded in the Indian language and those aspects of the aboriginal culture that still persisted there, I left in May 1941 to join a band of about 6o Siriono who were living under somewhat more natural conditions near the Rio Blanco on a cacao plantation called Ghiquiguani, which was at that time a kind of branch of the Casarabe school. Upon arriving at Chiquiguani, however, I found that as a result of altercations with the Bolivians, the Indians had dispersed into the forest, so that I encountered no people with whom to work. Consequently, I returned to a ranch near the village of El Carmen. There I was fortunate in meeting an American cattle

rancher, Frederick Park Richards, since deceased, who had resided in the area for many years and who had a number of

Siriono living on his farm and cattle ranch. Through him I was presented to a Bolivian, Don *L*uis Silva Sanchez,-a first-rate bushman, and explorer for the aforementioned school, who offered to be my cgmpanion, and who stayed with me during mast of the time that I lived and wandered with the Sirionp. In company with Silva Iset out in search of the Indians who had dispersed into the forest. After about ten days they were located and agreed to settle on the banks of the Rio Blanco, about two or three days' journey up the river by canoe from the village of El Carmen, at a place which we founded and named Tibaera, the Indian word for asayf pahn, the site being so designated because of the abundance of this tree found there. I spent from July 15 to August 28, 1941, at Tibaera continuing my general cultural and linguistic studies, but under what I regarded as unsatisfactory conditions, since I had previously laid my plans and devoted my energies to acquiring techniques for observing a group of Siriono who had h, d little or no previous contact. Consequently, I suggested to Silva that we go in search of other Indians. Finally, on August 28, 1941, I set out from Tibaera, in company with Silva and parts of two extended families of Indians (21people in all), traveling east and south through the raw bush in the general direction of the Franciscan missions of Guarayos, where we were told by the Indians that we might locate another band which had had little or no previous contact. Af ter eight days of rough travel, much of which involved passing through swamps and through an area which had long been abandoned by the Siriono, we joyously arrived at a section of high ground c*o*ntaining relatively recent remains of a Siriono campsite. My Indian companions told me that this site had been occupied by a small number of Indians who had come there in quest of calabashes about three "moons"earlier.

Inspired by the hope of soon locating a primitive band, we silenced our guns, and lived by hunting with the bow and arrow so as not to frighten any Indians that might be within earshot of a gun. We followed J the rude trails which had been made by the Indians about three months earlier, and after passing many abandoned huts, each one newer than the last,, *we* finally arrived at midday on the eleventh day of march *J* just outside a camp. On the advice of our Indian companions, Silva and I removed most of our clothes, so as not to be too conspicuous in the otherwise naked party-I at least had quite a tan- and leaving behind our guns and all supplies except a couple of baskets of roast peccary meat, which we were saving as a peace gesture, we sandwiched ourselves in between our In• dian guides and made a hasty entrance into the communal hut. The occupants, who were enjoyin.g a midday siesta, were so taken by surprise that we were

r able to start talking to them in their own lartage before they could grasp their weapons or flee. Moreover, as their interest almost immediately settled on the baskets of peccary meat, we felt secure within a few moments' time and sent back for the rest of our supplies.

Once having established contact with such a group,

I had intended to settle down or wander with them for several months, or until I could complete my ' studies. I was forced, however, to abandon this plan when, after being with them for a day or two, I came down with an infection in my eyes of such gravity that I was almost blinded. Fearing that this infection would spread to a point that I might lose my sight, and since I carried no medicines with which to heal

, I decided to set out for the Franciscan missions of 1e Guarayq,s, about eight days' distance on foot, the earest point at which aid could be obtained. Before iaving, however, I consulted with the chief of this ew group (his name was *Aci b*a-e6ko, or Long-arm) nd told him that I planned to return and study the 1anner of life of his people. In the meantime, the Inians in our original party, knowing of my plan, had lread.y convinced the chief and other members of his 1and to return with them to the Rio Blanco and setle down for a while at Tibaera, a plan which suited 11e perfectly. Consequently, in the company of *4* ndians of this new band and Silva, I traveled on foot o Yaguaru, Guarayos. After about two weeks of fine reabnent at the hands of the civilian administrator,

)on Francisco Materna, and the equally hospitable i'ranciscan fathers and nuns, I was able to rejoin the

>and, and we slowly returned to Tibaera, arriving here on October 11, 1941.

Besides what studies I was able to make-0f this band ivhile roaming with them during part of September md October 1941, I continued to live with them at ribaera, except for occasional periods of ten days'

>r two weeks' absence for purposes of curing mysell

)f one tropical malady or another or of refreshing my mental state, until March 1942, when i:ny studies were terminated by news that the United States had become involved inwar three months previously.

As can be readily inferred from the above account of my contacts with the *Siriano,* they were studied under three *diff erent* conditions: Hist, lor about four months, while they were living af"Casarabe under co:gdHJ.ons of *acculturation* and forced lb,or; second, for aho1.:!t two months, whlle' they-were wandering unde::.

aboriginal conditions m the forest; finally, for about six months, while they were living at Tibaera, where aboriginal conditions had not appreciably c*h*anged except f or the mtroduction *of* more agnculture and some iron tools. During the course of my work, I made a co*m*plete ethnological survey of the culture, although my attention was focused primarily on the problem of the sparse and insecure food supply and its relation to the culture. As my knowledge of the language and culture increased, I was constantly formulating, testing, and ref ormulating hypotheses with respect to this problem.

Since Siriano society is a functioning one, three fundamental methods of gathering field data were employed: J.!l_the use of informants, *(2)* the recording of observations, and (3) the co*n*ducting of experiments. The first two methods were followed throughout the course of the work. Experiments, such as the introduction of food plants and animals, were performed during the latter part of the study, although the extensive use of this method was limited by the termination of the research.

The application of the above field methods was facilitated by the use of various techniques, of which the following were the principal ones: (1) the use of the language of the people studied anctT*2'*) the participation of the ethnographer in the *c*ultural life of the tribe.

When possible, data were recorded on the spot in an ethnographic journal, which was supplemented by a record of personal experiences while in the field. *As* the group was small, everyone was used as an informant, and since most of the activities of the Siriono center in but one hut, data on the behavior patterns of almost everyone could be recorded. No paid informants were used, although gifts such as bush knives and beads were given. No Siriono was a willing informant; little information was volunteered, and some was consciously withheld. Had it not been for the fact that I possessed a shotgun and medicines, life with the Indians would have been impossible. By contributing to the food supply and curing the sick, I became enough of an asset to them to be tolerated for the period of my residence.

At the time of leaving the field (lhad not finished my studies) I did not feel satisfied' that I had gained a profound insight into Siriono culture. True, I had studied the language to the extent that I could carry on a fairly lively conversation with the Indians, but the time spent in satisfying my own basic needsacquiring enough food to eat, voiding the omnipresent insect pests, trying to keep a fresh shift of clothes, reducing those mental anxieties that accompany solitude in a hostile world, and obtaining sufficient rest in a fatiguing climate where one is active most of the day-often physically prevented me from keeping as full a record of native life as I might have kept had I been observing more sedentary inf ormants under less trying conditions. However, if I have contributed something to an understanding of -these elusive but rapidly disappearing Indians, I shall feel more than satisfied.

This study would have been impossible without the help of many friends and various institutions. I am deeply indebted to the Social Science Research Council for originally providing the funds to carry out the field work; to Yale University (th.rough the efforts of Dr. Cornelius Osgood) for granting me a Sterling Fellowship to write up the field data; and to the Smithsonian Institution for publication of the manuscript. To my teachers at Yale University I owe a profound debt of gratitude, especially to Dr. G. P. Murdock, who has been a friendly adviser since the beginning of the study. Dr. Murdock spent many hours patiently reading, criticizing, and editing much of the original manuscript. While living

with the Siriono, I also had the benefit of his counsel, together with that of the, late Dr. Bronislaw Malinowski, Dr. Clark Hull, and Dr. John Dollard, all of whom formed an advisory committee at Yale. These gentlemen were largely responsible for developing my interest in certain problems of this researGh, and all of tl1em sent me many stimulating letters of advice and criticism while I was in the field. None of them is responsible for any of its defects.

I wish to• express my deepest appreciation to *Dr.*

.Alf red Metraux , It was he who was largely responsible for cryst*a*Uizing my interest in the South American Indian and for my selection of the Siriono among whom to work.. Dr. Metraux took a keen interest in this study from its inception and gave me constant encouragement while I was in the field. An invaluable service was also rendered by Dr. Wendell C. Bennett, who acted in an advisory capacity when I started to write up my field notes, and by Dr. Clellan S. Ford and Dr. John W. M. Whiting, who made many helpful suggestions and criticisms while I was preparing the manuscript.

While I was in Bolivia, many people helped me in the pursuit of .my studies. I wish to express my thanks especially to Dr. Gustav Otero of La Paz, then Minister of Education, for providing me with a letter of introduction to the Director of the Nucleo Indigenal de Casarabe; to Don Carlos Loayza Beltran, then Director of the Nucleo, and Horacio Salas, then Secretary of the Nucleo, for several months of friendly hospitality; to Senator Napoleon Solares A. of La Paz and Don Adolfo Leigue of Trinidad for comfortably sheltering me in the Casa Suarez inTrinidad, Beni.

My life with the Indians at Tibaera was made possible through the valiant co-operation of Don Luis Silva Sanchez of Santa Cruz de]a Sierra. Nothing I can say will express the gratitude I feel for this fearless Cruzefio who accompanied me for more than six months in the field under the most trying of conditions Had it not been for Silva, in fact, my life with the Siriono under aboriginal conditions would have been unbearable.

I am deeply grateful to the late Frederick Park Richards of El Carmen for his bounteous hospitality and for generously providing me with the food and the mobility without which it would have been impossible to carry out my studies. I also wish to express my thanks to Don Rene Rousseau of Baures and Dr. and Mrs. Lothar Hepner, then of Magdalena, for many days of friendly hospitality and cordial companionship.

Finally, I should like to express my appreciation to the Siriono, who, for the first time in their history, tolerated a nai:ve but inquisitive anthropologist on his first extended stay inthe field.

Chapter 1. SETTING AND PEOPLE

*T*HE *Siriono are a group of semi-nomadi c aborigines* inhabiting an extensive tropical forest area, of abo:9.t. oo miles square, between latitudes 13° and 17° S. and l9ng*i*tude*s 63° and 65° W., in northern and eastern Boliv*ia. The name applied to these Indians is not of their own origin.1 *T*hey *refer to themselves simply a*s *mb£a* or "people.„ But as they have been called Siriono since first contact, and have been thus designated in the literature, I shall use the tenn.

The area of Bolivia inhabited by the Siriono is situated in the poli*tical departments of the Beni and* anta Cruz. It is roughly bounded on the north by the

island f orests, lying just south of the villages of Magdalena, Huacara•e, and Baur-;s;onthe south by the

Franciscan missi *a*ra os• on the east b e Rio an Martin; and on the west, by the Rio Grande and Rio Mamore. Within this *extensive area the* Si_riono have lived and wandered in isolated pockets since the first European contact with them in 16g3.

-Until the 1930s, a eat man Siriono were Ilving in the is*land f orests of the Mojos plains east* of Trini a

1The origin of the name Siriono is unknown. Wegner (1934b) has suggested that it came from the Siriono word *sEri,* meaning "chonta palm/' but there is: no such suffix as *ono* in the Siriono language and the Indians are unacquainted with the name applied to them. nd between the Rio Grande and Ria.P.ir.ay_, but 1.!QW.

••most of these have bec*o*me acculturated and are living under *c*ondi*tions of f o*rced labor on ctatleranches farms, schools, and missions near Trinidad, ag_q_alena, Baures, El Carmen, Guarayos1 and Santa Cruz. Actualfy, almost the only unacculturated Smono extant today are those occupying the forest country southeast of the village of El Carmen. Here, east of 'the banks of the upper Rio Blanco, is located a range of hi1*1s*, locally known as the Cerro *B*lanco, near which wander a few groups of Siriono, w*h*o have as yet been unmolested by white contact. There may also still be game living between the Rio Grande and Bio Piray, but these were.not seen by me.

The region occupied by the Siriono is characterized by a tropical climate with two seasons, the wet and the dry. The former lasts from November to May; the latter from May to November. The annual mean temperature (no records available) runs around 73° F., with extremes of 50° F. during the cold SO\lth winds from Tierra del Fuego and 110° F. during the heat of the average day. During the rainy: season the climate is very hot and oist with rains on the av.erage of every other da . durin the d . seasonthe extrem.e lieat O the day is tempered by cooler nights an occ*asio*nal cold windstorms from the .south. These *surei;*

*as*they are called by the Spanish-speaking natives of the region, '!_l"e usually accompanied rain and a vel"l'._ sudden drop in temperature. The generally last aboutfour days and occur at avera . f_fifeen • s uring the mon s of A ril, Ma une. The prevailing win s, • owever, are from e north. The average :rainf all is about 80 inch er •ear. eographically speaking, tl1e Siriono country is situated in the eastern part of the vast plain, partly forested and partly pampa, lying between the Andes on the west and the Matto Grosso Plateau on the east. From south to north, this plain extends from the hill country north of the Gran Chaco to the low, unexplored hills of Brazil which lie ju st north of the Rio Guapore. Within this area, from the Rio Blanco west to the Rio Mamore, are located the extensive llanos of Mojos dotted with the island forests once occupied by Indian groups. East of the Rio Blanco, however, between the Rio Guapore on the north and the missions of Guarayos on the south, is a vast and dense forest plain which runs for hundreds of miles, and within which the few extant Siriono still wander today. This plain c*o*ntain*s* occasional low ranges of hills, which are part of the same chain that runs into Brazil on the north and into the Chiquitos region of Bolivia on the south.

Except for the few hills, the area generally is flat and only about five hundred feet above sea level. Both the pampas and the forests are characterized by *alturas-high* l*an*ds that do not Hood during the rainy

• eason-and *baj uras-low* lands that do Hood in the riiny seas*o*n. The *alturas* are characterized by a resistant capping of partially decomposed lava, containing a topsoil of coarse sand with occasional outcroppings of igneous rock. In elevation they lie some seventy

.five feet above the *bafuras,* which are made up of a heavy, clayey topsoil and which are flooded during most of the rainy season. The *alturas* of the forest ar considered to be the richest agricultural lands, wliile *t*he ha 'u ras *of the* am a, since water stands in many of them the year ar*o*und, are a y eached and suita-

Je f*o*r *little* more than grazing. -

The outst*a*nding watershed features of the region are its numerous lakes and rivers. Of the former there are some twenty large ones in the Siriono country known to me. Around all of these lakes are extensive flood lands, and stemming from each are brooks or *arroyos* which drain into other lakes or into the principal rivers of the area, the Rio San Martfn, the Rio• San Joaquin, the Rio Negro, the Rio Blanco, Rio Itonamas (San Miguel or San Pablo), and the Rio Machupo. All of these rivers fl.ow into the Guapore

(Itenez) before it joins the Mamore (Madeira) in its route to the Amazon. The southwestern part of the area is drained by the Rio Piray and Rio Grande, which also *How* into the Mamore. Although the rivers are numerous and of good size, the area in general is poorly drained; from the air during the rainy season it has somewhat the appearance of a huge swamp within which there are islands of high ground. All of the rivers follow very capricious courses and are of great age.

The environment, so far as is kµown, contains n0 mineral deposits of note. Gold has b n reported.from the region of the Cerro Blanco, which, might be expected in view of the fact that golc1 is mined in the - Chiquitos region to the south and has been mined in the Cerro San Simon to the north, but no deposits of significance have ever been worked Stone is unknown in Mojos, although a poor grade of igneous rock is found along the Rio Itenez and the Rio Blanco. *n e*entire regian there is no salt.

Pr*esent* in the area, but not in tlie abundance that most people are wont to imagine they exist in tropical forests, are the most common types of Amazon Vally fauna. The principal *m*ammals are the tapir, jaguar, puma, capybara, deer, peccary, paca, coati, agouti, monkey, armadillo, anteater, opossum, otter, and squirrel. Bats, including vampires,_ are a perennial pest.

Land and water fowl are numerous. King of these birds *is* the harpy eagle. Likewise present, and in greater ntµ11bers, are the king vulture and the blaek vulture, which are almost always seen high in the sky• gliding like planes in search of carrion. Gam*e* fowl *are also plentiful,* especially the curassow, guan, wild duck, macaw, toucan, partridge, egret, cormorant, hawk, pelican, plover, kingfisher, trumpeter, spoonbill, and parrot. On the pampa one also frequently encounters the South American otrich and varieties of ibis.

Of the reptiles, crocodiles and tortoises are plentiful. Occasionally one sees a tega o an iguana. *More rarel y ncounte*red are snakes, including the anaconda, the fer-de-lance, tlie *b*ushmaster, the rattler, and •coral snakes.

The rivers and lakes of the area *a*re well stocked. with fish. Among the principal kinds are the palometa, the pacu, the parapatinga, the tucunare, several kinds of catfish, and the stingray. Als•o present but rarely caught is the pirarucu, the largest bony fresh-water fish in the world. Not infrequently seen sporting in the lakes and rivers are schools of fresh-water porpoises, which may come so close as to upset one's canoe when traveling by water. There are few shellfish and molluscs inthese inland waters.

Only -one who has traveled in the region can appi:eciate the myriad forms ,.of 1nseet life that harass the inhabitants. Since a great part •o"f the country is swamp for at least six months of the year, mosquitoes of all kinds (and of which the area is never free) can breed unhampered, and as night falls, these insects, together with gnats and moths, descend upon one by the thousands. During the day, when these pests retire to the swamps and the depths of the forest, their place is taken by innumerable varieties of deer flies and stinging wasps. When traveling by water during the day, one is also perennially pestered by tiny flies which settle on the uncovered parts of one's body by the hundreds and leave minute welts of blood where they sting.

No less molesting are the ants, most of which are stinging varieties. The traveler in the forest soon learns what kinds to avoid. Especially unpleasant are those which inhabit the tree called palo santo, the sting of a few of which will leave one with a fever, and the tuconder an ant over a half inch in length whose bite causes partial paralysis for an hour or two. In addition to the ants, mosquitoes, and flies, there are scorpions and .spiders, whose bites may also cause partial paralysis and for whose presence one must be continually on the lookout, and sweat bees, who drive the perspiring traveler to a fury in trying to escape them. Some mention should also be made of the wood ticks, which range in size from a pin point to a fingernail. During the dry season as many as a hundred may drop from a disturbed leaf onto aperson as he passes by. One of the most common pastimes of the Indian children is picking off wood ticks from returning hunters.

The flora, like the fauna, is typical of the Amazon

River Valley. The forests may be _characterized espe: c*i*al*ly by an a6undance of . palms, a*mqng which the principal •varieties are the motacu asa i, chonta, totai:*s*amuque, and cusi. A l of these _palms yield an edible *h*eart and *nuts* or fruits, which constitute an important part of the diet of the Indians. No less important in this respect •are other fruit trees, particularly the pacobilla, the coquino, the pacay, and the aguai.

Of the trees not producing fruit few are used by the

Siriano. Anexception is the *a*mbaibo, the fiber of whose bark is twined into *s*tring out *o*f which the hammocks and bowstrings are made. Abundant in the area, however, are such commo*n* Amazon Valley trees as mahogany, conduru, cedar, bamboo, massaranduba, itauba, mapajo, bibosi, palo santo, ocho6, and rubber. Along some of the rivers there are also stands of chuchi6 (reed }, from which the Siriono make their arrow shafts.

The pampa chiefly supports a grassy vegetation that is able to withstand extremes of wetness and dryness. Rows of pahn are sometimes encountered on the pampa, but more of ten than not these plains are barren of trees as far as the eye can see.

Physical Type

Because of the lack of accurate instruments while I was in the field, I was unable to record exact physical measurements of the Siriano. Roughly speaking however, it can be said that the *m*en average about five feet four inches in height; the women, about five feet two inches. The cephalic index falls within the range of brachycephaly to mesocephaly; *t*he nasal index is deHnitely p*l*afyrrhine. -

-Except in tlie cases of o6vi*o*us crosses (the area has not lacked travelers and monks, some of whom may have left tb:eir marks) skin *color is* very dark–almost Negroid. The same may be said for the hair, which is not only jet black, but coarse and straight as well. The• eyes are a deep brown in color; the Mongolian fold

•'is *marked.* •

Pilosity is not pronounced but is greater than in most Indian groups. Some of the men have welldevelopd beards, and all have a full growth of pubic hair, with a lesser growth of *a*xi*11*ary hair. Women show marked diHerences with respect to pubic hair; some have heavy growths while others have almost none at all.

*H*ead hair is extremely thick on both sexes and grows to a very low line on the forehead. Children are *a*lway*s born with a full head of thick hair,* ana the e*x*tension of the hairline to a oint ve low on the orehead is also very striking at birth.

*Exc*ept *for a very poor development of the* lower legs, the Siriono are well-constructed physical spe imens. Ontogenetically, they seem to fall within the normal human range. The men demonstrate a marked growth of the shoulder muscles as a result of pulling the bow; the women tend strongly to distended abdomens and pendant breasts, especially after childbirth. The protruding stomachs frequently found in children are almost always due to parasites.

As a result of the habit of picking up objects between the big and the second toe, most men and women possess well-developed prehensile toes. *One* rarely sees an Indian retrieve anythi}!g from the ground with *his hands that he is able to ;eick up* his feet.

An unusual physical characteristic among the Siriono, one which might almost be called a mutation, is

.the small hereditary marks *which characterize the* backs *of their ears.* These marks or depressions in the *skin)* which appear at birth, look as if a little piece of flesh had been cut out here and there.. If a Siriono were in doubt as to whether he were talltj.ng to one of his countrymen he would need only to look at the backs of his ears to identify him. These marks do not appear in any of the crosses I have seen. Most of the Indians with whom I talked, however, were only vaguely conscious of this characteristic and had no explanation for it.

1nother unusual *f eature of the Siriono is the high* _ incidence of clubfootedness. This trait appears in about 15 per cent of the population. At some time in Siriano history this recessive character has appeared and -persisted because of the highly inbred character of the group.

Chapter II. HISTORY

THE Siriono are an anomaly in eastern Bolivia. Widely scattered in isolated pockets of forest land, with a culture strikingly backward in contrast to that of their neighbors, they are probably a remnant of an ancient population that was exterminated, absorbed, er engulfed by more civilized invaders. 'I'Qeir languag , however, is Tupian2 elsewhere spokenby tribe.s .2La more complex cul,:tur but here represented onJy by tliemselves *a*nd *the Guarayos, whose dialects are* closely related. Traditions of friendship suggest that these peoples may once have been linked by a now obscure bond.

With the rest of their neighbors the Siriono show few affinities, cultural or linguistic. To the north and west live the warlike More, with whom they havehad no contact. To the west are settled the Mojo, with whom they likewise have had little intercourse. Only in recent times have they associated with the Baute and ltonama, who reside to the north and who have been acculturated since the days of the Jesuits. Whenever possible they avoid clashes with the so-called Yanaigua, who wander to the south and who occasionally raid them, killing their men and stealing their women and children.

It is probable that the Siriono are of Guarani origin, that they have gradually been pushed northward iru:o the sparsely inhabited forests they now occupy, aQd that *in the course of their migrations they have lost* much of their *o*riginal culture. There is no evidence, cultural or linguistic, however, to support the theory held by Nordenskiold (1911, pp. 1&-17) that they represent a substratum of culture which once existed widely in the area they now occupy. The intangible aspects of Siriono history still ,await reconstruction.

Our previous knowledge of the Siriono, which *is* very scanty, dates from 16g3, when they were first seen for a few days by Father Cyprian Barrace.2 At that time the Siriono were occupying the deep forests in the southern part of the same region which they inhabit today. After first contact, and before their expulsion in 1767, the Jesuits probab1y made several attempts to missionize them. At any rate, in 1765 a few Siriono were coaxed into the mission of Buena Vista and were later transferred to the mission of Santa Rosa on the Rio Guapore. So far as we know, no other attempt was made to missionize them until comparatively recent times. Of th-ese endeavors most have faile9„ not so much because of warlikenes s, since this chatacter has been falsely attributed to the Siriono,

2 All that is recorded of Father Barrace's contact with the Siriono is the following:

"It was not long before the holy man discovered another nation. Af ter traveling some days he found himseH amidst a people called the *Cirionians.* The instant these barbarians perceived the Father, they took up their arrows and prepared t_o shoot both at him and at the converts in his company, but Father Cyprian advanced up to them with so kind an aspect that their arrows dropped from their hands. He made some stay with them; and, by visitipg their various settlements,

discovered another nation called the *GuarayatW'* (*Lettres Edifiantes* • . . 1781, Vol. 8, p. 105).

but because of their sensitivity to maltreatment and their adherence to nomadic life.

In 1927, decimated by smallpox and influenza, a

small group of Siriono was settled at the Franciscan Mission of Santa Maria near the Rio San Miguel. This venture did not result in success. In 1941I met many Indians in the forests between Tibaera and Yaguaru who had formerly been living in Santa Maria but who had reverted to a nomadic existence because of what they regarded as .unsatisfactory conditions of life at the mission. In 1935 American evangelists founded a mission for the Siriono at the site of an old Mojo mound called Ibiato, some sixty miles east of T'rinidad. By 1940 this mission had a population of about 60 Indians, but could also not be called a successful undertking for lack of funds and trained personnel. The same may be said for the Bolivian Government Indian School established at Casarabe-fifty miles east of Trinidad-in 1937. However noble in its purpose, the function of this school ultimately resulted in the personal exploitation of the Indians by the staff so that through maltreatment, disease, and death the number of Siriono was reduced from more than 300 in 1940 to less than 150 in 1945.

Of the remaining Siriono who have abandoned

aboriginal life, a great many are living today under *patrones* on cattle ranches and farms along the..Rio Blanco, Rio Grande, Rio Mamore, and Rio San Miguel; others, who were captured as children

in the forests, are now acting as servants in the villages of Magdalena, El Carmen, Huacaraje, and Baures. As to the distribution of the Siriono south and southwest of Guarayos, I have no information because I never visited this area and the literature tells us nothing. How-

ever, the total population of the Siriono today is probably about two thousand.

lcide d'Oibi the reat French sc*i*entist and explorer, was the first writer o any importance to mention the Siriono. *J,n 1 825* he had an opportunity to study a few captured Siriono at Bibosi, a mission north of Santa Cruz de la Sierra. Since d'Orbigny's remarks on the Siriono were the first of any significance ever to be published, I quote them *inextenso:*

Less numerous than the Guarayos, the Siriono live in the heart of dark forests which separate the Rio Grande fro:q,. the Rio Piray, between Santa Cruz de la Sierra and the Province of Moxos; from 17° to 18°

south latitude and about 68° longitude westof Paris. The Siriono• inhabit a large area although, according to many Gaptives from this tribe whom we have seen at

the Mission of Bibosi, near Santa Cruz, their number hardly reaches 1000 individuals.

No historian has spoken of them; their name appears only in some old Jesuit letters. According to the infor: mation we obtained in the *c*ountry, the Siriono are perhaps the r.emains of the ancient Chlriguanos, haVU!g since the conquest always inhabited the se forests.

Attacked *b*y the Inca Yupaugui about *t*he fifteenth century, they were forced at the beginning of the sixteenth century to flee from the Guaranis of Paraguay, who captured their settlements and, according to historians, annihilated them. _Be that as it may, it is possible that the Siriono, well before the Chiriguanos, had come from the southeast and had migrated into areas far distant from the cradle of the Guarani nation.

The Siriono live under the same conditions as the Guarayos and have about the same color, stature, and fine proportions, judging from the few we have seen. In general, their f eatures are the same, but they have a more savage appearance, a fearful and cold expression which *is* never encountered among the Guarayos. Since

they have the custom of depilating their hair we cannot say whether they have as bushy a beard as the Guarayos.

We have been assured that their language is the Guarani, but corrupted to the extent that they cannot understand the Chiriguanos perf ectly. *As* to their personality, it differs essentially from that of the Guarayos; they are so savage and bold so sh•ongly to their primitive independence that they have never wanted to have contact with Christians. No one has beeu able to approach them unarmed. Their forebearers were gentle and affable, but these are less communicative. They live in scattered tribes which wander deep into the most impenetrable forests and live only by hunting. They build rude huts forroed of boughs and know no other comf orts of life; everything indicates that they live in the most savage state. They have no other industry than the making of weapons. These consist of bows eight feet long and arrows even longer, which they most often use seaed, both the feet and hands being employed to shoot with great force; thus they are obliged to hunt only big game. Both sexes go entirely nude, with no clothing to bmden them. They do not paint their bodies and wear no ornaments. On their trips they do not use canoes. *H* they have a river to cross they cut liana which they attach to a tree or to stakes placed for that purpose on the banks of the river. They wind the liana around tree trunks resting in the water,. thus forming a kind of bridge which the women cling to in crossing with their children. Whenever they get the opportunity they attack the canoes of the Moxos and kill the rowers to obtain axes or other tools. This is all we have learned about this tribe, without doubt the most savage of the nation [D'Orbigny, 1839, trans., pp. 341-44].

Jose Cardus was the next writer of any significance to deal with the Siriono. Inhis book on the Franciscan missions of eastern Bolivia (Cardus, 1886, pp. 27g-84)

he devoted about five pages to a description of the condition and culture of the Siriono in the latter part of the nineteenth century. Following Cardus, Nordenskiold (1911, pp. 16-17) interviewed two Siriono on his 19C>B-i} expedition to eastern Bolivia, and on the strength of this published a two-page article about them which, however, contains very scanty data. In 1910 Theodor Herzog (1910, pp. 136-38, 194-200) published a short account of the geography of the

area whieh also embodies a few notes on the Indians. In 1928 Eduard Radwan (1929, pp. 291-96) wrote a brief description of Siriono culture which deals prima.. rily with their contacts with the Franciscan fathers at Santa Marfa.

Some yars ago, considerable stir was caused in the anthropological world by a publication of a series of articles and books by Richard Wegner (1928, pp. 36984; 1931; 1932, pp. 321-40; 1934b, pp. 2-34) on a

month's journey to the Siriano country-to the Siriono

between the Rio Piray and Rio Grande and to those of the Mission of Santa Marfa. In his various articles and books Wegner claimed to have discovered a primitive group of Siriano which he called Qurufigu'a, who possessed no language but whistling. Although this statement is patently absurd-I too have been with groups of Siriono who were uncommunicative for long periods of time-it should be pointed out that Wegner's observations on the material culture, although not outstanding, are fairly accurate. However, his statements about language (or its lack), group classification, religion, and other subjects do not check with my findings, nor with those of the Franciscan monk Anselm Schermair (1934, pp. 519-21), who has written a brief article refuting the claims made by Wegner. My own data substantially agree with those of

Padre Schermair, in so far as he has published them. For many years this Franciscan father has been collecting a vocabulary of the Siriono language, but his works have never been published. They will be awaited with great interest.3

In 1937 Stig Ryden spent three weeks collecting ethnological specimens and interviewing Indians at Casarabe. His results were published in 1941. Although the descriptions of his material collections are accurate enough, Ryden's statements about the nonmaterial aspects of culture are mostly inaccurate because he was probably deceived by, staff members of the school at Casarabe into recording false information about the Indians. Moreover, lacking adequate primary data, Ryden padded his work with irrelevant speculations and comparisons which are largely eaningless for the reconstruction of Siriqno history.

Finally, it should be mentioned that most of the extant data on the Siriano were admirably summed up by Alfred Metraux (1942, pp. 110-14).

8 Editors note: Padre Schermair's work was published in 1.958

and is included in the bibliography.

Chapter III. TECHNOLOGY

ToCHNOLOOICALLY speaking, the Siriono can be classified with the most culturally backward peoples of the world. They subsist with a bare minimum of material apparatus. *Being semi-nomadic, they do not burden* themselves with material objects that might hamper mobility. lh fact, apart fro*m* the *h*ammocks they sleep in and the weapons and tools they hunt and gather with, they rarely carry anything with them. What few other material objects they make and use are generally hastily fashioned at the site of occupancy. A brief account of the principal technological processes and manuf actqred articles with their uses follows.

Fire

Fire-making is a lost art among the Siriono with whom I lived. I was told by my older informants that fire (*tata)* used to be made by twirling a stick between the hands, but not once did I see it generated in this fashion. Fire is carried from camp to camp in a brand consisting of a spadix of a palm. This spongylike wood holds fire for long periods of time. When the band is traveling, at least one woman from every extended family carries fire along. I have even seen women swimming rivers with a firebrand, holding it

above the water in one hand while paddling with the other.

In the hut every family has its own fire on the

ground by the side of the hammock. Dried leaves of motacu palm are used to bring a fire to a blaze. Any dried or rotten wood serves as firewood (*ndea) .* The logs are placed on the ground like the spokes of a wheel, the fire being made in the part corresponding to the hub. As the ends of the logs bum down they are pushed inward. Cooking pots are placed directly on the logs. No hearths are employed.

Glue Manuf acture

The onl • native chemical"" indus is *the.*-making *of glue from eeswax (* ir£*ti) .* T is roduct is used tensively in arrow-makiI;tg. The crude . eeswax collected from the hive is put in a pot, mixed with water, and brought to a boil. While it is cooking, the dirt and other impurities are removed. The wax is then cooled and coagulated into balls about the size of a baseball. When desired for use, the wax is heated and smeared over the parts to be glued. It is generally but not always the men who prepare and refine beeswax."

Textile Industries

String and rope are twined by the women from the inner bark of the ambaibo trees. The tree is usually cut down by the men, who remove the outer bark in strips, pull the inner bark from them, and carry this back to camp. It is then thoroughly chewed by the women and placed on a stick over the fire to dry. The resulting shreds are twined into bowstrings, hammock strings, hammock ropes, and baby slings.

One of the most time-consumin acti*vitie*s of the w-omen IS e spinning of cotton thread (*n£nfu).* The spindle is made by the men from chonta palm. It is planed into shape with a mussel shell. It is more or less circular in cross section and about a hall inch in diameter at the middle; it is pointed at both ends and is about three feet long. The whorl consists of a disc of wood or baked clay which is put on the spindle from the bottom end.

The women prepare the cotton for spinning. The balls of cotton are first collected from the plant and then pulled apart and flattened into paper-thin sheets about six inches square from which the impurities are picked out. The cotton is then ready for spinning. During this process the woman is seated, usually in the hammock. The squares of unspun cotton rest on one thigh (a-distaff is not employed) and the spindle on the other, with the whorl end resting on the ground at an angle of about 60°. The woman pulls a threadlike line of cotton from one of her squares, attaches it to the spindle, and spins it into thread by rolling the spindle on the thigh from the hip to the knee. As the thread accumulates, it is rolled around the bottom of the spindle. Cotton thread is employed extensively in arrow-making, for wrist guards, in twining baby slings, and in decorating the body on festive occasions. It is generally coated with uruku, a red paint made from the seeds of *Bixa orellana.*

The hammock (*kf,za)* is the principal article of furniture in every Siriono hut. Hammocks are made by the women from string twined from bark fibers of the ambaibo tree and are very durable, lasting

several years with the roughest treatment. In making a hammock a woman first digs two holes in the ground with her digging stick, as far apart as the length of the hammock is to be. Two posts about five or six feet long are then planted in the holes. Tl1e woman ties one end of her ball of strfng, previously twined, to the bottom of the post on her right, passes the . string around the post to her left d back on the far side around the post on her right, and so on, contin$g these winds, which are about one fourth Qf an inch apart, up the poles µntil she •calculates that the desired Width of the haɥimock has be•ep. reached. The resulting w:ai;p strings .form two series of parallel li:.nes, one at the fi:ont and the other at the.back of the posts. The weft strings are made of the same material as the warp•strings, but are nner-twined than the latter. They are applied from bottom to top. The weaver places a weft string arouncl the Bottom warp string at the front 'of th posf:s and midwy btween them. She holds tne:. wa string with lier left hai\d ' d pulls both ends of the weft string tightty with the other hand to form two weft strands of .equal lengthi She tlien takes the under strand in• her .left hanq, crosses *it* . over the ,upper strand which is held in her right hand, and then transle each strand.to the opposite hand, after which she pulls the > twist tightJy ,0around the warp string! She then kes the first back warp, string, pulls it .over until it rests on •the twist formed aroɥnd the Brst front warp string> and gives the• weft strands a second twist. She continues alternately to gather up the warp strjngs from f-rol)t to bac until all of them are held in place by a weft string, the ends of which are finally tied into a sguare knot at the top. of the hammock. Usually about a dozen weft strings, placed about six inches ayart, suffice for a hammpck. After they h3:ve been flpplied, ambaibo park fil.>er is bound around the hammock about £our iJ}Qne.s 'from each end,and it is then readyJor hangi!!g,

Hammocks vary in size, but one shar.ed by husband and wife will be about six ,feet in length and apout four feet in width. It usually takes a woman a full day to make a hamm0ck, once the string has been prepared. Jammocks are almost always ciɥrled along on xpeditions or hunting trips,. but in casea person gets , caugfit •overnight in the forest without his .hammock, arude one is sometimes fashioned of liana in the man ner describe*d* above. '

Baby slings• *(erenilq)* are twined by the women in exactly the same way as •hmmocks, the only difference being that they are more often made of cotton than of bark-Sher string and that all the front warp strings are qeld together by one seriesof weft strings while those at the back are held. together by another. During pregnancy a woman ,usually twines a new sling so as to have it ready when her infant is born, for a new sling is made. for every child. Slings are about three feet lonand two feet wide•

.Baskets *('inaku)* are plain and e made• by the techniques of checkerwork _ and twilling. They may be classified into two typs: those hastily constructed in the forest for carcying in game, wild fruits, •or•o;ther products, and somewhat better ones woven for the storing of articles in the house. The former .are always made of th green leaves of the mota-cu palm (by either the. men or the women) and are thrown away as soon as their purpose has been served; the latter are •more carefully wov.en (almost always by the women) of the.ripe leaves of the heart of the motaeu palm, and are a more or less. permanent feature of every •Siriono hut.Special baskets are made for storing such things as feather ornaments•, pipes, cotton and bark-fiber string, necklaces, calabashe, beeswax, and feathers for arrows and ornaments.When the band is on the march, the various small baskets are .placed in one large basket and are thus transported to the next camping spot.

In addition to baskets, women occasionally weave mats from the heart leaves of the motacu palm. These are used to sit on, to roll out coils•of clay for potmaking, and to wrap the bodies of the dead. Fire fans are also woven by the women. The Siriono do not manuf acture any type of barkeloth, nor do they use hides for *a*nything but food. Feathers are applied to arrows and are used to make ornaments for decorating the hair, but featherwork as an art is not practiced.

Ceramics

The pottery *i*ndustry is poorly 8eveloped, but rude, pla1n pots (*neo)* are occas onally made by the women.

Since more food is broiled or roasted than boiled or steamed a family *r*arely possessesmore than one pot. The banks of rivers serve as the principal source of clay. It is dug out by the women with the digging

stick and carried home in baskets. In making a pot, the lumps Qf clay are first mixed, with water and with carbonized seeds of the motacu palm, which constitute the temper. The resulting mixture is made into balls, from which coils for the sides of the pot are rolled out, and into discs, from which the base of a pot may be formed.

The base is molded, either out of a disc of clay (in case the bott9m of the pot is to be rounded) or out of a small coil (in case it is to be more pointed). It is molded entirely with the fingers, and when finished is placed in a slight depression in the ground into which asheshave been put to serve as a cushion.

The rest of the pot is constructed by the coiling technique. After the base has been molded, the coils are rolled out one by one on a mat of motacu palm and applied in turn. In making a pot a woman works the coils of clay together with her fingers, on which she frequently spits. In addition, she employs the convex surface of a mussel shell called *h£tai* to smooth out the clay. After one or two eoils have been added to the base of the pot, it -is generally left standing to dry for a day before others are added. Inthis way the pot does not lose shape by having too much weight at the top when the clay is wet. Thus several days commonly elapse before a pot is complete. Once finished, it is left to dry in the shade for about two days before it is baked.

Pots are baked in the hot ashes of an open fire. As each section of a pot hardens, it is turned slightly so as to bake another. Sometimes a pot is covered with green boughs and chips while it is baking to maintain an even heat. Since the method of baking is very crude, pots are very fragile and must be handled with great care. They vary in si,ze from about five to ten inches in diameter at the top and from about eight to fourteen inches in height.

Pipes (*keakwa) ,* like pots, are made from a mixture of clay and carbonized seeds of the motacu palm. The entire pipe, including the stem, is molded from a single disc of clay, the fingers alone being used. As a woman molds the bowl, she leaves a small lump of clay at the bottom from which the stem is later fasbioned. After finishing the bowl, she fashions this lump into a conelike shape and then inserts a palm straw into the bowl to make the hole for the stem. She then molds the lump of clay bit by bit around the straw until the stem of the pipe is of the desired length, leaving a little decorative projection at the bottom of the bowl which iscalled *eka* or teat.

After a pipe has been molded it is dried in the open air for a couple of days and then_ baked in the coals of a fire like a pot. Inbaking, the straw in the stem is burned out, leaving a hole through which to suck the pi•pe.

Circular spindle whorls are sometimes mad.e by women from a small disc of clay hardened in the open fire like a pi or a pot. Before they are baked they are fitted onto the spindle so that the hole in the whorl will be of proper size.

Utensils _

Calabashes (yab 6ki) are prepared as drinking vessels in the following manner. A round hole about an. inch in diameter is cut in the top :of a gourd with the gouging tool A small stick is thn inserted, and the seeds are loosened and shaken out. The calabash is then washed on the inside and dried slowly in the fire, water being squirted on the outside from time to time to keep it from burning. Calabashes, though used primarily as-drinking vessels, e also employed for making mead and for storig tobacco, feather ornaments, and animal teeth.

When calabashes are scarce, hoHow sections of bamboo are sometimes used as drinking vessels, to store wild honey., or to make mead. They are simply cut to the length desired.

Mortars (*mbua)* are somemnes hollowed out of fallen logs that lie near camp, but sections of a log are never cut especially for this purpose; that is, a section of a log is not cut, set up;and hollowed out on the end for use as a mortar To make a mortar, a hole is made inthe side of a fallen trunk with fire, the charcoal being chipped out with a digging stick, which also serves as the pestle. Mortars are used principally for grinding corn for' food and mead, and for grinding.burned motacu seeds for temper for pots" They are never carried from camp to camp.

No spoons, plates, bowls, or bags are manuf actured by the Siriono. Pots and baskets have already been described.

Tools

The digging stick (*s£ri*) -the onl agricultural tool

-is *m*a *e n f*rom chonta palm. A er a section of wo d has been removed from e tree, it is p aned to the desired shape with a mo use s e ca ed u*rukwa.* The digging stick is about three feet in lenITTh, three inches in width, and about an inch in thickn.ess. The bottom end is sharpened so as to make it a more effective tool. The digging stick is.used principally in planting and tilling, in grindin•g com, in digging out clay for pots, and in extracting palm cabbage and honey.

The Sirion_o construct a gouging tool by hafting an incisor tooth of an agot1ti or paca-onto a femur of a howler monkey. This tool *is* employed principally to gouge out the nock in the reinforcing plug which is inserted in the feathered end of the arrow. In using the tool the handle is grasped in the right hand with the tooth down. The plug is held in the left hand, and the tool is worked back and forth over it until a groove large enough to hold the bowstring is made. This tool is also employed in making holes -in the root ends of the animal teeth from which necklaces are strung.

Some mention should also be made of the use ,of a mollusc she}L called *urukwa,* and a mussel shell, called *hitai,* as tools.The former is used by the men as a plane in making digging sticks, spindles,.and bows, while the latter is employed by the women to smooth out the clay when making pots. The manclible (with teeth)

0£ the palometa 'Hsh also serves as a tool;being employed to seVcer tlie aftershafts ef the feath&rs glued on arrows"' An.y piece of oantbea serves for a knife but no work is don-e in bone, liorn, shell, st6ne, or m-etal. European axes and achetes have be; n intt.oduced to tlio e Qc;llds which have had ontaet,but under aboriginal conditions European tools are tarely eiloountered.

VV:eapons

Thee bow *(nguuf }* - and arrow are tfie only -weapo)ls. m.anufaetttred or l!sed by the Sitionq. Ever,:y adult male pgssesses a hnw and arrows•-wliielthe makeS:hirri:

-self . So impoa,nt are these w.eap9ns"µi t When not hurttiag, a man, if busy, is most {reguȼ.ntly (ibse.ryd making a new arx@w *ot* rep.airing aa old -oe: broken on the lasthunt;A man's•b'Gw andi\a• ti:ows,ijn faet, a,e. His inseparable companions. When 'he,is asle.ep 1n th honse they rest, •upright a.gaint the _fpame 'P.ole to iil–fhe•£orest he is invaPiablYJ seen with his bow •and a b;undle of anows. Qver ms right"°r: left shoulcler„-.Jioints

•faeing ahead;in quest o{game. -

Tue wooa from• wlileh tli: B<?ws are made is a variety of chonta palm, called.*•s£1:i.* This_ tree;: when mature, is about. twele inches in diameter aa8 has a layer about two inches thick of very Hard Black•W@f.tel just undemeath the bark. It is,..,frem this lay.er that the• bow is c0nstn;tecl.4lthough the ma: erial is :i:ela:tiv.ely abundant in th e.nvironment" before maJdng. •a new bow a hunter• w.ill sea1-:ch for sQ.ffie tin.le to locafe .a chonta tree which has the appearance•,of being, of proper matunty and bar;dness. ft;is a,.rare•ttee"-thathas just the. right qualities. "Fhe :wood must be nrni - nd resilient and must withstani the. niaximurp -pµlling strength ofthe hunter:w.ithout breaking„ Fre,quently

I'. 1{ae seen a man spend a ceuplec of days ,in the cnnsti:ucti(lll of a bow only to have it' np on the first Nttll. -

-.A:fter a suit' bI .ti: e has ben, sighted •i _is felled. I• hay_eo nev:er seen this done ot1ier than with ;l:Q. axe, but on_e *qf* my ;oldest Mon)lants told me that_ he had kttowp. cho.nta ,pa,hns• *t* be £elle,cl J>y building a -Jire. 8;ga{nst the ttu:n.'k until the, hard' layer had bt::en-burned through an[tlien pushing,.the free over:.'When a tree has .l>een felled„_ a -seetio:n of the •circumference of the tmnk, aboµt fortr ip.enes wicle and as _long as: the liqpt:er W;#'lit,$ his bo-t0 lie, is cut Oi!f Oilier smaller pieces_*9£* 'Gfi*())l*ta mar' \s('.),_ E.e, removed at tliis. time.

.,as tlustmiterial iSs liktwiie in:clis_p.e»sabJ in, th e,on

•Qnce lhe; material has 'been taen out, work oi:i the construction of •tlie How 0.egins ab:nest -at once, be.fore t}:te woad tlrie,§ u *Bbw:s* are plain anc:t are.rpde .of :a si g stawe.•Jlle .ma)i:og of a bow is a J B0tjc,us . :i;ocs-s„. if is as .fo e . :4aJ,mo;st •entirelyoy-using mollusc

n ls, e,alle•"'f":fruk a, . to ,plane ihe, wood dq: n:-l nto lusc shells. rhe edges around the hole aJ1e. then

WO:Fk(;'O •d(;);WJ'wi ard with_ the grain, -and •the S ,eefior1 of w0od isgradualli•planed tathe -desired shap e. lf •a nian p§.Se§.ses-a maciheter lltl ma.-first use this•to :give the •bow•its apprqximate shape ,by roughly t p.erin,g the hpr:ns„'but the fini&hing is always done. with the:sheil t •averj:•fflle dai.)ger •of -s12litt Jag the•woo.a.Jn 11lani g doW:Jll a,bOW"it is held securely an,the graɹn:d' the rfig,and -the (:ond toe. betw,eel}

In crosssec;tiQnl>o_w *is,*rouglily Q¥al in sha::ge, ,being -ah.out tw0-, inches •in "d-iam ter i:n the •m;idd e ancl e:gradually,..taper,d .t a ci;oss section *oJ* about a• quarter of an inch at the horns. The inner side of the hard layer of the tree forms the belly of the bow, while the bark side forms its back. After a bow has been worked to the desired shape, a small amount of bark-fiber from the ambaibo tree is wrapped around each horn to keep the string from slipping toward the limbs. The horns of the bow are not notched to hold the string. The bowstring is twined by the women of ambaibo bark-fiber. It is applied as follows. A pertnanent loop, which will just fit over one horn of the bow, is tied in one end of the string. A half hitch on the other end of the string is placed over the opposite horn and the string is gradually tightened by pulling on the hitch while bending the bow. This is done by resting what will be the top horn of the bow on the ground at an angle and grasping the other horn in the right hand; the lef t hand is thus left free to manipulate the string which is to be tightened. The inside of the left knee is then placed in the center of the belly of the bow, the foot resting on the back further down. By exerting pressure between the right arm, the knee, and the foot, the bow is bent to the desired degree, and the string is pulled tight by the left hand. To keep it tight a second half hitch is thrown over the first, above the fiber lashing on the horn. The remainder of the bowstring is pulled up the bow to just below the center and wound back around it and over the section of the string which runs up the limb. The end of the string is seC1.1red by placing it under a couple of the turns and pulling it tight. The bow is then ready for drawing.

If a hunter is right-handed, as are most of the Siriono, the bow is drawn in the following manner. It is grasped in the middle with the left hand. Because of its great length, the top horn is tilted at an angle of about 30° to the right of perpendicular, so that the bottom horn does not rest on the ground. The hunter spaces his feet from two to three feet apart, the left foot, of course, always being placed forward.

The secondary release is employed in drawing the bow. The arrow is held between the thumb and first finger of the right hand; the re*m*aining fingers assist in drawing the string. The left arm is held rigid, and the arrow shaft slides between the thumb and first finger on the side of the bow to the left of the belly. The bow is drawn to a maximum distance allowed by the arms. As the bowstring passes his bead, the hunter sights along the arrow to aim. He withdraws his head just bef ore releasing the arrow, and the string ffies by his face. IIe always wears a wrist guard of cotton string to avoid damaging his skin.

The stance indicated above is essentially the same whether one is shooting in a tree, straight ahead, or from a -tree into water. If a hunter is left-handed, the process of drawing the bow is exactly the same, but reversed.

A new bow is always drawn gradually at first and is sometimes left for one night with the string taut before it is used, so as to give the wood a chance to expand gradually. A bow which is in service, however, is alwaysunstrung following each dayshunt.

After a new bow is made it needs little attention, except for a change of string, until it breaks or has lost its resiliency. The life of a sturdy bow may be,..!!. year or ,me, de_pending upon ho'Y_ 9ften it is used.

Ahunter does not make spare bows. Only when his bow breaks or when it has been used so much that it has lost its life does he make a new one. Occasionally, when a hunter notices that his bow is drying out, he places it in water for several nights until its proper resiliency is restored.

Bows vary in size depending upon the hunter, but all are long, perhaps the longest in the world. O*n* the

_avera e they range between seven and nine feet in Jength, althou I have seen one that measured nine feet seven *in*ches. The Indians themselves have-no eX: • planation of why they use such a long bow, other than to say they were taught to do so by their fathers. They assert, however, that a short bow is no good. The explanation is probably to be sought in the manner in which the Siriono use the bow in shooting.. It is bent to the maximum distance allc>wed by the arms before the arrow is released. If a short bow were used, it is likely that the wood could not withstand the strain of the pull or that the hunter would not have swllcient strength to bend it to the desired degree.

Although arrows, like bows, vary in size, only two general types are made: one, called *uba,* with a chonta head *c*ontaining a lashed barb; the other called *takwa,* with a lanceolate bamboo head but no barbs. The former type is used almost exclusively for shooting smaller game in the trees, while the bamboo-headed arrow is reserved for killing the larger game on the ground. Chonta-headed arrows average from seven to nine feet in length; bamboo-headed arrows, from eight to ten feet. The arrows used b the Sirlono are probably longer than those used by any other known people in the world.

Except in the case of an emergncy or a shortage of material, arrow shafts (*ekiia)* are always made of reed (*Gynerium saccharoides) .* The plant is found in abundance along the banks of the rivers and at some points inland, but is only suitable for use in arrowmaking for about two months during the rainy season

-in March and in April. Consequently, a whole year's supply of not less than thirty reeds is usually harvested during these months. If a man runs out of reeds before the next season comes around, a species of bamboo may be substituted, but this material is considered inferior since it makes an inaccurate arrow.

Like bow-making, arrow-making is exclusively a task of the men, and, there being no specialists in this occupation, each man makes his own arrows. The reeds are first cut near the butt end and then cured. This *is* usually done by drying them gradually in the sun fot about four days, but it may be hastened by the use_ of fire. Before an arrow is made, the shaf t must be straight and dry. While the reeds are curing, a man prepares the other materials needed for the construction of an arrow: feathers, chonta or bamboo heads beeswax, etc. Consequently, when the shafts are straight and dry, all materials are ready for the construction of an arrow.

A cl1onta..headed arrow is made in the following way. A shank of chonta wood about eighteen inches in length, pointed at both ends, and of a diameter so as just to fit the hollow distal end of the reed, is fashioned with a mollusc shell called *urukwa.* About one half of this shank is coated with prepared beeswax called *iriti* and inserted up the hollow shaft for about six inches. The part of •the shaft containing the shank isthen loosely bound with ambaibo bark..,ber and left to..dry. While it is drying, a small conical plug (*eafa) ,* likewise coated with hot beeswax, is inserted in the proximal end of the reed. This plug contains the nock of the arrow. After both have dried, the chonta shank and the plug containing the shaft are bound securely in place. This is done with fine cotton string which has been previously coated with paint made from ground seeds of uruku (*Bixa orellana)* mixed with saliva. To bind the shank, the arrow maker removes the bark-fiber and begins to wind cotton sbing around the shaft about four or five inches from the distal end, continuing his winds downward until about three inches of the protruding shank have been covered; to bind the plug, he begins to wind cotton string around the shaf t from the proximal end, continuing his winds about three or four inches down the shaft. The ends of the string used for lashing are coated with beeswax to hold them in place. The arrow is now ready for feathering. For this purpose only two kinds of feathers (*eo)* are used, except in case of emergency. All chonta-headed arrows are feathered with the large wing or quill feathers of the curassow, while bamboo-headed arrows are feathered with the large wing feathers of the harpy eagle. Informants

were emphatic in stating that these are the only feathers ever used, and it was rare that I saw an arrow feathered otherwise. Occasionally, however, the feathers of one of the smaller varieties of guan are used.

Feathering is done by the Peruvian cemented technique. Before a feather is put on, however, about five inches of the arrow shaft, below the lashing which secures the plug containing the nock, is coated with hot beeswax. Then the aftershafts of a feather are removed (the mandible, containing teeth, of the palometa fish is used for this purpose) and placed over the soft beeswax along the shaft and in line with the nock. They are then lashed by winding at intervals between the barbs of the feather a very fine thread taken from a grasslike plant growing near rivers, called *dicibi.* Nowaday s, when available, manufactured cotton thread is considered ideal for this purpose. After the feathers have been glued and lashed to the arrow shaf t, the beeswax is smoothed out by rubbing a wet thumbnail over it.

A single barb (*erasi),* about one haH inch in length, is lashed onto the chonta shank of an arrow about half an inch from the point. 'Barbs are generally made from the hard stays which grow in the soft wood in the center of a palm tree which the Siriono call *hindoera,* although chonta wood is also used sometimes. The barb is flattened on one end and lashe_d securely to the shank with line cotton string coated with beeswax.

Bamboo-headed arrows are made in almost exactly tl1e same way as chonta-headed arrows except that the bamboo head is lashed onto a chonta shank that is flattened on the distal end. Nowadays, bamboo arrowheads are snt out with bush knives, but formerly they were shaped with mollusc shells. They are glued to the flattened chonta shank with beeswax and lashed tightly to it with cotton string covered with uruku (*Bixa orellana)* paint.

After an arrow has been :6nished it should have a certain twang when set in vibration. This *is* tested as follows. The maker grasps the arrow in about the middle of the shaft with his left hand and lifts it up to the height of his eye. While sighting along the shaft he grasps the nock end of the arrow between the thumb and first finger of his right hand and bends the shaft slightly toward his face. He then. releases his :6ngers with a snap and the arrow, if a good one, vibrates with a twangy sound. An arrow which does not produce this sound when set in vibration is thought to be a poor one.

*A rrows a*re always retrieved and are frequently damaged on the hunt. *H* the shaft of an arrow is broken, a *cross* section is cut_off evenly on both sides of the break, and a pencil-like rod of chonta palm wood, about six inches long and covered with beeswax, is inserted about three inches up the hollow shaft of one part of the broken reed. The protruding piece of the chonta tod is then inserted into the hollow shaft of the other part of the broken reed until both parts of the reed meet. To complete the job of mending, cotton string is wound around the shaft for about three inches over the break.

Some mention should also be made of the use of pieces of wood as weapons. Clubs are never manufactured but chunks of wood cut or picked up at random sometimes serve as clubs to kill wounded animals and to pound with.

Housing

To judge from the type of house constructed, the problem of shelter among the Siriono is not a serious one. y.ttle time is spent in making a dwelling, nor when built does it comfortably protect them eith rfrom the inclemencies of the weather or from the ubi.q:mtous insect pests that continually harass them. The house, whether shared by *t*he entire band or hastily erected by a single family or hunting party on the march, is always the same general type, although varying in size and degree of completeness. It consists of a roughly rectangular frame of poles against which are set, at an angle but not bound together, the long leaves of the motacu palm. The house is thus but an elaboration of the most simple type of lean-to or windscreen.

But at the same time

No one person supervises the construction of a house. Before building one, a site is selected by general agreement. It must be near water and relativly free of underbrus ime should contain a few sturdy trees to serve as upright supports or CQlumns upon which to lash the frame. Care is taken to select a spot which contains no dead or rotten trees that may fall over during occupancy. However, trees are never cut down to clear a house site; rather, the house is built around them.

After a site has been selected, the men go in quest of poles for the frame. Nowadays, these are cut from nearby trees with machetes, but formerly they were doubtless hacked off with the digging stick. No particular type of wood is specified for the construction of the frame, although frequent use is made of soft chonta palm trunk and of heavy bamboo, which is abundant in certain parts of the area. The sturdiness and size of the poles for the frame depend upon the number of people who will occupy the house. They must be of sufficient strength to withstand the weight of all the people in the house, since their hammocks and gear are tied to the poles of the frame as well as to the trees onto which they are lashed. If the distance between the trees to be used seems too great to bear the weight that the poles will have to support when they are lashed between them, additional forked trunks are sunk upright in the ground by digging them in with the digging stick to add further support to the frame.

The poles, when cut, are lashed to the outer side of the trees and in the forks of the upright columns with lianas, which are wound several times around the poles and th_e supports until they are secure. This liana lashing is fastened with haH hitches. The entire frame is bound to the trees and to the upright supports at a height of about five feet above the ground.

The next and final operation in housebuilding consists merely in setting against the frame, at an angle of about 60° -frQm the, gi:ound, several layers of .the green leaves of the motacu palm. These leaves; which form both the walls and the roof, are placed with the butt end on the ground. As they are about -£££teen feet long, they bend rather sharply at the top, so that when they have been placed around the whole frame, the house has a somewhat conical appearnce. Often the leaves are npt long enough to meet at the top, thus leaving a gap through which the smoke from the fues between every hammock escapes, and through which the rain enters freely during a storm. The house 'COn*t*ains no doors *or . windows; one merely works*: *his way in* •'

$ thr*o*ugh *h*e palm leaves. clear families on . a•hunting and gathering xpedition, wheu they may be abse:µt Jtom the band for from a few days to seyeral weeks .and are rather *cop* stantly on the march, take even less trouble in the construction of a nightly shelter. All they build is a rude shelter construeted like ene side of the abovedescribed house. The Siriono country .is dotted with the remains of. shelters erected by hunting parties that have stopped there for a night or -two .in eir 'wanderings.

. Having roamed over - n extensive part .of thearea where the Siriono are accustomed to• travel throughout the year, I can report that. these'. are the only types of shelters that I .ever saw built. When it rains, a. shelter is improved to the extent that -a £ew large leaves of patuju-a wild plaat resembling the banana plant but not producing fruit-may be P,laeed between the layers of motacu leaves and over the hammock where an individual sleeps, hut such improvisations are rarely adequate to give one•a dry night of rest if the rain is more than a sprinkle. Ort occasions when it rains heavily-and this happens on the average about two or three nights per week during .,t. he rainy season-the Siriono grumblingly tak s down his hammock and squats by the fire, which is always careful1y

,protected from the rain by leaves of the patuju, until the downpour passes. Consequently, he undergoes many a sleepless night during the year.

The building of a h0:u-se entails no magical procedure and it is ahnost always exclusively a task of the men. :A'.rriving at a new campsite, the w:omen are usually immediately occupied in tending their children, unpacking their gear, carrying water, and kindling a fire for cooking wbat victuals the day's march and hunt my have yielded. Meanwhile, the men work co-operatiYely in Qutting and lashing the poles for the frame. The number of leaves_ plaqd against the frame, however, is largely an individual matter_; if a man makes no move to cover that part of the frame where he will sleep with his family, no ,one else will bring leaves to covet his section of the house for him. At best, rarely more than •two layers of leaves are placed over, the frame. Moreover,. a newhouse is never built larger than a ize j.ust su_fficient to accommodate the people present at the time of building. If families are away from the• band. at the time, additional space is not provided to accommodate them, and when they return they themselves .will have to add a section to the main pouse. he a':erage house shelter ng a ban_d of from 60 fp *Bq_* people is a • roximatel six feet long, twenty-fi:ve eet wi e, fifteen feet high at the center*, and*

*ab_* five feet hlgh 'at the frame. It can e constructed in#' about an hour's *tune.* 'Selaom is mo*r*e *than* fifteen min-

utes or a haH hour spent in the constructiq_U o.L:a. l n-to forthe night.. .

Other types of buildings, such as cookhouses, grarlaries, and clubhouses, are not built. A Siriono settlement consists of but a single hut, constructed in the manner described above.

The determin ation of why the Siriono maintain such an apathetic attitude toward housebuilding and sheltering themselves from the unpleasant aspects of their environment, such as rain, cold winds, and insect pests, presents an interesting psychological problem. When first traveling with them, I was puzzled at why they even took the trouble to place a few leaves over their hammocks, since these seemed to offer them no visible protection. On closer scrutiny, however, I found that the few leaves placed ever their hammocks did protect t*h*em from twigs and small bran ehes wliicli are continually failing from tro:gical trees in the ajght. Moreover, placing a few leaves over the.. hammock protects them f*r*om *the rays of the moon ,* ch e y on a sleeper. Other than this, the she-lt-er•s are beueved aduall lindness if they of the Siriono seem to offer them little protection.

The house is but sparsely furnished. The hammock is the principal article of furniture. Hammocks are suspended across the width of the house with bark

:Sber ropes tied to the frame poles and columns. Household articles such as calabashes and baskets are suspended with bark-fiber string from the midribs of the palm leaves that form the walls and roof. Pots are left on the dirt floor. Houses are almost never cleaned. When they become unbearable new ones are built.

Dress and Ornament

No clothing of any kind is manuf actured or worn by the Siriono. The nearest approach to clothing-a custom probably adopted from the Brazilian Indians

-I found among the easternmost Siriono. Here I observed some young boys, and a few young men of pubei:ty age, wearing a twined G string of bark-fiber wound tightly around the waist; under this the foreskin of the penis is tucked so as to lengthen it. Where clothes have been introduced, however, they are greatly sought after, not so much because of modesty4 but because clothes both adorn them and protect them to some extent from the ubiquitous insect pests that continually harass them. That they are mostly desired for adornment, however, is attested by the fact that no matter how many clothes they possess they always' sleep stark naked at night when the insects are most abundant. Moreover, if a woman does possess a dress, before sitting down she always lifts it up and sits on her bare skin in preference to soiling her garment.

Even though they wear no clothing, the Siriono are rarely seen without some type of embellishment. Most commonly employed to decorate the body is a paint made from the seeds of the uruku or *Bixa oreUana* plant, which is extensively used for ornamental pu.rposes by many South American Indians. By spitting on the hands and mixing the saliva with a fewuruku seeds a bright red paint is produced. This paint, which is never applied in any type of design, is robbed especially on the face, but on some occasions the entire body is covered with it. Its function is both sacred and secular. *A*lthou its ma ical significance is of prime importance, on such occasions as a i or eat 2 an ll!..warding off i])ness, the body is covered with uru

4 In this connection about the only thing a Siriono man is modest about is displaying the glans of his penis, and when standing around he is constantly tug at the foreskin so as to lengthen it. Women likewise display little modesty, but when sitting on the ground they always cover the vulva with oe heel.

Qr util!!arian reasons, | - namely, as a prote;ction froll_! wit | • Va.seline, e Siriono does so by covering | | | nsec-t-:riites and cold weather, when ll)os,guitoes arthick or when a cold south wind blows. *Like* tlie'Clianhel swimmer who shuts out . Id y co ting his o y hisliocly with *u*rukii.

–Nex£ in importance to uruku. for decorative purposes are various bright-colore feathers *(:eo)* which are glued-into the hair with prepared beeswax *(iriti)* .• Like uruku; feathers are_ extensively empJoyeg to decorate the bait on festive occasion. It is importnt to note that the same types, of fe_athe.rs are always used no matter •what the occasion my be: a birth, a death, drinking feast, or a bloedletting rite. Those employed come trom the toucan (red feathers from the back, yellow feathers from the breast, and white feathers Jrom tinoer the •wings), from_ the curassow

.(downy white breast feathers), and from the !:)awy eagle (also the downy it lfreast feathers},. Al though there are'many other brightly colored 'birds' tn the area-the ma aw, for instance-:-the typ:s mentioned above were the on ones I ever saw used for deeorativepurpose. The qnderlying reasons for this,

•other than that the ancestors had followed the, same pattern, wasnever able to ascertain. ..

It is the women who pluck the feathers, .Prepare them into tufts, a.nd glue them into th - 4,a_ir. Irt the case of the toucan; when the bird is kill<:,q the breast skin is always removed with the feathers 'w:hlcli are later plucked for decoration, In tfie -case of .the other birds mentioned, the desirable feathers are plucked af ter the dead animal has. been brought to the house. The tufts are made.by first binding eight or ten of the clown feathers together •at the base with a piece of cotton string or bark-fiber and then . vering the :binding with prepared beeswax. The tuf ts are gl ed to the hair by, first softening the beeswruf with a firebrand.

. In addition to tuf ts of feathers, bunches of quills of the peccary, _porcupine, and paca are: sometimes glued 'into the hair of you'ng boys so as to make •them good hunters of these animals when they grow up.

Necklaces (*ewi)* are worn both for adornment and for magical reasons Animal teeth are especially favored in necklace.,making. When a coati is killed and after it has been cooked and eaten, the e_yeteeth. are extracted with the fingers and small holes are gouged out in the roots of the teeth by the men, who employ for this pnrpQse an eyetooth of a rat, a squirrel, er a paca hafted. to. the humerus _ of a howler monkey. After a sufficient number of te.eth (no specified nYmber) have been obtained, they are strurtg on a pjece of cotton or bark-fiber string •by the women. The penis bone of the coati Qr the .gristle from the back of •fhe ankle of the haq>¥ eagle is sometimes added as a charm tothese necklaces, which are worn especially by parents uring the couvade peri,ed following oirth:

Less often employed •for making necklaces are the eyeteeth of the spider monkey, which are drilled in the manner described above. Necklaces are sometimes made from the molar teeth of the peccary and the coati, but in such cases holes are not drilled in the teeth; they are merely tied to a string which is placed around the teeth between the roots.

The hard black seeds of the chonta palm and toenails of the .tortoise :are sometimes drilled in the man

•ner described above and used for making necklaces. The base of the quill feathers of various birds, especially the,pllrrot, the macaw, the harpy eagle, and the toucan, are_ also similarly employed. In the case of the toucan the windpipe may be dried, cut into sections, and strung into necklaces. Other products employed for making necklaces include small sections of young chuchi6 (the reed employed in arrow-making), old hair wrapped in cotton string, sections of umbilical cord (also wrapped in cotton string and covered with beeswax), and even parts of discarded pipe stems.

Age, sex, and status differences do not affect the wearing of necklaces, although, as we shall later see, certain ones seem to be worn only en specific occasions.

Some mention should also be *m*ade of the wide*s*pread use of-cotton string covered with u,ruku for magica and decorative puq>os . This is wound around the wrists, the arms (above the elbows), the ankles, the legs (below the knees), and the neck of the father and the mother after the. birth. of a child, and is worn for approximately a month thereaf ter. No rings, ear, nose, or lip ornaments are ever worn. The only type of body mutilation.found among the Siriono results from the practice of ceremonial bloodletting, which will be discussed more fully later. Suffice it to say here that the adult men and women are stabbed inthe arms (the men on the inside of the arms from the wrist to the elbow and the women on the outside of the arms from the elbow to the shoulder) with the dorsal spine of the stingray. When the wounds from these stabbings heal, there re.mains a series of decorative scars, which are both tribal marks and signs of adulthood. Although bloodletting occurs on other occasions, the scratches made,in the skin then are usually so superficial as to leave no scars.

No age, sex, or status differences are manif ested in hair styles. The only exception occurs in the case of young girls *(yukwaki) ,* who have their heads entirely shaved before undergoing the rites to make them eugible for sexual intercourse and marriage. Young children receive their first haircut in the tribal style the day after they are born.

Hair is cut by the women with a piece of bamboo.

There are no specialists who perf orm this task. A woman usually cuts her husband's and her children's hair, her own being cut by a sister or a co-wif e. The hair is cut to a length of about a quarter of an inch all over the head. That over the forehead is depilated, or shaved with a bamboo knife, to a very high semicircle. The ears are left exposed. In the back, the hair is cut straiglit across at about the level of the lobe of the ear. Haircuts are given about once a month, although the forehead hair and eyebrows may be depilated as often as every ten days. For depilation the woman covers the tip of her index finger with beeswax and grasps the hairs between her thumb and index finger. After the hair has• been depilated, the entire forehead is covered with uruku, which acts as a healing balm. In the case of

young children, a few feathers of the harpy eagle or the curassow may be glued to the back of the hair after it has been cut to promote the future growth of the child's hair.

The disposition of hair clippings varies with age. In the cas of young children the hair is saved, wrapped in cotton string, covered with hot beeswax, and tied around the neck of the child or its mother. The purpose of this is to promote the future growth of the child's hair and also to prevent the child from becoming sick in the head. In the case of adults the hair is thrown away deep in the bush, although I also observed in Casarabe that it was sometimes buried in the ground just outside the house. Informants told me that leaving old hair around was apt to cause headache.Nail clippings receive no special ueatment.

Beards are more rarely cut than the hair, but occasionally they are shaved off completely to promote the growth of an even• longer beard. Mothers sometimes glue a few beard hairs of the paca into their boys'hair to ensure that their infant sons will possess a heavy beard like a paca when they become adults. Hair from the beard, like that from the head, is discarded in the bush or buried. The same may be said of axillary hair, which is depilated when present. On the whole, however, the Siriono possess little body hair, and most of what they do have is rubbed off py-fue brush of the forest. Pubic hair is never depilated.

Property

The native concept of property may best be expressed by saying that the environment exists for the exploitation of all members of the b d, and that the society recognizes the rights.of oership only so far as this exploitation is. pursued. n etlier.words, the pre-_ serve of the Siriono is comm*u*nally owned, but its products become invidual prpert;y orilywneii they are liunted, conected, or used.

Actuall*y,* little real property exists. What does exist is limited to the immediate possession, by a family, of a garden plot, by virtue of haying cleared and planted it, or to the right to collect from certain fruit trees, by virtue of having discovered them. When a man comes across a new fruit tree, lie may mark it with a notch; this will give him the right to exploit it (for one season at least) while it is bearing fruit. Such rights, however, do not extend to hunting grounds, fishing sites, stands of arrow reeds, uruku trees, or calabash trees, all of which are regarded as public property. The house is both communally built and *communally w*ned.

•Since the material apparatus is sparse, holdings in movable property are few. As regards all of these possessions, however, individual rights of ownership are recognized and respected. Thus a man is owner of his bows and arrows, the animals which he kills, the maize or manioc which he raises; a woman is the owner of her pots, calabashes, baskets, necklaces, feather ornaments-in fact, all of the things which she herself makes or collects. In some possessions, such as pipes and hammocks, which are•used by both the husband and the, wif e, ownership, of oourse, may be regarded as joint.

The sparsity of material culture limits transactions in prop.erty largely to exchanges in food. However, these are not carried out on the basis of barter, or buying or selling. Such notions are foreign to the Siriano. Nevertheless, the giving of food does involve an obligation. on the part of th .recipient to return food to the donor at some future date. For instance, -if a man hunts a tapir, which he is forbidden to eat for magical reasons, part of the meat may be distributed to members of his wife's family. The next time the recipients hunt tapir they will be expected to return meat to the original giver. This type of exchange is about the only property transaction that takes place in Siriono society. Marriag*es ap.d divorces,* !r *.exa*le, are not accompanied by an exchane of roperty.

Borro g or en g a ost never occurs; one,*s* neighbor • rarely has anything that it would be usefulto *borrow.*

As a consequence of not accumulating property-a notion foreign to the Siriano-the problem of inheritance is greatly simplified. Actually, it hardly exists, for when a person dies most of the things with which he has had intimate contact are placed with the body or thrown away. Thus one's pots, calabashes, pipes, and feather ornaments are left at the site where the body is abandoned. Exceptions include hammocks, necklaces, cotton string, and sometimes a man's arrows, particularly if he has been a good hunter. These may pass to his son or to his brother, while the few possessions of a woman usually pass to a sister or a co-wif e, though they may also be inherited by a daughter. Thus inheritance of possessions may be either patrilineal or matrilineal, depending upon the objects and persons involved. Succession to ehieftainship, however, follows patrilineal lines.

Chapter IV EXPLOITATIVE ACTIVITIES

Seasonal Cycle

IN eonq,ast -to most other aboriginal peoples of the area in which they live, *t*he Siriono are semi..nomadic forest dwellers who live more bYhunting, fishing, and g therfng_ than they do by farming. All of their economic activities, of course, are governed to a considerable extent by the seasonal changes which take place throughout the year. During the periodic inundations which last from December to May, when the whole area, except for small islands of high ground, becomes one huge swamp, the mobility of the group is considerably impaired. qonsequently., at the begin. an | | ning of *t*his cycle a stretch of higb ground containing abundance of palm frees and wild fruits is selected for occu -ation during llie Hood months and the wild fruits•are harveste as ey ma r. Such hunting as is possible (-considerable game is attracted by wild fruits) is done, but fishing becomes a negligible activity, siee the waters become turgid. *T e diet at ijli*s, season of the ear *c*onsists rinci all of wild fruit nd vgeta e oed, an e band is a fairly eohesive social *u*ni*t.*

Ii;sharp contrast to the sedentary mode of life during the ramy season is its nomadic character durin the ry season. ter t e cro s have been harvested in *p* - ay - and after the waters have begti!! w

-recede in June, the entire band s1llay start• out *o*n a

11untin an a e e •. lOn, wandering rolfr lake to lake, from stream O stream, .exhausting Ef

wild. life of each as it travels. Consequently, meat, • and Wild honey become more. I!rominent in the wet at this season of the year, •and the band becomes a loose social unit.

When the next rainy season arrives, the band ma return to the same spot occupied -the year before or it may move on to another. This depends largely on the quantity of food available. Having wandered for years over the same large area, the Siriono possess many sites contai•uing old gardens, uruku (*Bixa orellana)* trees, calabash trees, etc., to which they IJlay rea;im from time to time intheir wanderings. ,

Following is a calendar of the chief econoic activities carried out and the p,rincipal foods eaten throughout the year.

Mo-nth

January

Aetivities

Hunting and collecting; little or, no agricultQral worlc; group usually sedentary because-of the rainy season.

Foods

Game; palm: eabBage; motacu fruits..

February Hunting and collecting; Game; palm eabharvest of maize hage; motacu fruits; planted in November; papaya; maize; some harvest •of wild fruits manioe; coquino; be.gins; group sedentary aguai; hmdoera; because of rainy season. gargatea; pac4y; pacobilla.

March

Hunting and collecting; no agricultural work; principal harvest of Wild

Game; palm cabbage; mot.ac4 frɻits; papaya; maize; some

Month

April

May

June

July
August
Activities fruits;, group sede,ntary because of rainy season.
Hunting and collecting;
.group still sedentary; harvest of wild fruits almost over;little or no agricultural work.
Hunting anq collecting; parvest of chuchi6 b& gins; making of new arrows; group begins to'
-b more nomadic; possible .replanting of maize.
Hunting and _collecting; extended families become more 11e>madic; hunting eeclitions;
. fishing begins; harvest f htrchi6 terminated; ahn_ost no agricultural work; band as a whole may decjde tQ migi:ate to other spots for better huntiqg d fishing.
Usually on the mar.ch;• hunting and fishing; no agricultural work.
U.sually on the march; may return to eat carriots and ftesh. maize planted in Ma:y;_
Foo<J,s maru•oc; coqu1•no; aguai; hfndoera; gargatea; pacay.
•came; palm cab
.age; motaeti fruits; papaya; coqu1no; aguai; little maize and manioc.
Game; palm cabbage; motacu fruits; little manioc;_ maize. and papaya..
Game; pahn cabbage; motacu fruits; little manioc; maize and papaya;.some fish and wild honey.
Game and fish; palm cabbage;-wild honey;' motacti fruits;_ cusi nuts; some, .c. am.otes.,.
Garne and fish; palm cabbage; wild honey.; camotes; maize; cusi nuts;

Month Activities Foods

hunting, fishing, and collecting the chief economic activities; drink		motacuing fruits; also a fruit called *ndw.*	parties occur be			cause of the abundance			of wild honey.			September	

Usually on the march; | |
Game and fish; palm | | | hunting, fishing, and | | cabbage; wild bee | | | collecting; many drink| | honey; motacu | | | ing parties. | | fruits; camotes; little mam•oc or maJ•.Ze; | | | | | turtle eggs. | October | |
Hunting and collecting; | |
Game and fish; palm | | | clearing small plots for | | cabbage; motacu | | | planting; during this | | fruits; some camotes; | | | month the group usually | | little manioc, maize, | | | selects a site to weather | | or papaya. | | | the rainy season. | | | November | |
Hunting and collecting; most of the planting oc| |

Game; little fish; palm cabbage; | | | curs inthis month; | | motacu fruits; few | | | maize, manioc, cotto and tobacco are sown; | | other vegetable products. | | | since agricultural activities are limited, they interfere little with hunting and collecting; | | | | | fishing stops because | | | | | the waters begin to rise | | | | | and become turgid. | | | December | |

Rainy season begins in full force; no agricultural work; hunting and collecting are the only | |

Game; palm cabbage; motacu fruits; few other vegetable products. | | | important activities; | | | | | wild fruits have not yet begun to ripen.

Hunting

No other activity of the men can match the importance of hunting. The temper of the Siriono camp, in fact, can be readily gauged by the supply of game that is daily being bagged by the hunters; ther-e is rarely ever equaled that joy which follows a successful chase or that discontent which follows an unsuccessful one. Around every Siriono hut there are trails, scarcely visible and marked only by an occasional bent leaf or twig, spreading out in all directions. On any morning just before. daybreak it is a common sight to see the naked nunter, bows and arrows over their shouldei:s and perhaps with a piece of roast manioc in their hands, silently fading into the forest in all directions in quest of game. Some go alone; others in pairs; still others (as many as 6 or 7) may join together to go in quest of a troop of peccaries or a band of spider monkeys.

Besides his bow, each hunter takes with him about eight arrows-five with a barbed chonta head to hunt small tree game and three with a barnboo bead to hunt larger ground game. As he leaves the hut the hunter walks silently but rapidly through the forest *so* as to arrive early at those spots such as water holes most likely to contain game, and as he goes along he searches the branches a'bove him and the forest around him for a stirring leaf or a snapping twig that might indicate the presence of game.

Almost all animals of the environment except snakes are hunted, and various techniques are employed to bag game, depending upon the type of animal one encounters. Since the bow and arrow must be depended upon exclusively, and since the quarry must be close to be shot with such a cumbersome weapon, the Siriono is a master at .both stalling and imitation. He can imitate to perfection the whistle of a bird, of a monkey:, .of a tapir, or the call of a peccary. There is not an animal sound of the forest, in fact, which he does not know and is not able skillfully to imitate. In hunting guan, for instance, he whistles like one of the you.ng; if there is a guan within hearing, it is brought within range of the bow by th.is mans. I have frequently seen guan brought to a branch within ten feet of a hunter; and on one 0ccasion, during the mating season, I saw one brought so close by this method that it was actually caught alive in the hunter's hand.

So as not to disturb his quany,. a hunter refrains from talking when in quest of game and communicates with his companions largely by whistling. This specialized language has become so highly developed among the Siriono as. to enable hunters to carry on limited conversations, and it is often used to advantage. On one occasion, when I was hunting with two Indians along the banks. of a brook, my companion and I, who were on one side, suddenly heard a whistle from the opposite bank, along which the third member of our _ pa:t:f}' was waJking. We stopped immediately and iny companion answered the whistle, to which the other replied in mm. After several moments of whistling conversation my companion selected an arrow, put it in his bow, walked a few feet ahead, aimed into a tree, and released the arrow. Down fell a curassow, much to my surprise.What had occurred was that our comrade on the other side of the brook could see the bird, which was not visible to us, but it was out of range of his bow. As t was possible for us to get in range, he indicated by whistling the location of the bird, so that it was relatively e,asy for IQY companion to walk to the sp0t •and shoot it;

Other types of co-operation between hunters have developed. becuse of unusual circumstances encountered in the jung le. Tlie area, for instance, contains many tall trees in which game is sometimes situated at such a height that it is. out of range of the bow. If a •hunter is alone he •will usually be

fo:cced to pass up such game, but if a companion is with him they may co-operate in making an effort to secure it. This is done in the following manner. One of the ,hu-nters slings h1s taut bow ov_er, his back :and climb$ -up the

\ree.to a branc;h tht is with.in range of tl;ie animal. U the trunk is of s_uch thickness as to prevent him from climbing directlx up the tree, a sapling is cut and bound to the trunk with liana. He then climbs this sapling until the branches of the tree can be reached. Once in position to snoot the •animal, h signals to his comganion below„ whet puts an arrow into his bow and releass t with just enough force to reach the hunter al-oft. '{lie latter, s the rrow goes by, grabs it, puts it in lii:s bow; and shoots the animal. This is b:y .no means•a common method of hunting and is practiced only in case the animal in the tree is one not likely to move, such as a femalehowler monkey whose male. companion has been killed. However, *1* witnessed it several times whileI was living witli the Siriono, and in each instance tbe game wasbagged. • The animals, most frequently bagged are •mor.ikeys, of which there are several kinds in the a:rea. Most ahundant is a species of capuchin monkey, called *keN.* If a hunter comes back from the chase with anytliing, he is most likely to have one or two *keN* in his catch. These monkeys travel in _ groups as large as a hundred, and, as there are always many young ones in the band, their whistling can be beard from a great distance away. Upon hearing these sounds, the hunter stops and whistles like the monkeys (I was never able to distinguish the whistle of a monkey from that of a hunter), gradually bringing them closer to his post. By hiding behind a tree, he is usually able to shoot one or two before the rest of the band sees him, becomes frightened, and begins to disperse. When this occurs, he selects one of the larger monkeys and gives chase, trying to drive it into the open where it can be shot. If in Hight the monkey hides momentarily in the thick foliage above, the hunter tries to rout it out by tugging on one of the lianas which grow to the ground from almost every tree. Getting into position to shoot one of these monkeys, however, is not easy, as they move from tree to tree with great rapidity and stop only momentarily. Moreover, the underbrush below is extremely dense with lianas and spines, so that a hunter's progress is often impeded to such an extent that he loses his prey.

Next in abundance to the *keN* are the long-haired, black spider monkeys called *erubat.* These are more highly prized than the *keN* because of their size (10 to 20 pounds). Spider monkeys are especially valued during the rainy season, because at this time they are very fat from eating the wild fruits that mature in the months of February, March, and April. Sometimes these monkeys have as much as a haH inch of fat on their bellies.

Spider monkeys are chased and bagged in the same manner as the above-mentioned *keN* but are less difficult to shoot because of their greater size and sluggishness. They often await their fate, shaking the branches of a tree at the hunter. Nevertheless, they may cause the hunter a considerable amount of trou-

Plate 1 Eruba-erasi *(Sick-face),* a Siriono boy about 14 years old *(Tibaera).*

Plate 2 A mother demonstrating how she carries her child in the baby sling.

Plate 3 Enia demonstrating the method of carrying baskets by men *(Tibaera).*

Plate 4 Bringing in firewood from forest in carrying baskets

(Tibaera). hie, since they generally break his arrow between their hands when dying and, once -dead, they are a'ole to hang to a branch *with* their strong prehensile tails for as long as twenty-four hours, thus forcing the hunter to climb the tree to retrieve them.

A third type of monkey that contributes considerably to the food supply is the howler or *tendi.* Unlike the spider monkey, the howler does not travel in large bands but in polygynous family groups that vary in size from a male and two females to a male and six females-. When hunting the howler, an Indian usually tries to bag the male first; the females will then not move f:rom the area, andhe can hunt them down one by one. After the male has been killed, the females often cluster together high in a tree, from which they do not move, and the aforementioned method of cooperative hunting can be applied to kill them.

In addition to the types of monkeys already mentioned, there are three smaller varieties that the Siriono occasionally hunt but which do not contribute much to the food supply. These are a small owl

monkey, called *yik£na,* and two varieties of squirrel monkeys, called *gifieti* and *ngi.* They are hunted in the same manner as the others, being chased from tree to tree until they are bagged.

Next in importance to monkeys in supplying meat for the camp are the numerous landand waterfowl of the area. These inclu-de, chiefly, several varieties of guan (*yaku) ,* curassow (*bitoN) ,* macaw (*kirf.nde),* toucan (*yisadi) ,* parrot (*yikana) ,* duck (*yei) ,* cormorant (*m£Ngwa) ,* partridge (*oombu) ,* hawk (*ng£da) ,* egret (*gwarisi),* and vulture (*urubu) .* On the pampa there are other large birds, such as the South American ostrich (*ngidacibaia) ,* but as the Siriono with whorn I lived were strictly a forest people, these were never hunted. All birds are shot with the bow and a barbed, chonta-headed arrow. They are usually brought into range by careful stalking or by imitating their calls.

• The pursuit of the collared peccary (*tai)* and the white-lipped peccary (oi4,su) oonstitutes an important part of the chase and contributes much to the meat supply. The former, which are usually observed foraging in the forest in groups of from two to ten, are quite abundant, and the latter, which are sometimes found in bands of as many as two hundred, are not inf requently encountered.

Collared peccaries are usually.heard rooting nearby as one goes through the forest. Upon discovering them, the hunter prepares his bow for the kill, imitates their call, and shoots them as they come *w*ithin range, aiming for the heart or the neck.

White-lipped peccaries can be discovered a great distance away, both by smell ancl sound. Moreover, they are one of the few animals that the Siriono spend days in tracking down and are also one of the few that are sometimes hunted co-operatively. As band peccaries are accustomed to follow a leader, and to root up almost everything as they go along, to track them down isnot a difficult task.

To originate a co-operative peccary hunt some hunter must previously have sighted fresh tracks relatively near camp, say within a half day's distance on foot. On the day following the r .eport, the hunters set out, using the person who discovered the trail as a guide. They take with them only their bambooheaded arrows (*takwa) ,* as only these are effective in killing such a large *a*nimal Arriving at the trail, they follow it until they can hear the noise of the peccaries, which is not unlike the. sound of distant thunder-the reason perhaps why the Siriono have associated thunder with the falling of peccaries to the earth.

After the band has been discovered, the hunting party stops and lays plans for the kill. If the chief is present-he is always one of the best hunters-other members of the party usually accept his method of attack. A band of peccaries is always approached against the wind, so that the hunters will not be discovered. If it is possible to come up from behind the band, this is considered the best strategy. In any case, an attempt is always made to circle the band so as to kill as many peccaries as possible. Some hunters ap-.. proach fr.om the rear; others from either side. The sig:nal f oi: the kill is given by the hunter first getting in position to shoot: the arrows then begin to fly from all directions. Each hunter usually picks ,a fat peccary for his first arrow. If possible, the leader of the band is also killed, not only because he is generally the biggest boar but because the band will thus have greater difficulty re-forming and the other peccaries will be easier to kill.

On a chase of this kind a hunter usually uses up all the arrows he has brought with him, but if there is still game around this does not deter him from continuing the hunt. He may continue the attack with a club pick

• up at random or cut in the forest. I have even ed seen hunters catch young peccaries with their hands and bash their heads on the nearest tree or drown them in a water hole that happened to be at the site of the kill.

After the band has dispersed and the principal kill has been made, strays are run down and slain. It is only after no more animals are available that the slaughter is stopped. The hunters then meet at the place where the kill began, dragging all the game to that spot. *H* the day is yet young, i.e., before noon, if the kill is such that it can be carried home, and if the camp is not far away, they may set out for the house at once. Usually, however, they decide to remain overnight in the forest and roast the meat. If it is late in the day, they spend most of the night preparing and roasting the game, and on the following day, after an all-night feed, carry the roasted meat to the camp in rude motacu palm baskets.

In case raw game must be left in the forest for a night, the intestines and viscera are removed, and the carcass_es, covered with palm leaves, are tied in a tree to sfeguard them from ants and jaguars. On the following day the women are sent to bring inthe game.

The Siriono who wander in these regions west of the Rio Blanco, where there is open country, frequently encounter the large parnpa deer (*kiikwandusu).* Those who inhabit the forest country east of the Rio Blanco most often meet a smaller variety of forest deer (*kiikwa).* _

When in quest of the pampa deer, the .hunter tries to reach the pampa as early in the day as possible. On arriving at the open country., he may sight his quarry a great distance away. Deer are relatively easy to stalk, as the tall grass of the pampa (frequently higher than one's head), as well as the. anthills, provide an almost perfect blinq. The .naked hunter must proceed cautiously, however, else .the knif elike blades of some of the pampa grasses will cut his skin to ribbons. In killing deer the hunter always aims for the heart.

The tapir (*eakwantui)* is the largest animal in the area, and since its carcass yields the greatest amount of meat of any animal, it is considered the greatest prize of the chase. Because of the undeveloped hunting techniques of the Siriono, and because the tapir does most of its feeding at night, when the hunter is fast asleep, it is rarely bagged. Only four were kille.d by the Indians at Tibaera during my residence of about eight months, although many more were shot. Even at daybreak, when the hunter is alert, the tapir has already retired to sleep in the spiny, liana-covered underbrush into which it is difficult for the hunter to p.enetrate, and since he possesses no dogs to rout his prey, he rarely runs across one in his wanderings. Moreover, a tapir is hard to kill and, when discovered and shot, frequently escapes into a swamp where the pursuer dares not venture.

The few tapirs that are killed are usually shot while they are asleep. They are often detected by a short, shrill whistle which they make at this time. They may also sometimes be located by the call of a small bird, known to the Siriano as *eakwantui ica,* which accompanies the tapir and lives largely by eating the wood ticks from his body. The call of this bird is a clear sign to the Indian that there is a tapir not far away. Once the sleeping animal is discovered, the hunter sneaks up quietly to within a few feet and shoots it in the heart with a lanceolate bamboo-headed arrow. If a feeding tapir is discovered in the daytime, the hunter conceals himseH in the brush nearby and whistles like another tapir until the animal comes within range of bis bow. He then aims for the heart and, having released his arrow, gives rapid chase until the bleeding animal falls.

The crocodile (*yikari ekwasu)* is one animal which is truly abundant in the area, particularly during the dry season when the waters are low and when they lie on the sandbanks to sun themselves or come farther inland to lay their eggs.

Crocodiles are hunted both with a bow and arrow and with a club. Arrows are employed when crococliles are in the water with their heads up for air; clubs, when they are lying in the open *sunning* themselves. When shooting a crococlile, which is *difficult* to kill, the liunter aims either for the eye or for the reon just back of the shoulder. Alter being *hit* anc1 threshliig arouna for some time in the water, the animal usually comes to the surface and can then be retrieved. *H* not the hunter may wade in, taking with him an arrow to locate the beast by feeling around on the bottom. Once the animal is located, the hunter goes under water, grasps it by the tail, and slowly drags jt ashore. As these reptiles _SOIJ)etimes live for an hour or two after they are shot, considerable time is allowed to elapse before any attempt is made to retrieve them. In case they are encountered in the open they are clubbed in the head until dead.

Newborn crocodiles are sometimes used by hunters to attract the mother. When a young crocodile is caught it begins to cry for its mother, who, upon hearing it, comes running out of the water to retrieve it. The hunter, waiting on shore, strikes the mother over the head with a club as she comes up the bank. By imitating a young crocodile a hunter can often produce the same result.

Crocodile-hunting is regarded as a precarious business, and the hunter takes care so asnot to get bitten. While I was Jiving at Tibaera an Indian named Eahok6ndu (Father-of-Long-hair), while, fishing at the edge of a lake, was surprised by a crocodile and bitten on the upper leg. He saved his life by

jabbing the point of an arrow into the crocodile's eye, but was left with a nasty wound that did not heal over for several months.

Coati are generally killed in the trees with barbed chonta-headed arrows. When a troop is discovered, a hunter is rarely able to kill more than one before the rest of the band takes to the ground in Hight. When this happens, the hunter drops his bow and arrows and gives chase through the brush. I have seen coati overtaken in this fashion. They are seized by the tail and their. heads bashed on the ground, or they are hit with a club picked up at random. Not infrequently a hunter is bitten or gashed by the sharp eyeteeth of the coati while making his catch. During my residence at Tibaera, Eok6ndu (Father-of-Tall-one) had his penis slit from one end to the other by a live coati which he was holding and trying to kill.

The jaguar (*yakwa)* and the puma are rarely encountered in the forest. They are mostly found on the pampa. Only one large jaguar and three small ones were killed by the Indians while I was living with them. Jaguars are shot, either in the trees or on the ground, with bamboo-headed arrows.

The giant anteater (*antand£sa) ,* being a slow animal, is generally killed with a club. Only incase one is discovered in a tree is he shot with a bow and arrow. The same may be said for the smaller variety (*antaw*

bufa). The honey bear when encountered tapping a hive of wild bee honey is shot with the bow and arrow.

Armadillos (*tatu)* are usually routed from their holes with a long, flexible midrib of motacu palm, and are clubbed as they come out. If caught outside their holes they are shot in the head with an arrow. The same methods are used with the paca (*tit£mi).* The agouti (*taiku)* is more generally shot while feeding on wild fruits which have dropped from the trees in the forest.

Most hunting is done individually or in groups of two or three. Game is carried in from the forest on the hunters back. The animals are bound together with liana and suspended from the hunter's head with a tumpline of liana. Each hunter carries in his own game.

Fishing

Unlike many of his South American Indian contemporaries, who developed or adopted the fishhook, traps, nets, or poisoning as methods of catching fish, the Siriono does all his fishin with bow *and* arrow. His ess eveloped techniques consequen y s ut

*h*im out from a large supply of fish that is found in the area, and has limited fishing largely to the dry season, the months of July, August, September, and October, when the rivers and lakes are low and the waters are clear. At this time there is an abundance of fish in the low waters around the rapids, and thes-e are caught either by shooting themwith the bow and a barbed chonta-headed arrow or by stabbing them with an arrow.

Although I have seen some fifteen edible varieties of tropical fish, the Siriano rarely attempt to catch more than four (catflsh, bagre, bentones, and yeyu.J Occasionally, one of the larger fishes, such as the pacu, is shot when feeding on chonta fruits that have dropped into a river or stream, but this is rare.

Around the edge of lakes,, the usual method of catching fish is to wait in the overhanging branches of a wild fruit tree that is shedding fruit on which the fish are feeding. As the fish come up to eat the fruits, which eithex: fall naturally into the water or are thrown in by the fisherman, they are shot with the chontaheaded barbed arrow and pinned to the bottom. Since the arrows are very long and the branches are low, the hunter to retrieve his catch merely reaches down and extracts ijle arrow, the fish being held by the barb. With patience and by occasionally changing his position, a man can shoot as many as a dozen fish in a day by this method.

Another source of fish, and perhaps the principal one, is the small ponds and streams which fill up with water and fish in the rainy season but which dry up in the dry season and offer the fish no means of escape. When the waters are drying, the fisherman walks through a pond catching the fish with his hands, stab.. bing them with an arrow, or hitting them on the head with a stick.

Although almost all of the Siriono today possess fishhooks, I rarely saw them actually used. Since they have no watercraf t of any kind, it is impossible for them to reach tbe deep water where a fishhook

would be of special advantage to them. Moreover, since they are not a river people, and since most of their camps are inland, fishing is not an important activity nor does it contribute much to the food supply.

Collecting

In the total economy collecting ranks next to hunting in importance. This activity is participated in by both the men and w2,m n, nd since much of the collecting is done by nuclear families, children get an early education in spotting and gathering edible products from the forest. Although women and children do considerable collecting while the men are off hunting in the forest, when it involves tree climbing they are always accompanied by the men. Now that iron tools have been introduced, many of the wild fruit trees of the area are being destroyed, because the natives find it easier to cut them down than to climb them when harvesting fruits.

Of all of the roducts collectecl, palm cabba e (*kiMa* is e most *i*mportant. ctically all of the palins of the re*gio*n yield an e*dib*le heart, but motacu is the most abundant and one of the easiest from which to extract the *kisw* (the tree is always cut down). It provides a constant sour<!e of vegetable food. This palm, moreover, produces a fruit .(*yukudi)* about the size of an egg, which grows jn bunches, and which also forms an important staple in the diet the year around. When pickings are especially slim these two products, although not very nourishing, can always be relied upon to tide the Indians over until a more substantial diet can be obtained. As we shall see later, the importance of the palm cabbage is reHected in the magical aspect of the rolture, its collection by women being occasionally preceeed by a magical bloodletting rite.

Other palms, besides yielding a comestible heart the year around, also bear fruits which mature in a more seasonal cycle than that of the motacu. During the months of February, March, and April, the small red fruits of the chonta palm (*sirfba)* are collected. At this season of the year the Indians also devote themselves to gathering the fruit of a palm not unlike the motacu which they call *.h,*n*doera.* In extracting these fruits, which grow in *b*u*n*ches, tlie tree is, climbed and the cluster pulled down.

During the months of July, August, and September there is an abundant harvest of the fruits of the samuque palm *(j£b 9:)* and of the nuts of the cusi palm These latter, which are usually collected on th ground after they have fallen from the trees,_ are one of the most nutritious wild foods found in this part of tlie Amazon *V*alley. The fruits of tbe asayi (*tibaera)* and the totai(*korondia)* palms, which are extensively used by the whites of the region for making wine, are not collected by the Siriono with whom I lived.

In addition to the above-mentioned palms, there are many other fruit-b.earing trees which seasonally add their crops to the Siriono food supply. Predominant in the months of February, March, and April are the fruits of the, coquino (*iba),* the aguaf (*ibadisa*).,. the gargatea (*dikisia) ,* pacay (*f,N* ga), wapomo (*asam*

bakwa) ' :paco'billa (*idaya) '* cacao (*ibiro) '* ballau {*fJo*

iba)' and paquio *(-tibari) '* as well as unidentined wild fruits which the Siriono call *mbea, tikarw,* and *taruma.* There is•.onlx one other fruit of any importance g ther-ed in the dry season. This is an acid fruit known to the whites of the region as *mbfs* and to the Siriono as *ndia.*

In collecting wild fruits the men climb the trees and throw them down to the women waiting below. This often entails considerable work, as the trees are sometimes of such size that it is necessary to lash saplings to them in•order to climb them, anµ it is frequently hazardous, since a man is liable to fall from a branch while picking the fruits. If the fruits are not located too high in a tree, however, a man may fashion a rude hook by 'bending dver and binding with lia'.n3 the t-0p end of a midrib of -a motacu pahn leaf, which £an then be used to p11ll the fruits down from the tree. People u_sually eat their fill at the site of a fruit tree before loading their baskets with fruit to be carried back to camp.

The digging of roots and plants and the grubbing of wormsare almost negligible occupations among the

Siriono, and these items provide hardly any part of the diet. The same may be said for the collecting of insects, which was never done in so far as I observed. Certain varieties of shelled invertebrates-a

mollusc called *urukwa* and a mussel called *yislta-exist* in the region, but these are likewise not sought for food, although their shells are gathered for tools. Several species of tortoise *(konombi)* are extensively collected for food. These are highly prized as they can be tied up and cooked when desired.

Like other tropical forest Indians the Siriano are fond of extracting the honey (*hidau)* of wild bees, which is the only "sweef ' they posses§, It is *relished* not only as food but for the making of mead as well. Honey is avidly sought, especially during the dry season when it is most abundant. In searching for h_pney, the Siriano do not go so far as to follow bees to the hive, but men out hunting, or collecting with the women, are most skilHul in spotting wild bee hives, which are usually located in hollow trees that are still standing. If the honey is not extracted when sighted, the person finding it returns later to do so.

In extracting honey the tree con*t*aining the hive may or may not be cut down. In any case, a hole is made-nowadays with an iron axe-below the spot where the honey is located. The combs are then removed with the hands and the honey wrung from them into calabashes. Before the introduction of iron tools, the hole where the bees entered the hive was enlarged by using fire and the chonta digging stick. The removal of a hive of wild honey often took as long as an entire day. Besides collecting the honey from the hive, the Indians save the beeswax, which is prepared for use as cement inarrow-making.

Agriculture

Although agriculture has been practiced for many years by the Siriono (they may originally have been a sfrictly nomadic people), it has never reached a sufficient degree of development to prevent their remaining a fairly mobile people. On the whole, its practi e, is subsidiary in the total economy to both *h*untin a co ec*t*mg. ne of the reasons for • may be that the game supply of an area becomes scarce before the rewards of agriculture can be reaped, thus entailing a migration of the band to other areas to search for game. Moreover, the sheer physical effort involved in adequately clearing a patch for planting is enormous, as all labor of this kind is done with the digging stick and fire. Hence the Siriono have doubtless experienced greater rewards from the collecting of wild vegetaole products and fruits, some of which, as we have seen, are available and abundant the year around, an they have from the practice of agriculture, whose yields are sporadic and uncertain.

At the time of my stay, the Siriono with whom I lived under aboriginal conditions were planting the following crops on a limited scale: maize((a soft red variety, unique in the are, sweet manioc, camotes, papaya, cotton, and tobacco) Here and there throughout th.e area of their wanderings, they have also planted calabash and uruku {*Bixa orellana)* trees. According to one of my oldest and best informants, Embuta (Beard), both calabashes and tobacco had been introduced in his lifetime, which would be within the last fifty years. Of the other plants, however, he was emphatic to state that his father had told him that they had been given to thetribe by Moon (the mythological hero) and were thus_ very old in Siriono culture.

No magical practice accompanies either the sowing or the harvesting of crops, and what planting is done is largely a family affair and not an activity in which all members of the band co-operatively participate. Both man and wife work jointly in clearing and burning over a small plot, frequently just outside the house, in which they sow, also co-operatively, a few plants or seeds of maize, manioc, papaya, camotes, cotton, and tobacco. These plots are seldom over fifty feet square, and most of the work in them is done with the digging stick, the only agricultural tool. Today, of course, machetes are commonly employed in clearing a plot, but the digging stick is still extensively used in planting.

Little attention is paid to the time of year in sowing, although more is done at the beginning of the rainy than during the dry season, probably because the group is less mobile during wet weather. However, I saw maize, manioc, papaya, and tobacco planted the year around. CaIJ}otes, on the other hand, I saw planted only during the months of March and April, these being harvested in July and August. Once plants are sown, little attention is paid to them until harvest. Although a more or less permanent Siriono hut is encircled by familial garden plots, by no means are all gardens planted just outside the hut. A hunter who is accustomed to going periodically to a certain lagoon, for example, to hunt or shoot fish, may plant a small garden there so as to have vegetable foods available when he

returns on subsequent trips. I used to make hunting trips with my friend and inf ormant, Eresa-eanta (Strong..eyes), and his five wives and children to a lagoon about two days' journey on foot south of Tibaera, where he . had maintained garden plots for many years. These hunting parties,which frequently included his two brothers and his fathers-inlaw and mothers-in-law and their f*a*milies, would often last two weeks, during which time we would make our headquarters at his gardens. While the men hunted -around the lake, the womep would tend the few plants and gather what produce they had yielded. Other hunters maintained similar plots on other lakes and would frequently repair to them with their families to hunt, tend their gardens, and eat. Excess produce, such as a harvest of maize, is sometimes stored at the site in rude motacu baskets, so as to have a supply available on the next trip. Generally, however, little movement takes place until most of the crop has been eaten, because of the difficulty of carrying it any great distance or the uncertainty of retuming to the same spot for some time afterward.

Ani*m*al Husbandry

11ie Siriano possess no domestica!e, d anima. Even the dog has not been introduced to the groups still wandering in the forest, although its existence is known through some individuals who have had contact with the outside. The general reaction to the dog, by those Indians who had had no contact with it, was one of extreme fear. This is not to be wondered at, since the dog and the jaguar are called by the same term, *yakwa.* When I asked informants why the two were called by the same name, they invariably called my attention to the similarity between the footprint of a jaguar and that of the dog.

Although domestication is an art foreign to the Siriono, the young of various animals are sometimes captured alive and brought home as pets; under such conditions, however, I have rarely seen them live for more than a day or two, as they are very roughly handled by the children and given no food. Consequently, they serve as morsels for some old man or woman for whom pickings are slim. Generally, the young of a*n*imals are killed immediately after the mother is killed. I was told by informants at Casarabe that young animals were sometimes raised to adulthood and then killed for food, but while living with the less acculturated groups I never saw a single instance in which this occurred. When we were settled at Tibaera, for example, I myself tried to raise several howler monkeys, a coati, a young tapir, and a baby anteater-never, however, with any success, because they were soon killed and eaten by their Indian wards. These would then give me some such excuse for their dying as having been smothel'ed by smoke in the night or having escaped into the forest. In all instances, I was able to establish that they had been killed and eaten while I was absent.

Water and Fuel

There are plenty of rivers, lakes, and streams in the territory of the Siriano that contain a fresh supply of water the year around. Even when one is traveling through the bush during the height of the dry season one can usually find a water hole, a stream, or a brook from which to drink. Campsites are always located near these spots. No wells are ever dug.

There is likewise no shortage of flrewood. The forest is full of dead and rotten trees that make excellent fuel.

Chapter V FOOD AND DRINK

Two of the most frequent expressions that one hears around . a. Siriano sheltr are: *': ediakwa tu!" S" y* somach is very empty) and, *ma nde Aen* (give me soinJ!rhttig"') . To fhe 1atter may be added an appeal for some delicacy, sQch as a piece of tapir or peccary meat, a bit of wild bee honey, or whatever else to eat someone may have around. But since the attention of the Siriano is most frequently and forcibly focused on his stomach, requests for an*y*thing but food are rare. Not infrequently the unlucky hunter, while resting &om an unsuccessful chase, is reproached by his wif e for not having brought home more game, and, invariably, as one leaves for the hunt, the women and children call after him such commands as "Bring me back the leg of a peccary" or "Bring me back some.tapir meat."

Diet

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The environmental and cultural conditions which exist among the Siriano are most favorable for giving rise to a strong anxiety about questions of food. It would seem, in fact, that of all the basic drives demanding satisfaction for survival, hunger is the one most frequently frustrated.The supply of food is rarely abundant and always insecure. *G*ame is not plentiful; the techniques of hunting, fishing, and agriculture are very limited; patterns of food storage do not exist. Consequently, eating habits depend largely upon the quantities of food available for consumption at the moment. When food is plentiful people eat to excess and do little else; when it is scarce they go hungry while looking for something more to eat. Starvation, however, never occurs. There are times that the Indians go for days on a diet of motacu fruits and palm cabbage, but these seem to be adequate for subsistence until game can be hunted. I know of one instance in which a party of Indians survived for eighteen or twenty days on a diet of nothing more than palm cabbage and a few wild fruits collected from the forest. Since they were on the march during this time, and were thus using up a great deal of energy, they exhibited definite signs of undernourishment after their journey.

While I was living at Tibaera, my attention was called one afternoon to the arrival of 7 Indians (2 men, 2 women, and 3 children) who appeared to be especially thin and emaciated. After giving them some food, I inquired as to the reason for their semi-starved condition. One of the men told me that they had run away from the Government School at Casarabe, situated about a hundred miles east through an uninhabited forest and plain that contained no trails, and that they had been without food for ”many„ days. This struck me as strange, inasmuch as the men were carrying their bows and arrows and the lands through which they had come were known to contain considerable game, including wild cattle, which occasionally stray from the herds that wander on the plains of Mojos. Their hunger, it turned out, resulted not from the lack of game but from a lack of fire. Aftei; leaving the .school, they marched at a rapid pace for a day or twQ,to escape pursuit, after which they became so fatigued that while they were sleeping heavily one night their fires became extinguished . Since the Siriono have lost the art of making fire, and will not eat raw game under any conditions, this party was left with the alternative either of returning to the school and being severely punished for running away or of striking out in the direction of settlements which they knew to exist on the Rio Blanco and being rewarded by obtaining fire and freedom. While making the journey to Tibaera, they were reduced to a diet of a few plants and wild fruits which they found along the way, and because of the young children they were considerably impeded in their progress. Thus the journey, which would normally take about six to eight days to complete on .a full diet, lengthened to a period of eighteen or twenty days because of the meager diet on which they were forced to exist. One of the men told me that if they had not arrived when they did they might well have starved to death.

Circumstances like those just mentioned rarely occur, but it is not uncommon for the Siriono to go for several days at a time without eating meat. My notes are full of statements to the effect that there was no meat in camp for periods of two or three days, and when I myself was on the march with the Indians, I passed, in common with my companions, many meatless days. The longest of such periods that I recall endured for four days, during which time we were reduced to a diet of cusi nuts, palm cabbage, and motacu fruits. At this time we were wandering through a particularly sterile piece of high ground on which no game was sighted. When we finally did run across a band of wild peccary late one afternoon, we were

I I all so fatigued that we were unable to give adequate chase and thus bagged only about half as many animals as we might have killed under more favorable conditions.

While first living at Tibaera, I kept records of the amount of game hunted and consumed by the band for a period of three months: during August, September, and October 1941. At this time there were about 50 adults living there, and no meat was being introduced from the outside. During August and most of October I kept the records myself, but during the month of September and the first eight days of October I was wandering with another group of Indians in the forest, and the records were kept by a Bolivian employee of mine who stayed at Tibaera. The daily amount of meat hunted, by whom secured, and "the approximate quantity, i.e., estimated gross weight, were noted. The exact distribution of the meat to each invidual was impossible to record; but the distribution outside the extended family was noted when it occurred. On the basis of the total population, the consumption of meat per individual per day is shown in the following chart:

M onth (1941) Approximate amount of meat consumed per individual per day (inpounds)

August | |

0.56 | September | |

0.53 | October | |

0.36 | After my return from the forest in early October I was accompanied by 94 more Indians, so that keeping records of the amount of meat hunted and consumed by the entire group became so complicated and timeconsuming that I was forced to abandon it. However, the above figures give a rough estimate of the quantities of meat consumed daily by the average Siriono. The noticeable decrease for the month of October was probably due to the fact that the Indians. were more active in clearing land-to be planted in the month of November-than in hunting. Although I have no reliable data on meat consumption for the other months of the year, it is probably less during January, February, March, and April than at other times, because of the difficulty of travel during the rainy season.

The above figures represent the amount of meat hunted by the Indians with bows and arrows. The data, of course, are not strictly accurate, because the weight of the meat had to be estimated and the number of people present in camp was not always the same. During this period some hunters would be gone for three or four days at a time, when it was impossible to keep records of their catch, and on some days perhaps not all of the catch was recorded. *But* even allowing for a large margin of error the avera e n 1an pro a y eats less than a po':llld of meat :per ay.

During the month of August there was no meat in camp for eleven days; in September for nine days; in October for twelve days. The most persistent hunter was out for 16 of the 31 days in August, 12 of the

30 days in September, and 19 of the 31 days in

October. The majority of hunters averaged from 10 to

12, days a month. To be sure, the conditions at Tibaera were not in all respects abonginal. Informants told me, however, and my observations under aboriginal conditions seem to bear them out, that a man goes hunting on the• average of every other day throughout the

I year. On the odd days he rests, repairs arrows, eats

(if he has any food), etc.

While I was wandering in the forest with a group of Indians, when I too was hunting with a riHe and shotgun, the amount of meat consumed by the group rose considerably. I have records on this only for the month of September 1941, a large part of which I spent on the march with parts of two extended families of Indians (21 adults in all) and one Bolivian companion in search of another band. During the first eleven days of the march, when most of the hunting was done w.ith the rifle and shotgun, our meat consumption averaged 2.2 pounds per individual per day. After we had rested several days with another band and continued the march, our meat consumption jumped to

4.1 pounds per day for the last fifteen days. I am inclined to believe that the increase was largely due to the fact that with a rifle and shotgun we were able to bag more big game, like tapirs, crocodiles,

and peccaries, than the Indians would have been able to kill with their bows and arrows. Part of the increase, of course, may have resulted from the fact that we were wandering in areas richer in g.ame than most and that we were hunting every day, but the superiority of the rifle over the bow and arrow was almost certainly a factor. When game was sighted, the Indians would almost always call on my Bolivian companion or me to shoot.

Although meat is the most desit:ed item in the diet of the Indians, it is by no means the most abundant. Maize, sweet manioc, and camotes (when available) constitute a very important part of the food supply. Maize is eaten especially during the months of February and March. By the end of March the supply of

– - *II* maize, except for the few large ears that are saved for seed, has generally been exhau sted. Sometimes, though rarely, maize is replanted in May to be eaten in July and August. Manioc, once planted, takes from eight months to a year to mature. These restless natives seldom sow fields of any size, since they will often not be on hand to reap the benefits. Frequently in the Siriono territory one runs across old gardens containing edible stands of manioc that had been abandoned before the product was mature. When available, however, manioc is eaten the year around. Camotes contitute a heavy part of the diet during the months of July, August, and September. The supply is never great, however, and is usually exhausted soon after the harvest. Papayas are generally available in small quantities the year around because the plant readily grows wherever seeds are dropped. The Indians seldom plant papayas. From their habit of •swallowing the seeds of the ripe fruit, new plants automatically spring up after the seeds are expelled in the excrement. The area surrounding an Indian hut is thus rich in papaya trees.

Supplementing the diet of meat and agricultural products are numerous varieties of wild fruits already referred to, which mature during January, February, and March. These, coupled with maize, supply sufficient food for the semi-sedentary rainy season, when the meat supply is reduced.

Foecl seems to be scarcest at the end of the rainy season (May and June), when there are few available wild fruits and when the waters are still too high to allow exteive migration. It is also scarce at the beginning of the rainy season (November and December) before the maturity of wild fruits and agricultural products.

Food Taboos

With the exception of snakes and insects, almost everything edible in the environment contributes to the food supply.The reason for not eating snake meat, however, does not rest on magical or religious grounds; the S*i*riono believe, since a snake is able to kill b . poi , anyone w o eats snake meat is also 12... fu be po*is*oned. This taboo applies not on y to all poisonous snakes, such as the busbmster and the rattler, but is generalized to include even non-poisonous anacondas, which often reach a length of twenty feet and could contribute considerable meat to the food supply.

I was presented with two favorable opportunities to break down the taboo on snake meat, but in both cases the experiments failed. In the first instance, I killed a bushmaster about eight feet inlength just outside the house..Since I was badly in need of a waterproof pouch in which to carry my powder and shot, I decided to remove the hide and to try to make one. While *s*kinning the reptile, I noticed that it was particularly fat, and since I had no oil with which to keep my arms greased I decided to fry down some snake fat for this purpose. Also, since I had never had the opportunity, I decided to taste some of the meat. I made a point of frying a large steak in front of the Indians so that they could readily observe everything that was going on, and after this was done I sat down in a hammock and ate it in full view of the chief, who had not only warned me not to eat it but who, I am sure, expected me to drop dead at any moment. Fortunately, no ill effects resulted. On the following day I ate some more, but though I tried my best, I was unable to get a single Indian to try a J)iece of the meat.

Some days later I had occasion to bake some com muffins, and since I had no lard at the time I decided to make them with snake grease. After they were done the chief came around, and I offered him one. He began contentedly to munch it. After he had eaten about half, I could not resist the temptation to tell him that the muffins contained snake fat, whereupon he immediately jumped out of the *hammo*ck, put his finger down his throat, and threw up every bit of the muffin he had eaten. For weeks afterward

he reminded me of the trick I had played upon him and was skeptical of eating any food that I offered him until he was certain that the snake fat was gone.

On the second occasion, my Bolivian companion, Silva, killed an anaconda of about twenty feet fu length. Conditions for introducing snake meat at the time were favorable since little game had been secured for several days. But even under these circumstances, although I myseH again set the example, I was unable to convince my Indian companions to try it. They showed no compunction, however, about either hunting or eating the buzzards which fed on the carcass of the snake, and for several days thereafter buzzard became a prominent part of their diet.

Apart from snake meat, bats, and a few poisonous insects there are few things the Indians refrain from eating. Although not constituting a prominent part of the diet, such things as head lice, wood ticks, and grubs are swallowed without compunction.

Theoretically, a man is not supposed to eat the Hesh of an animal which he kills *h*imseH. If a hunter violates this taboo, it is believed that the *animal* which he has eaten will not return to be hunted by him again. Continued breaches of this taboo are consequently supposed to be followed automatically by the sanction

I of ill luck in hunting. This rule may formerly have been an effective mechanism by means of which to force reciprocity in the matter of game distribution, but if so, it has certainly lost its function today, for the disparity between the rule and its practice is very great indeed. Few hunters pay any attention to the rule at all, and when they do it is only with respect to larger *a*nimals, such as the tapir and the harpy eagle, that are rarely bagged anyway. In the case of smaller animals, such as coati and monkeys, I never saw hunters show any reluctance to eat those that they had killed theinselves. Embuta, one of my older informants, told me that when he was a boy he never used to eat any of the game that he killed, but that nowadays the custom had changed and that it was no longer possible to expect meat from someone else who hunted it. It thus seems that through a gradual process of change hunters have discovered that eating their own game -does not necessarily result in poorer luck in hunting but, rather, in greater satisfaction to the hunger drive. The reinf orcing experience of eati!lg one's own game has thus caused a partial breakdown inan old tribal custom.

The few food taboos that do prevail among the Siriono have almost exclusive reference to the animal world. Agricultural _products and wild foods collected froi:n the forest are never taboo; they can be eaten on all occasions, by all age groups, and by both sexes. Free of all food taboos, including certain kinds of meat which are forbidden to others, are the aged, that is, those who have passed childbearing age or possess grown children. Since the Siriono do not practice fasting of any kind, even ceremonially, the aged can thus eat anything at any time. | |

There are, in fact, certain meat foods that are supposed to be eaten only by the aged. These include the harpy e*a*gle, the anteater, the owl monkey, and the howler monkey. Since the aged usually get only the leftovers of other food, the society thus seems to have provided for them in some way by reserving the abovementioned animals exclusively for their use. Under conditions of need, however, I have frequently seen the above foods eaten by people who were not supposed to eat them; only when other animals are relatively plentiful are the taboos strictly observed.

Apart from the above-mentioned food taboos there are .few others. Since these latter will be discussed on the occasions when they prevail, they will not be mentioned here.

Preservation and Storage of Food

The preservation of food is almost unknown. In this tropical climate fresh meat must he cooked within eight hours after it is killed in order to prevent spoilage. The Siriano, moreover, have no salt with which to preserve meat, nor have they developed any techniques of drying and smoking meat to render it edible for more than two or three days. Considering the rude methods by which game is bagged, of course, the catch is rarely so large that it cannot be easily consumed within a day or two. *U,* however, the amount of game is greater than can be immediately eaten, the excess meat is left lying on a low platform under which a lire is kept smoldering to preserve it. It thus remains edible for about three days. But since no hunting takes place when one, has meat on hand, the immediate' surplus is never

r:eplenished. Hen'Ce even under the best of conditions the Indians can never be sure of possessing a meat supply for more than the three days that it can be prese1ved by their crude methods.

Foresight in another respect does exist. On hunting and gathering trips the Siriono like especially to encounter tortoises, because these can be collected and preserved alive over considerable periods of time. Tortoises are relatively abundant in the environment, and a lucky hunter may sometimes return with as many as eight or ten of them, each of which may weigh from eight to ten pounds. They: can be tied up with liana and kept .alive for about a week, thus en• suring a man and his family a meat supply for as long a time. In instances of this kind, one or two tortoises are usually butchered each day. In the meantime the hunter spends his time eating and loafing and does not go out on the hunt again until the supply is exhausted. I have seen hunters who, under these conditions_, rarely moved from their hammocks an entire week.

Maize is the only agricultural product that is ever stored in any quantity. Immediately after each harvest the various families tie their surplus ears of maize (in the husk) onto poles in the shelter. At this time a few of the larger ears are selected and put away in a basket for seed; the rest are gradually eaten until the supply is exhausted. Since crops are never very large, the surplus quantity of maize rarely lasts for more *tha n* a month after harvest. Thus, although two crops may be planted by a f*amil*y during the year, maize is actually eaten in abundace for only about two months, that is,, for about a month following each harvest.

Manioc and camotes are also not stored, nor is the former made into Hour. Both manioc and camotes are dug from the ground and eaten as they mature. When manioc is extracted,. a few of the tubers may be planted at the same time so as to have some plants constantly maturing, but under aboriginal conditions the supply of both manioc and camotes, like that of maize, is never very abundant, and when th crop is mature it is quickly exhausted. It is a rare family that has manioc to eat the year around (Inever knew of one), or camotes to eat for more than a month or two after the harvest.

Wild fruits and other edible forest products ate likewise never preserved or stored. Once the season of wild foods has passed they are not eaten again until the next season comes around.

Wfth respect to the food supply in general it can be said that, except for certain gricultural products like manioc, maize, and camotes, reserves for more than two or three days are never built up. Fortunately the environment offers a constant source of some foods, like palm cabbage, so that even though hunger is often intense starvation is never imminent.

Preparation of Food

Little care is taken in dressing game, which is done either by men. or women. Animals with hair, such as monkeys and peccaries, are first singed whole in the fire, and the burned hair is then scraped off with the fingernails or with a small section of a midrib of a motacu palm leaf. The animal is then gutted with a sharp piece of bamboo, after which the whole carcass is sometimes (but by no means always) perfunctorily washed before it is cooked. Birds are hastily plucked and then singed in the fire and gutted. If an *animal* is small it is usually cooked whole, but if it is too large for a pot (or too large to roast rapidly) it is quartered or cut up into smaller pieces with a bamboo knif e. Armored animals like the armadillo and tortoise are usually thrown in the fire and left there to roast in their shells. Fish are never gutted before they are cooked, nor are the scales removed.

The division of labor as regards cooking varies a great deal, depending upon the circumstances under which the food is being prepared. Everyone knows how to cook even young children.

1 | |

Cooking is an art learned very early in life. When traveling with his mother and father, a child is often given a cob of com to roast, some motacu fruits to

.roast, or a morsel of viscera to cook .for himself . In fact, whenever animals are being cut up, there are always young children (as often boys as girls) around, waiting for some tidbit which they th n•take to the fire and roast for themselves. Such morselsthey share with no one else.

While in cam , when the rou • is _f 4"ly seed, most of *e • e b* the women. This is especially true if the preparation of the meal involves the grinding of maize or other vegetable products that are sometimes

mixed with the meat and cooked in a pot. On the march, however, when po-ts have been temporarily stored and when most of the food is roasted, the men take as active a part in cooking as the women. In fact, the roasting of meat often falls entirely to the men, especially since they may be off

.on the hunt several days without the women and thus be forced to barbecue the game -before returning to eamp.

No condiments of any kind are used in cooking.

Even salt (no deposits of this.product are found in the area) is unknown to the Siriono living under aboriginal conditions. Evidently the foods they eat contain enough salt to produce the hydrochloric acid necessary for digestion.

I introduced salt to some Indians for the first time, and they expressed a distaste for eating it. By using small quantities in cooking, however, they soon developed a craving for it. In some instances this: craving (once the Indians have become accustomed to using salt) has become so great as to become an importantfactor in establishing and *maintaining* friendly relations with the whites. The late Frederick Park Richards, an American cattle rancher living near El Carmen, who was one of the first white men to establish permanent relations with the Siriono in the Rio Blanco area, told me that when he first came to the region in 1912 he was able to maintain peaceful relations with the Indians for years before they permnently -settled down with him on his farms in 1925 by conditioning them to eating salt. I myself, however, have traveled with primitive groups when all of us went without salt for as long as 43 days without suf.. fering any apparent illeffects from such a diet. -

ActuaUy little emphasis is placed on the preparation of food. Depending upon the time, place, type, and quantity _of game, it may be roasted or baked ip the ashes of the nre, broiled on a spit or babracot, or boiled or steamed in a clay pot. Some vegetable foods, such as maize, are prepared by grinding before they are cooked, and, of course, many nuts and fruits are eaten raw.

The following is a list of foods and how they are l'repared.

Foods

Meats

Fish

Maize

Manioc

Camotes

Papaya

Palm Cabbage

Motacu fruit Nuts

Coquino fruit

Chonta fruit Aguai fruit H.indoera fruit Gargatea fruit Pacay fruit Cacao fruit Ndia fruit

How Prepared f or Consumption

Never eaten raw; always broiled, roasted, or boiled; sometimes boiled withmaize, manioc, or camotes.

Never eaten raw; almost always roasted on babracot with scales and guts;sometimes Boiled.

Never eaten raw;roasted inhusk when young and tender; roasted on cob when mature and hard; sometimes ground up and boiled with meat or made into cornmeal cakes.

Never eaten raw; peeled and boiled, sometimes with meat;roasted in peel in hot ashes.

Never eaten raw; boiled inpeels, sometimes with meat; usually roasted with peels inhot ashes.

Always eaten raw.

Eatenraw but frequently boiled with meat.

Never eaten raw; always roasted. Always eaten raw.

Always eaten raw. Always boiled.

Always roasted. Always roasted. Always roasted. Always eaten raw. Always eaten raw. Always eaten raw.

Eating

It is difficult to establish a schedule of meal hours among the Siriono because of the insecure nature of the food supply and the nomadic character of life. People eat when they have food, and under these conditions they are just as apt to eat during the night as during the day. In fact, more food is con*s*umed at ni*g*ht than at any oilier time because hunters and col

,Iectors are away from camp most of the day and for-> reasonswhich we shall e*x*amine ina,moment.

–The princi al meal is always taken in *t*he late afternoon or early eve*n*ing. er eating is main y o e between-meal type, *a*nd occurs at all hours of the day or night. I was constantly su.rprised to find, throughout my residence among the Siriano, that food which had been left over from an evening meal was invariably gone by morning. Frequently, moreover, after the evening meal has been eaten, a pot of food is put on the fire to cook during the night, and this, too, has usually disappeared by morning.

The habit of eating during the night grows not only out of the necessity of hunting and collecting during most of the day but also out of a reluctance to share food with others. When meals are taken during the day, a crowd of non-family members always gathers to beg for morsels, and though little attention is usually paid to them, they do, nevertheless, constitute an annoyance. By eating at odd hours during the night, when nearly everyone else is asleep, an Indian not only gets more food but also avoids the nuisance of having .others around to beg it ftom him. While I was on the march with the Siriono, my Bolivian companion and I were forced to follow the same practice.

We found that it was impossible to eat in peace during the day, because we were constantly hounded by children and adults who e*J*aimed that they were hungry. The fact that we too had not eaten ..made no impression on them. Consequently we ate the greatest portion of our food at about midnight when almost everyone else was asleep. A few of my loyal Indian companions, who developed a certain interest in my welfare, used frequently to wake me in the middle of the night to share food wliich they hated to display during the *day time* because of the possibility of their having to divide it with. someone else. When we were settled-I then sometimes had a supply of certain foods

it used to amuse me.to note how my Indian friends would suggest that they come to my house and eat at night when the others would be fast asleep. _

Strictly speaking, the Siriono possess no eating utensils. A broken ca1abash may sometimes be used to scoop food from a pot or even to eat from, but such utensils as plates and spoons are not manufactured. Generally speaking, everyone participating in a meal eats from a common :got. Chunks of meat, pieces of manioc, and the like are picked out of the pot with the hands, but when the meal consists of gruel or a soup the food is generally scooped out of the pot by using half shells of motacu fruits as spoons. Food is also sometimes distributed for consumption by pouring it out on leaves of patuju, a plant resembling the banana. The distribution of food rarely goes outside the extended family. Within the extended family, however, the distribution of food does not follow any strict pattern. E ch nuclear family ooks its own fooq. ... and the head of tlie house usually gets the back _of an animal; his lirst wile the two hind -leg=s-. O–th'-er parts of an animal are usually distributed without reference to status within the family.

Eating talces place without benefit of etiquette or ceremony, Food is bolted as rapidly as possible, and when a person is eating he never looks up from his food until after. he has finished, so as to avoid the stares of begging onlookers. e principal goal of eatipg seems thus to be the swallowing a£ the greatest quantity of food•in the shortest possible time.

• Appetites for particular foods are few. There is a preferenc_e for meat over all other foods and a preference for fat m-eat over lean meat, but the cookbook of the Siriono is almost devoid of recipes. I have seen a man eat hawk with as much gusto• as partridge, and

Inever heard an informant speak disparagingly about any food regarded as edible by the Siriano. .

The quantities of feod eaten on occasion are for.midable. *It is not uncommon f or f our people to eat a* peccary of 6o pounds at a single sitting. When meat is abundant, a man ;may consume as much as 30 pounds within *24* hours. On one occasion, when I was present, *.z* men ate six spider monkeys, weighing from 10 to 15 pounds apiece, in a single day, and complained 0£ being hungry that night.

Narcotics

The only narcotic used by *t*he Siriono is tobacco *(6ro) , w*hich is smoked in clay pipes, whose *m*an" facture has already been discussed. *l}oth the men* and t .• en smoke, althou h it is alwa s the_ lattei:... wJio make the pipes *eakwa)* anf! prepare _!he tobacco. Children do *not smoke until af ter they Eave*

!eached the age of puberty.

Just when the Siriono adopted tobacco is not known> although it certainly does not seem to have been aboriginal with them. As aiteady mentioned, one of my oldest *inf* ormants said that it was received from the whites while he was still a child, which would date its adoption by this particular group of Siriono at some time within the last 60 or 70 years. (The literature tells us nothing on this point.) Other inf ormants at Casarabe, however, told me that when there was no tobacco available other leaves wei:e smoked, but what these were I was never able to qetermine. The forest Siriano with whom Ilived at Tibaera saved seed and planted tobacco regularly with the rest of their crops, and they smoked no other kind of leaf . Wild tobacco, moreover, does not grow in the area.

Af ter the leaves of tobacco have become mature they are picked by the women and are slowly dried on a small mat, made from the heart leaves qf the motacu palm, which is placed on supports over the fire. Once dried, the leaves are powdered in the hands and the tobacco is ready for smoking. The supply of powdered tobacco is stored in a small calabash, which is topped with a piece of corncob.

All smo*kin*g is done in the house. It is considered bad f*o*rm to smoke while on the hunt, as it is believed that animals will be dnVen away by the smell. Most smoking thus takes place while resting in the hammock or during drinking feasts, and hunters almost always smoke imme*d*iate*l*y after returning from the forest to stave off hunger until they are given some food.

The pipe is filled and lighted by placing a small live coal on top of the tobacco. The pipe is grasped by the stem (the bowl gets vety hot) with either the right or the left hand. When smoking, the head is slightly tilted back, since the pipe stem protrudes downward from the bowl. Th.;e:;.,.s:m:;:.:•:o:.:k;:;.ei:::...,..i::s:;...:s;;..ui c-k=;e.;.;d.::...i.:n.t:.o::...t..h:::.e::::.m.=o.u.th: only (no inhalation) and is blown <)Jlt inshort rapid puffs by withdrawing the _pipe d extending tpe lips;

When there are several people around, the pipe is passed from one to another. When the pipe ceases to draw well, it is cleansed with a straw from a heart leaf of a motacu palm.

The Siriono do. not seem to be much addicted to the use of tobacco. However, its role in the drinking feast is itnportant in aiding the participants to arrive at a semi-drugged or partially intoxicated condition. During the drinking feasts for women I often heard them singing impromptu songs about pipes and tobacco, which indicates that this drug may have some further magical significance that I was unable to ascertain. Tobacco, however, is never used therapeutically.

Drinking

Since the Siriono wear no clothes, and consequently perspire little., they are able to withstand long periods of time. without water, :fhirst, moreover, *is almost* nev:er a _problem to them:because wherever they wander the can find wa*tei: holes* or streams frpm which to drink, .and if one cannot be found thete are *a • ost* always llanas and stems of plants, from whi*cL* a considerable water SU ply can be o'6taineq. Consequently

1:1-!e Indians rarely parry water with them w en e.y are on tfie *m*arch.

At campsites, water is brought to the house by women or children incalabashes or in sections of bamboo, which also serve as drinking vessels. If a thirsty Indian comes upon a water hQle while inthe forest, he plucks a leaf of patuju to drink from. In doing Qlis once in the company of Kenda, one of my youthful inf ormants from Gasarabe, I inadvertently dropped my leaf into the water whea I had finished drinking.

He snatched it up and threw it away in the forest, saying that the le.3f of the patuju contained an evil spirit and that if one threw his leaf into the water after drinking one would become sick. Although the ideas about water and thirst have not been crystallirzed. to a point where I was able to-get much information about them, did observe that all Siriono,followed this practice-when drinking from holes in the forest.

Accompanying the frustrations of forest life are occasional drinking bouts, w.hich vary in frequency with the quantity of wild bee honey available. Since this product is most abundant in the dry $eason-after the flowering of the plants and ti:ees-most of them thus occur during the months of August, September, October, and November. ead is made from a *m*ixture *of c*ooke om _mal (coo e manioc or coo .ed cal)lotesJ ' water, *n_ d wil ...*_ nee lioney.=, It s always 'made by the wqmep. -The maize is first gro*und* np fine in a mortar. '.The com meal is then mixed with watey and boiled in a clay pot until it becomes thick gruel. The.hot gruel (not. tnasticatd as by many South American .Indians) is: theµ emptied into calabashs (containing only a small round hole at the top), each of which is about haH-6.lled with cold water, until they are filled to about four fifths of thek capacity. Mter the gruel and the water have been thor oughly mixed with a small stick, about a half a cup of wild honey for each quart of mixture is added to the calabashes. The honey is. then stirred into the mixture, and the holes of the calabashes •are loosely stopped with leaves of patuju to keep out flies and to allaw some air for fermentation. The calabashes are then stored (undisturbed) in hanging baskets for bout three days, when the brew is considered to be of suffi cient foce (*about* the strength of beer) to be. drunk.

In making other, tY.Pes of beer the same_ process is _ followed, the only ilifference being that •manioc (or camotes) is substituted for maize in making the gruel. To increase the strength of the beer, to make it mpre nourishing,. and to hasten the fennentation process, boiled or baked corn-meal cakes are sometimes addd to the brew.

Calabashes are considered to be the most suitable type of ves el for, fennenting native beer, although when there was a shortage of these vess.els Iobserved that it wasfermented in long sections (:)f oamboo.

The making of mea is accompanied by consider able excitement and bustle. Great care is taken to see that the mixtureturns. out all right. There are always plenty of ehilaren present hoping to get a bit of the honey, and the women usually do not. lack helpers, since jealous neighbors, generally unt!o-operative, of , fer their services on the hop.e that they too will get a chance to partake of the honey while the mead is being made. More often than not they are brushed off and return to their hammocks unrewarded.

Qrinking bouts usually *s*tart *onnajly._ Tu e man.*

P.QSSessin tlie Ilguor in t,es_ a.n mber„,,Q !ii m Ie r I tives to join•him_ in cgnsuming what be r he may ,!i:3-e off hand. Bouts genralfy s art in lhe .afternoon, apd, de *endin u on the* quantity•of lfquor available, m y last until far into the m ••. - 6e c*ontinue*d on th• following day. The. *p*arti*ci pa* squ t in -a circl near the host;s hammock and, as a calaBash of mead is passed arouncl., each in his tum drinks heavy draughts before passing it to the next person in the circle. The drinking.is always accompanied y continal•smoking of cla . • i es also assed around the cir cle)i which *?*.tiplately 9_ontrib1.1;tes as•m c. or_ ore-o• the resulting intoxicated or drug ed condition as does t1ie ew a g t *a*nd nourishing native beer.

As a drinking feast 2rogesses, he Siriono, who _! very 11n90µt!flunicativ;e fello,w when„sober, be-comes._ , n animated conversatio*nali*st*, a erf mer and a brag* rt./l.t e opening of the bout the talk usually turns-• to the merits of the liquor. One of my more poetic informants, Eresa-eanta (Strong-eyes), used to say, in describing the liquor at the start of almost every drink ing feast: "Yesterday it was without force, like water or like earth, but today it has great strength." As the effects of the drinking

and the smoking begin to be felt, one or more of the participants breaks out in song, usually impromptu and related to some exploit of which he is particularly proud, such as the killing of a tapir or a harpy eagle. Another may be engaged in dis cussing the desirability of looking for a new wife (al ways a young one or *yukwaki)* or of casting out the shrew he now has. As the mood gets mellower every one joins the singing, and when the party has reached an advanced stage almost everyone is singing a differ ent tune at the same time.

While attending these drinking feasts, I tried my best to record a number of these songs, but I was never able to set down more than snatches of them because of the bedlam and the darkness existing at the time. Moreover, since most of the participants, following a drinking bout, were victims of alcoholic amnesia, brutal hangovers, and high anxieties, it was impossible to get much co-operation from them in this matter later.

At every drinking feast of any size most of the non participating members of the group are assembled at the edge of the circle. The spectators amuse them selves listening to the songs and the conversation, commenting on the course of the feast, and waiting for the participants to get d.runk enough so that they can sneak a drink now and then. Children are always present, eagerly awaiting the emptying of a calabash, since it is then passed to them to drain the dregs. The women are almost always in the background watching over their husbands, because they are quite certain from previous experience that the party will end in a brawl. This is always the case when there is sufficient liquor. A man deep in his cups will tum to another (it may be his brother, his uncle, his son-in-law, or even his father-in-law) and insult him with some such phrase as *"Et6mi tutindo"* ("You are very lazy") or *"Ai £ tende gattl'* ("You never bring me meat with any fat on it"). He will be answered in the same vein, and a fight will soon break out. The Siriono do not fight with their fists at this time; physical aggression is expressed in the form of a wrestling match, in which one participant tries to throw the other to the ground again ancl again until he is too exhausted to rise. Since the contestants are usually so drunk that they can not stand up, these wrestling matches frequently ter minate with both of them passed out on the floor, much to the merriment of the spectators. Not infrequently, however, one or the other (or both) falls into one of the innumerable fues in every Siriono hut and gets badly burned.

When the party reaches the fighting stage the crying women intervene and try to stop the fights. At this time they too come in for their share of aggression and not infrequently are struck forcibly by their hus bands. However, I heard of only one case in which a man murdered his wife in one of these drinking bouts. This happened approximately fifteen years ago, the wife being shot through the heart with an arrow. Althaugh overt agg:ressi9n runs•high . ,during drinki.ng. feasts, after they are over the participants usually sup press •their angry feelings within a few days' timei and all is normal again until another .drinkipg bout takes place. In so far as I observed little.sexual activity takes• place during or immediately after drinking feasts. Participants are usually too drunk to inulge iI.l s,ex. •

When a consjderable supply of honey is.•.available, drinking bou are•.timed so as to take place every f ew dys until all the liquor is gone. For lack of honey, however, not more than a dozen e likely to occur during the year. A man who has gj.-ven a Jeast expects to be invited to and is expected (wants) to ttend those given by the people who participatea in his. As most of the people 'Ylio take part in these feasts are near relatives, this almost always happens.

Inonly one instance did I notice that the aggres-sions - of the drinking f asts wre the iret cause of strained relations for .a long period of time. During a bout in ugust 1941, Eantandu (Father-of-Strong-one), a chief, insulted -and wrestled when. dti.liik with •Eresa eanta (Strong-eyes) f his brother-in-law, or f ther's si ter's son, over guestions of food. Eantandu •when •drurɹc told Eresa-eanta tha.t he never brought him ,any •food, that he never hunted spider monkeys, that he was lazy, that he was evil, etc. Although neither partici pant knew much about w,hat he w doin_g a wres tling match ensued in whicli .Ers-eanta got badly burned in the fire, and he was.unable to get oɹt of his hammock for several days. As a result of tbis fight, about which Eresa-eanta was later told hy •his wiV:es and brothers, strained relations ,persisted until January

!942, when I first saw the two together ag,ain .at a drir;tking feast given byEantaJ!du–0ne which, inei-• dentally, did not end in brawl as the liquor •ran out.

After recovering from the first drinking feast;Eresa eanta with a couple of his. brothers and their families remained away from the band for long pel'iods of time, hunting, fishing, collecting, and attending their gar dens at a nearby lake. Although the party returned to Tibaera from time to time for a few days or a week, Eresa-eanta would have no• relations whatever with Eantan.dq, although. their respective, wives were friendly enough. .After relations had been re-estab lished at the second drinking feast, however, the two continued on friendly terms.

:Cike the men, the women too have their drinking feasts, but these do not usually terminate as roughly as those of the men. In five of these feasts whichIob served; singing was the prominent feature, apart from

. the dririkil1g• and smoking. Although the women ac cused •each •other•0£ having •had sexual relations with one another's husbands, :most of them had reached such .a:n intoxicated condition by the time these ac cusations were made tht they were. placed in their hammocks to sleep it.off.

In only one instance did Iobserve mixed drinking. This involved 3 old women and their husbands and brothers. On this occasion, however, only a few cala bashes of mead were available, and the party was not organized in any way.

Chapter VI. ROUTINE ACTIVITIES OF LIFE

Daily Round

"*EARLY* to bed and earl to *rise„* is th

Siriono, who usua y retire to thell' barn . cks as SQQ!l

s nig t a s an . re up and_ abqut before tl!e rack of dawn. Actually their day begins a couple of hours before dawn. Retiring as they do about seven or eight o'clock in the evening, they are generally

awake by 3 A.M., when they begin to sing impYomptu songs as they engage in the routine of roasting a cob of maize, a piece of manioc, or some camotes, or of *w*arming up a pot of food left over from the night before. Such activity is continued until daylight, by which time they have eaten and the day's work has begun.

In the early morning a SirionQ hut must be ap

proached with caution so as to avoid stepping on the innumerable piles of excreta that have been freshly deposited just outside the house during the night. Al though adults retire to a respectable distance from the house to defecate during the day-there are no special latrines-their nightly behavior in this respect is re stricted by the intense darkness, the annoyance of in sect pests, and the fear of evil spirits, and they seldom go very far from the house. Moreover, the excreta are rarely removed the following day, but are left to gather *Hies,* to dry up, or to be washed away by the rain.

Thus after a few weeks' time the immediate environs of the house become rather unbearable to the unac customed. The only care taken in this respect is to avoid defecating directly in the house, on the trails leading out from the house, or within about ten yards of a water hole.

Except when defecating at the same time, both men and women stand up to urinate, although the women spread their legs apart and lean slightly forward so as to spill as little urine as possible on their legs. Both sexes squat to defecate. After finishing, they usually back up to a sapling, spread the buttocks apart; and rub the anus up and down on the sapling to clean it. In case a sapling of the right size is not at hand a stick may be employed for this purpose. I never saw leaves or grass used as toilet paper except in the cas.e of children.If a person gets a call during the night he may not clean himself at all before returning to his hammock.

The activities of the day begin with little ceremony. Such health and cle*a*nliness measures as washing the teeth, face, or hands, or combing the hair, at such an early hour of the morning are quite unknown to the Siriono. True, one may go to the hole or a brook for water early in the morning, but it will be used for drinking or cooking. Moreover, at this time of day al most no attention is paid to one's neighbor. This is. clearly reflected in the native language, which .con tains no such salutations as good morning"" or ""good night;" and it is rare to ask a neighbor how he slept the night before or to inquire of a sick relative whether he has improved during the night. Most early morning preoccupatians, in fact, revolve around the happen ings in one's *i*mmediate family, *w*ithin which, however, neither loud conversation nor squalling children ever" seem to be lacking. Especially are *c*omplaints regis tered: one may have been bothered by mosquitoes the night bef ore; another may have been bitten by a vampire bat; a third may have burned himself, having fallen out of his hammock into the fire during a nightmare.Not uncommon are such general complaints as that one was unable to sleep because *mbia* (coun trymen) kept him awake with Joud and frequent farts during the night, or that one was kept awake by the "dancing" of the house caused by continual *cuki Mki* or sexual intercourse. Such gripes as these invariably call forth laughter from the rest of the group, and I was constantly warned not to sling my hammock to the house poles lest the rocking from *cuki cuki* keep me awake during the night.

On a typical day, when settled or on the march, the men are off to hunt at the break of day. If they have not had time to eat before they leave, they may take with them a piece of roast meat, maize, or manioc to munch as they g-0 along the trail. When men remain at home, they usually occupy themselves in repairing arrows, making bows and digging sticks, etc. If the band is fairly settled at the time, the men hunt in all directions from the house, but iithe group is on the march, the hunters usually proceed in a circuitous route through the forest in the direction of the camp ing spot decided upon for that night. In any case,the women are usually left behind to care for the children and to carry out the routine household duties, or, if on the march, to pack up the gear and transport it to the next camping spot. As camps are rarely moved during the rainy season, and not more often than every ten days or so during the dry season, a partial stabil ity is maintained over considerable periods of time.

While the men are out hunting, the women may be occupied in any number of routine household tasks, such as bringing in firewood, grinding corn, cooking, weaving baskets or mats, coiling pots, drying tobacco, or repairing hammocks. The women also ,devote a con siderable part of the average day to the *spin ning* of cotton string, which is extensively used in arrow making. Since most of these household duties are pur sued around the hammock and the fire, gossip and conversation are freely indulged in throughout the day, and there is almost always a pot ef something cooking on the fire with which the women and children nour ish themselves while the men are gone.

The men usually return from the hunt between four and six o'clock in the afternoon. Some type of food has already been prepared awaiting their arrival, and while the men are eating, the women occupy them selves in dressing the day's kill for the evening meal, which will be eaten as soon as it can be cooked. If darkness has not -descenaed, a bath and sexual inter course frequently follow the *d*inner, after which the Indians retire to their hammocks to smoke, play with the children, and talk until sleep overtakes them. Fa tigued by a day of work or of walking in the forest, most members of the camp are asleep by eight o'clock, unless there is tobe a dance or a drinking feast.

Work and Division of Labor

Labor is not a virtue amon the Siriono. They are relative apa etic to work (*taba a* , which includes such distasteful tasks as housebuilding, gather ing firewood, clearing, planting, and tilling of fields. In quite a different class, however, are such pleasant occupations as hunting (*gwata gwata)* and collecting (*deka deka,* "to look for"), which are regarded more as diversions than as work. This is not to be wondered at, since these latter pursuits are more directly and immediately connected with the urge for food than are the more distantly rewarding labors of agriculture.

What seems tG be true, to put it pgh,o ogi_cally, is... t,ba t the responses of hunting, fishing, and collecting have been and are more immediate*} r* • n those o*f agncl.l* .

W*hen* food, especially meat, is plentiful, little work is perf ormed. What people like best to do at this time is to lie in their hammocks, rest, eat, indulge in sex ual intercourse, sleep, play with their children, b groomed, sing, dance, or drink. Free time is rarely em ployed in improving the house, albeit rain is expected, or in enlarging a garden plot, although the supply of food is insecure. When the immediate needs for food have been supplied, one is neither much criticized for doing *n*othing, nor much praised for occupying his time in constructive labor.

Besides the immediate desire and necessity for food, the incentives-to labor are few. No prestige is gained by building a better house or a larger garden, both of which may have to be abandoned on the next move. It would seem, in fact, that the nomadic character of the band is the principal reason for not working, because the results of one's labor can rarely be car ried with one.

The nuclear family is the basic work group. Although considerable co-operation in the performance of duties takes place between members of an extended family, there are few tasks whose performance necessitates the co-operation of all members of the band.The near est approach to such co-operation occurs when the band is on the march-when a new campsite has to be cleared or when a new house has to be built. But even in carrying out these tasks, members of an extended family join together to clear the part of the site which they will occupy or to build that section of the house where they will live. Inthis simple society the ties of kinship are strong.

Within the family, the division of labor follows nor mal lines of age and sex, except that the duties per formed are neither as highly diff erentiated nor as sharply defined as in many preliterate societies. The peculiar circumstances prevailing in this environment and culture sometimes demand that a person per form temporarily, at least, tasks that might otherwise be delega.ted to the opposite sex. Thus, althougl1cook ing is normally the role of a woman, when the men are *oH* on the hunt it is they who must barbecue the meat. Similarly, although basketry is the art of women, men must sometimes make baskets in which to carry home game.

On the whole, however, the sex ivision of labor follows the pattern presented in the chart on the fol lowing page.

Travel and Transportation

Although rivers and lakes abound in the territory traversed by the Siriono, all movement and transpor tation take place on foot,overland. Considering that the water courses are extremely abundant, that the Siriono are constantly crossing rivers and streams in tl1eir wanderings, and that there is no lack of excel lent materials in the environment from which to build canoes, it is surprising that they have remained unique, as compared with their immediat*e* neighbors, in not constructing watercraf t of some kind. Even though they are not a river people-their camps are usually located inland-the number of lakes and streams in

Activities Men and Women Women M en
Collecting x
Clearing x
Planting x
Tilling x
Harvesting x
Dressing Game x
Burden-carrying x
Cooking x
Caring for Children x
Spinning Thread x
Twining String x
Twining Bowstring x
Twining Hammocks x
Twining Baby Slings x
Carrying Water x
Collecting Firewood x
Extracting Clay x
Pot-making x
Pipe-making x
Weaving Mats x
Weaving Fire Fans x
Weaving .Baskets x
Making Mead x
Preparing Feather Ornaments x
Stringing Nec;klaces x
Cutting and Depilating Hair x
Hunting x
Fishing x
Felling Trees x
Extracting Honey x
Weapon-making x
Tool-making (Spindle,
Digging Stick, etc.) x
Housebuilding x

Bridge-making x
Re.fining Beeswax x
Preparing Utensils (Calabashes,
Mortar and Pestle, etc.) x their territory would seem to justify the use of water
.craft, not only as an adjunct to foot travel, but as a means of augmenting the food supply as well Since much of the activity related to the food quest, during the dry season particularly, centers around the lagoons and streams, canoes would be of great advantage in lishing and in stalking waterf owl. It would seem, in fact, that the lack of canoes can only be explained by such hypotheses as that they have never tried to build tbem or that attempts to build them have proved un rewarding.

The trails (*iienda)* over which transportation and hunting take place are not built; they simply grow up from use. A hunter may strike out in a general direc tion through the forest in quest of game, and as he follows his meandering course, avoiding dense growths of underbrush where travel is difficult and g-0ing around fallen trees that may impede his progress, he bends over a few leaves and twigs. In his travels he may encounter a water hole, a stream, or a lake where hunting is good, and if this be the case, he may return again and again to the same spot, sometimes with his tribesmen, until by frequent use a new trail is formed. When a new campsite has been settled, trails grow up rapidly as a result of hunters and collectors making food reconnaissances in all directions from the house. Those routes yielding game are traversed again and again, while those proving sterile are immediately abandoned.

Trails are never cleared and are very poorly marked. About every fifteen feet or so a small plant or a piece of brush is bent over to the right of the direction in which one is proceeding. Thus one can always tell in which direction the trail runs or was made. Except in the cases of trails which -connect one campsite with another, the network of trails roughly follows the pat tern of a wheel. With the campsite as the hub, a trail goes out along one spoke and returns by another. A great deal of crisscrossing and overlapping, of course, do occur.

It is impossible for the uninitiated to follow these rude paths. Since most Indian hunting trails lead out from a hut and back to it, one must make many sterile attempts, intrying to trace the course of a band from one abandoned hut to another, before striking the path that connects two houses. Even when I was trav eling with Indians of the same tribal group, I found that they too were never sure whether a newly dis covered trail was an abandoned bunting trail of an other band or whether it might actually lead us on to the spot where the band was settled.

When • oR the march the India!). do not moe great
distances in a single day. The lack of *g*ood roads, llie necessity ol *crossing* swamps and streams, the impedi ment of young children, who must be carried or who cannot walk rapidly, the burden of the gear-the ham mocks, the pots, the baskets, the calabashes, the food, etc.-all hinder progress considerably. When lack of food or water forces a band to move they usually average not more than eight or ten miles a day, and since they stop to rest, hunt, and gather at each camp ing place, movement of the entire band does not usu ally take place more often than every four or five days. Unless there is some definite objective toward which the band is traveling, they exhaust the wild life of an area as they travel.

While I was living with a band on the march for about six weeks during September and October 1941, while they were traveling from a campsite northeast of Yaguaru, Guarayos, to Tibaera on the Rio Blanco, it took them about a month to travel about a hundred miles. Movement of the entire band took place on the averge of every three days. There were nine camps between the starting point and the objective, which means that on days when movement too1c: place ap proximately ten miles were covered. It is difficult,how ever, to make any generalizations as to the amount of travel done by a band, since so much depends on the food supply in the area. Some camps may be aban doned within a few days' time, while others may be occupied for more than six months. I visited some fifty sites that had been variously occupied and aban doned during the past twenty years.

The amount of band travel, however, cannot be taken as a measure of the amount of travel done by individual hunters or by family groups. Hunters may cover as many as forty miles a day in their quest for game, and when nuclear families are away from the band on hunting and gathering expeditions, they

too may travel great distances in a single day.I have made trips with a man, his wife, and young child when we walked as many as twenty-five miles in a single day.

When on the move, men co-operate with the women in carrying the family burdens, which are packed in carrying baskets woven from the green leaves of the motacu palm. These baskets are carried on the back, being suspended from the head (women) or shoul ders (men) by a tumpline of liana.

Considerable weight may be transported by these methods.The *a*vera*e pack f or* ***a roan or*** *woman runs* around s or seventy pounds. When meat is being transported in from the forest, I have seen a man carry up to two hundred pounds on his back for a d,istance of ten miles without exhibiting a great deal of fatigue.

When traveling or burden-carrying, however, brief halts are usually made about every two hours for pur poses of resting.

Young children are carried by the mother in a sling which is slung around her shoulder. The baby sits in the sling with its legs astride her hip. When marc*h*ing in the forest a man may sometimes relieve a woman in carrymg •the *c*hil*d*ren, 6ut he will never enter camp carrying "te*inal*e possessions."

.._ On fhe *m*arch the men, with their bows and arrows ov .er their shoulders, go ahead of the women. If game is sighted they temporarily drop their loads and give chase. By the time the next camping place is reached, they have generally killed some animals for the eve ning meal

In walking over the narrow paths, the Indians march in single file and walk with the toes pointed inward at an angle of about forty-five degree to pre vent sticks and thorns from bruising the tender skin between their toes. Bec*ause of this habit, the Si.tj.ono*

. ve become a really pigeoii-to d people. .,.,._ _

Although no type o waterer t is manuf actured or used, rivers, swamps, and streams offer little hindrance to travel except during the rainy season, when most of the country becomes one continuous body of water. But as aheady noted, little movement takes place at this time. Even in the dry season, however, there are brooks, streams, and swamps to cross in every days travel Since the bodies of waters are low at this sea son, most of them can just be walked through, but if the water is found deeper than tl1e height of ones head other means of crossing must be resor:ted to.

The most common method of crossing a deep stream is to fell a tree from one bank to the other. If the stream is fairly wide, a tree may be felled from either bank. If this does not prove feasible, a heavy liana may be tied to trees on both banks-one individ ual swims across with the liana-and the people pass from one side to the other by going h,and over hand along the liana, the body 'being buoyed up by the water. It *is* interesting to note that d'Orbigny (1839-47, Vol *4,* pp. 343-44) first called our attention to this method of crossing the rivers more than a hundred years ago. When waters are not too high to walk, bur dens are generally placed on the head to keep them dry, and the children are carried astraddle on the shoulders.

A great many streams become st*a*gnant during the dry season, and are covered with a dense blanket of water grass. These growths are usually so thick that one can walk quickly over their tops without sinking into the water below. But for aid in crossing such streams saplings or bamboos are sometimes laid on top of the grass soas to make a temporary bridge.

When all other methods prove to be of no avail in crossing a river or a stream, swimming is resorted to.

The S*iri*o*no are* excellent swimmers. They swim with a. c,rawl stroke, as well as "dog'."fashion.', In spite of the abundance of palometas and crocodiles, every child of eight knows how to swim.

Finally, it should be mentioned that in crossing deep rivers or streams, people usually cover their genitals with one and so as to protect them from the palometas which infest all these waters. They also step with care so aSto avoid stingrays, whose stabs leave nasty wounds.

Art, Music, and Dancing

Art, apart from the song and dance, has remained at a very backward level among the Siriono. Beyond the stringing of necklaces, the pain,tirig of the body (without design), and the• de¢oratiort

of hair with feathei:s, no attempt is made_ to embellish anything. Most objects of the culture, in fact, seem to have ea. purely utilitarian reason for existence. Pottery is not

t only rude but plain. Such things as bows and arrO\.VS and calabashes are :p.ever decorated. Moreover, the idea of portraying some aspect of tl1e culture, realisti cally or symbQlieally, by drawing, painting, or scu1p tQre is completely foreign tQ these Indians.

What has ben said of art can. also be said of the. instrumental aspect of music. Not *a* single •type .of musical instrument *is* known. Not • even such *r*hythm beating instruments as rattles or • clappers are em

_ployed, nor is anything ever hung on the body .to•m.ake | | he culture. | . • | | | noise to accompany singing or dancing. All music, in fact, is vocal. Singing does, however; play an irnportant ro.le in*t* arly morning singing, which . makes it impossible.

{Q_r anyone. to sleep after 'it starts•, is a deflnit part-of each day's routine, especially when •the group is s ettled for any Iengtii ol.Jime, as they were at 1'ihaera. Even on the *m*arch; or :wfieri• a *m*an js out alone with his family, this practice is followed. Eve;ryone sings. q'he songs are monotonous improinptu chants, which sometimes have .reference to some aspect of the food quest. From some distanceaway, the) early morning chorus sounds not unlike a group of howler monkets

,heralding the day from the top of some distant tree.

When I was first with the Indians I forced myself to leave• a comf ortable hammock and mosquito net many times at about .3 A.M. ., and, with flashlight, pencil, and notebook in hand, made a sincere effort to record some of this early morning music. After a . eries of un rewarding attempts, however, and under extremely | | u,npleasant conditions, I ,allowed .. the Indians to greet the df!Y.•withoui the ri1Jisa:hce of iny presence. My in,. (on;nants all told me, however, that the songs had no meaning,_and, as far as the words were concerned:I am inclined to believe that this is true. In discussing the -question with Abraham Richards, the son of an American cattle rancher who was born: and raised with a group of Siriono oil his father.s cattle ranch neat', El Carmen, he told me that he also was never able to make any sen.se G>ut of these early morning song$1 However th.at rpay be, on inquiring .of inform ants as to wh they always greeted the day with son s ne of two reasons Mll:!,:S a ways given: ei er *t*hey were happy or t •ey were. •. e • . e ir • Ha n t I notice t . at .most Q, t e birds and some. of the -*animals* gre*eted the day with song:?").* Singing in the, morning thus .may prforµi the function not only of pleasantly filling in th period .b,etween darkness and dawn, after sµHicient sleep has been obtained and before the ac tivities of the day begin, but also of reinforcing the p•Qndsmaintained with the animal werld.

The importance of singing at drinking feastshas al ready been stressed. The songs sung at this time, like those sung in the early morning, ate largely im promptu. To reco d them witho_ut instruments is next to an impossibility, because thesingers a_re drunk and mouth their , words more than usual. In so *f ar* as I was able to determine however, they a *st*yl*ize*d•only as to form and rhythm :an.d never as, to content. folJil ants said that when drunk they sang whatever .rhyth mical cornbinations came into their heads.

The most •meaningful songs seem to be those th,.at are sung in connection with the dance. Dancing (*yuruki)* .is always accompanied 'by singing *(hidasi dasi)* and is a very comµion way pf passing parts of

" the long tropical nights, especially when the moon is shining. Group dancing is rarely indulged in during the day or on nights when the moon is dark. On such nights a fear of evil spirits keeps the Indian close to his *h*ammock.

Both men and women dance to the accompa_niment

of -songs,but they nev_yr dance to.gether. Nor do peo ple dance alone. A man (or woman) wishing to dance may get up and do a solo number by way of animating his tribesmen to join him, but the expression of the dance comes through participation of several people in the circle.

In forming the dance circle, men link their arms in

the following *m*anner.With his right hand one grasps the left wrist of the second person on one's right. One's left wrist is then grasped by the right hand of the second person on one's left. When the

circle is com pleted one's back is thus encircled by the left arm of the person on one's right and by the right arm of the person on one's left.

Following the formation of the circle the dancing

and singing begin. The participants throw back their heads and stamp their feet alternately up and down firmly to the rhythm of the music. The circle itself remains stationary during the first phase of the dance. When the dance begins, the beats of the feet are co-ordinated with the accented sylla_bles of the fol lowing song,which is sung in unison:

h£to hito h£to hito ti su a ca
yi sa di mose
a t£ ba t£ i ca
ai i*ca*
mimba mimba

The above song is always sung at the opening of a dance, whether it be men or women that are dancing, but I was unable to get a translation of it. Air oI my informants told me that the song was me*aningl*ess, but it does contain some meaningful words, such as *yisadi mose* (when dancing"") and the expression *h£to,* which here probably means ""happy."""' This suggests that part of the s9ng, at least, means something like ""I am happy when I dance."""

During the first phase of the dance, the above song is sung over and over again in u*nis*on about twenty

:five times, by which time a considerable emotional enthusiasm has taken hold of the group. After a brief rest, the second phase of the dance begins, also by everyone singing a song in unison. Some verses of this song are quoted below:

ah ah ah ahah
san de ra ca
ta du. ha
mundu
cu du fa ha
nde ra f a nenda ta m£N ge
mundu
cu du fa ha
a! sai ibi at6 ai sai ibt at6
ku ru kwa ta ki a ta
ai sai ibi a Ju *du mun du ha*
a turu. ba
mundu
cu du. fa ha

Although the above song contains certain meaning ful words, a translation is impossible because it seems to follow no grammatical pattern. After a number of verses have been sung over and over again to the ac c*o*mpaniment of stamping feet, a leader takes charge of a circle and the singing becomes imprompb.I. Dur ing this phase of the dance, inaddition to the stamp ing of feet, the entire circle of dancers moves round and round counterclockwise, and the participants bend their heads downward so as to hear the words of the leader. As he chants a phrase the participants repeat it after him. His phrases often bear on some exploit in hunting or on some event in his life of which he is particularly proud. One moonlit night, for ex ample, Yikinandu (Father-of-Owl-monkey) chanted for two hours about how he had killed tapirs and jaguars; on another, Eresa-eanta (Strong-eyes) sang for as long a time about how he and his brother killed a white man years ago during the last rubber boom. Since these songs are impromptu and are sung only during a dance, it is impossible to record more than snatches of them without technical equipment, which

I did not possess. Nor did my knowledge of the lan guage ever reach a point where I could understand them fully.

The women perfonn a ring dance similar to that of the men, except that they do not link their arms in the same fashion and do not stamp the ground with such force with their feet. In forming the dance circle women place their arms around the necks of the par ticipants next to them, and their body movements consist of waddling around in a circle counterclock wise, with hips swaying, to the accompaniment of the songs. The women's dance begins with the same song as that of the men. It is sung over and over in unison, after which a leader breaks in with an impromptu chant, the phrases of which are repeated after her by the other dancers. *On the whole, the women <l ance...* less often than the men.

Everyone knows *h*ow to dance and to sing some songs. Since the rhythm of the dance consists merely in the stamping of feet, there is no problem in learn ing to dance. Young people are often observed form ing a dance circle in imitation of their parents. Al though all adults know how to sing certain songs, certain individuals are known to be more skillful in composing songs than others. Such people usually take the lead in the dances and play the most prominent role in the singing that accompanies drinking feasts. It may be significant that in the two extended families which I knew well both of the chiefs were prominent singers. But although they often took the role as lead ers, other individuals equally gifted also frequently as sumed the same role. There are no professionals-no persons who are always called upon to sing at a drink ing feast or to chant at a curing rite.

Chapter VII. FOLK BELIEFS AND SCIENCE

THE Siriono conception of the universe is an almost completely uncrystallized one. !v;ly Indian friends never voluntarily talked about cosmological matters, and when I attempted by questions to gain some in sight into their ideas about the nature of the universe I almost always met with failure. Young men would say, "Ask the old men," and the old men would an swer, "I do not know." Even the sage of one of the extended families, Emh6ta (Beard), although he showed considerable interest in my inquiries and gave me unhesitatingly what information he possessed, was simply unable, for lack of ideas, to enlighten me on most points. On several occasions I even held con sultations with those whom I regarded as the sages of the band, and got nothing but general agreement that *n*othing was known about this question or that. It would seem that their concern with the immediate world has left the Siriob.o little time to speculate on cosmological matters.

The more or less indiff erent attitude taken toward the universe is clearly reflected in the virtual lack of folklore and mythology. rJie Siriono *are_ one of t*he few *p*rim*i*tive peoples I know of who do not oevote

;*: considerable part of their free time to tlie felling o*f folk *t*al*es* and myths. In about eight months of more or less permanent (i.e., day and night) residence with them, only twice was anyone animated to tell a folk tale or story of his own accord. After making one un successful attempt after another to get informants to relate myths and tales, I was forced finally to conclude that this phase of culture was simply not developed, that there was no fund of folklore and mythology. upon which to draw. If people did any talking at night it usually had reference to some happening in the im mediate world, such as a tapir hunt or a quest for wild fruits.

Moon (Yasi) is the *c*ulture hero of the Siriono. Foerly *h*e as a *g*reat cli1ef who lived on the eartli:

At that time there was nothing but water and a race of harmful people. Moon destroyed these evil beings, and at the places where they were killed, the reeds from which the Siriano make their arrows sprang up. Moon then created man and the animals. At first both were in a kind of _ amorphic state. The animals were too hot to touch and bumd the arms of the men who came in contact with them. Jaguars, especially, killed many men before the latter learned how to hunt them. Moon taught men how to hunt and fish:, to make bows and arrows, to plant crops. He gave them maize, papaya, manioc, chonta, wild fruits and plants. In fact, he is responsible for the world and everything in it. Moon is now believed to live in the sky. The reason for his ascending to the heavens is :revealed in the fol lowing folk tale, which also explains why the animals have the shapes and colors they now possess:

Yasi (Moon) had a child. Yakwa (Jaguar) was de lousing the child and killed him by biting him in the head. Then Yasi came along and said, "Who killed my child?" Yoita (Fox) was standing by and said, "I do not know." Yakwa was hidden between two mats of motacu at this time. Then Yasi went along an,d began to ask all of the other animals. "Who killed my child?" All of them answered, "We do not know." Then he came to where Erubat (Spider Monkey) and Tendi (Howler Monkey) and Seaci (Coati) were having *hiri heri* (a drinking feast) . Yasi was very angry. Erubat wanted to be red in color like Tendi, but yasi said, "YOU will be black.,' Yasi was angry because all of the animals were drunk. Then he grabbed Tendi by the neck and pulled it into the shape it now has. Kwandu (Porcu pine) was standing by, got angry with Yasi, and began to scratch him. Yasi put spines in his back a,nd fixed his feet so that he could not scratch. He also twisted the feet of Antanbuja and Antandisa. (Anteaters) and picked up Kon6mbi (Tortoise) and tfu.ew him down again, saying, "You will not walk fast.„ All of the ani mals were very angry. That is why Erubat and Tendi howl so loudly today and that is why Eru.bat throws chon ta fruits at one when he passes by. Yasi was still very angry and decided to go up into the sky. He began to climb a huge tree up into the sky. Before going up he told Yakwa to follow him, but Yakwa did not know how to climb very well and when he got part way up he fell down into the water below and was eaten up by Senye (Palometas), who were enormous in those days.

The above folk tale, of which there are a number of variants, was about the only one I ever heard the Siriono tell. Although Moo;n is credited with havin started every 1n in their culture, stones to account for these things were never told. I cou ge n porting myths, for instance, for the origin of the world, the

origin of 1nen, or the origin of fire, even though informants were agreed that Moon was responsible for them.

Moon now lives in the sky. He is a great chief . He spends about half of his time hunting. During the dark of the moon the Siriono say that he is far away, hunt ing peccary. To explain the waxing moon, Embuta told me that when Yasi comes back from these hunts his face is very dirty; he washes a little of it each day until, when the moon is full, his face is clean. To ex plain the waning moon, he said that when Yasi goes on a hunt he gets his face a little dirtier each day, until before long it is so dirty that it cannot be seen at all.

In the explanation of natural phenomena, Moon also plays an important causal role. One e lanat• thunder (*in icinamo* and Ii htnin . *iN - μi* i ey are. caused by Moon throwing pecc*aries and ,* jaguars down from• the sky. An alternative explanation of thunder was offered by Aciba-e6ko (Long-ann), who stated that it was caused by Moon pulling up bamboo in the sky. Still a third interpretation of thun der and lightning, one that has no relation to Moon, is that they are caused by a huge jaguar (*yakwadusu)* who lives in the sky. When this jaguar winks his eyes there is lightning, and when he shakes himself there is thunder. There was no general agreement among informants as to which of these interpretations is correct.

Thunder and lightning, however, are always greeted with howls by the men, who step outside the house and roar at the sky. This is believed to drive the thunder and lightning away. Informants also told me that it was good to dance and sing durb.:ig a thun derstorm, as it would then disappear more quickly, but Inever saw them practice what they preached in this 1'espect.

As to other celestial phenomena, no distinction is made between the planets and the stars, and there is no grouping of stars into constellations. Both lane*t*s 8?d stars are called *yasi tata* (moon fire . so far as

I could tell, these "moon fires" are believed to be

.caused by Moon, although in places where Christian influence has penettatd they are thought to he fires of people who five in the heavens.I"was u.na:ble to get -any cusal explanation,for the rainbow (*£be* fri), although its appearance presages an epidemic. of il | | colds. One of my Casarabe informants Kenda, tol .me | | tha"t;• . e, ram ow_

. nta'.

. . . *ac"i'k. wai•a*

("••ev• ••spirit w icli c*a*u • *e* nose: and th:toal: c pses, it seems, are unknown; at leastIwas •a •le to• get any int..rP!'etatiOI) of the!):}. Beyond ,the state ment that the sun is '"fire" .and i$ responsible for the light of .day,Icould get no native elanation of ff.

Mist (or fog) is called *tatasi* (smoke), and •i-s equated with smoke • from fires or pipes. Rain is caused by the overflowing of a large lake which•is believed to exist in the heave:r;;ts. Winds (*kirid:ia) ,* especiallf the cold south winds that • come from Tirra• .del Euego d1.1Ting the dry season, are be1ieve.d to be caused by *abacikwaia* No special.significance seems .to attach to whirlwinds, of w•hich Iwas •unable to g.et an exf)Jana tion, although storms generally are also thought caused by *abacikwaia.*

.to be

Most adults have ijn excellnt knowledge of the geography of the area in which they wander. No mat ter how meadring his course., the Indian never gets lost in the jungle and is able to return. directly to the spot from which he sp:trted. While no more than two cardinal points-east, where the sun rises, and west, where the sun sets•-are• recognized) :the .course of the sun i the sky, together with such marks as topograph ical phenomena and water courses, accurately guide the Indian on his way.

Knowledge of plants and animals is most extensive. When the plants flower when they bear thei(fruit,

,which .ones• are good to eat, etc. are known by every child of ten. The habits of •animals-what tμey eat, whete they sleep, when they have their young, etc.

-:-are. (?Ommon knowledge to every boy of twelve.

Numeration, Mensuration, and Time Reckoning The Siriono are unable *to cou*nt be on three. In counting to three, however, the fo lowing •words are employed: *komf,* (one); *yeremo* (two), *yerem6mo* (three). Everything above three becomes either *etu*

ben∫a (much) or*eata* (many).

In counting, the .fingers are sometimes employed to illustrate the . desired number by placing one, two, or three of them on the nose.. In indicating, any number abo.ve three, in addition to saying "many," the fingers of one or both hands may be held up, or, if the num ber isvery great, the. toes may be thrown in to boot. For :instance, whn a •returning hunter is asked some ueh question as "How many turtles did you :find?" if the answer is below four, he will hold up the ap propJ;iate number of :fingers to his nose and say the number; if it is above three he may hold up a con fused number of fingers and just ay "many"; if it is very great he may demonstrate his toes as well.

The inabilicy to count beyond three, however, does not mean that an absence of one, object from among

•a larger num}ler will not be noted. A man who has a. hundred ears of com hanging on a pole, for instance, will note the lack of one ear immediately. Thus the mathematics of the group, when it comes to counting above three at least, seems to be based on ome kind of *Gestalt;* whether ,something has. been added to or subtracted from the visible total will be lmown be cause of a change in configuration.

Since trade apd commerce are completely foreign to the Siriono, they employ no weights or measures. The size of .ots, the length of bows and arrows, etc. are determined entire - y uess. e eng o a hammock, of course, is rou y determined by the height of the person who will use it, but no tools of any kind are employed in measurement. The same may be said for measurements_ of distance, which is merely expressed in terms of far *(£so)* and near (*ai£ti)* with the addition of gestures.With respect to distance, the Indians sometimes employ such vague references as one, two, three, or many foot.

" sleeps,,, 1..e., days away on

No records of time are ke t, and no type of calendar exi*s*tr.J r, w1 its divisien 1n o mon s moons,"" is ite unknown. Events are sometimes referred to phases of the moon, but such references are extremely vague. The seasons, of course, are clearly recognized from such phenomena as the receding of waters, the flowering of plants, the ripening of wild fruits, and the harvest of reeds, but seasons are not named and are not co-ordinated by the Siriono into any kind of calendar year, although such a calendar might easily be compiled. In referring to past events, the Siriono most frequently say that th.ey happened *k6se mose,* which may mean any tjme before the day before yesterday. Events are also sometimes referred to as having taken place ""when Iwas a little girl"" (*yuk waki mose) ,* ""when Iwas sick"" (*serasi mose),* ""when Ikilled a tapir"" (*seakwantui mano mose),*"

" when Iwas living at the old house" (*se cucua f.ma mose),* etc.

Day is referred to as *nasi* and night as *itondaru.* To morrow is known as *isamami* and yesterday as *kudi.* To express the day after tomorrow or any day in the future the Siriono say *isamami an6Nge* (brother of" tomorrow"), and they similarly call the day before yesterday *kudi an6Nge* ("brother of yesterday"). To day is always expressed by *namo* ("now"). The *t*ime of pay is indicated by the position of the sun in the sky. When one asks a *S*irfono "Where is the *sun?*"

(tma tenda si mande?',), one may get any of the fol lowing answers, depending on the time of day or night:

cresaii tenda bi ("the sun can be seen")-about 6 A.M.

tend.a cui ("the sun is out:')-about 8 A.M.

tenda cuitetiu k6ti ("the sun is well up") -about 10 A.M.

tenda nande itere ("the sun is overhead")-noon

teM a 6so ("the sun is leaving")-about *4* P.M.

tenda os6ti ("the sun is low") -about 5 P.M.

tenda 6so tefiu k6ti ("the sun is well down")-about 6 P.M. *ibi ta tenda k6ti* ("the sun is under the earth")-about *7* P.M. *edesaiito* ("hard to see")-twilight

ito namo (”soon dark”)-about 7 P.M. *itondaro* (”darkness”)-about 8 P.M. *itondaru tuti* (”very dark”) -about 10 P.M. *itondi* (”pitch dark”)-about midnight

Chapter VIII. SOCIAL AND POLITICAL ORGANIZATION

The Family

THE nuclear family, consisting of a married man, his spouse or spouses, and their ohilen, is the funda mental social and economic unit among the Siriono. Most of the activities of the culture, in fact, revolve around the nuclear family. Hunting is largely a family affair, as are fishing, collecting, and agriculture. Sin ono society, moreover, contains no specialists; the only occupational differences are those based on sex and age. Hence all work such as basket-making, tool making, weapon-making, and pot-making must be done within the family. So important is the nuclear family that the culture c*o*ntains few activities and the society performs few functions that are not embodied in or perf ormed by individual family groups.

••amil life centers not in a se arate dwelling but *a*round the ammoc o e husband an e, w ic are hun in t e comm e o the band1 E monogamous fami y generally occupies two ham *n:-cks one for* the man and the other for his"Mfe and children.:.. In polygynous ami es -occupy separate hammoc s, w ich are laced with reference • to le hammock the hu.§band according Jo their status in the family hierarchy. The first wif e \1Sua1Jy ocCfil)ies the position to the right of th_J}.husband; the_. second, to the left; the third, at his bead; the fourth, at *h*is feet. Between these hammocks lie the family h or fires upon which the cooking is done. Since the distance between each hammock is seldom greater than three feet, a nuclear family, if monogamous, rarely occupies a space greater than eight feet square. Within *this* hang the calabashes of water, the baskets of food, and all other family possessions.

While one usually enters a family group by birth or by marriage, it isalso possible to enter by adoption. Among the Siriano, however, there are no formal cere monies of adoption, nor are any specific relatives designated to take care of orphan children. One or phan whom I knew was being raised by his maternal grandmother; a second, by her mother's sister; still a third, by his mother's parallel cousin (a classificatory sister)„ who also happened to be his father's second wife. Informants told me, however, that a mother's sister of an orphan child was most frequently desig nated to assume the mother's role. In so far as was able to• determine, adopted children are treated in about the same way and are considered as much a part of the family as natural children.

Adults are never adopted. After living about eight months with the Siriano, during which time I was on *sen6Nge* (my brother) terms with the chief and often hung my *h*ammock next to his, I was never regarded as a member of the family except in a joking way. While I was respected and generally liked, I was al wayslooked upon as an outsider.

"Within the nuclear family authority is patripotestal.

r A_ woman is subservient to her husba_nd, while children are subservient to both parents. In polygynous families the first wif e-generally the one to whom the man has been married the longest-is dominant over

0all other wives. While considerable economic co-operation takes place between co-wives in a polygy nous family, more work is done by the secondary wives than by the first wife. The former, for instance, are always required to do the menial tasks, such as bringing in firewood and water. The first wif e, more over, is privileged to distribute her husband's game, she usually gets the first choice (after the husband) of food, and it is usually her son who succeeds his deceased father if the latter was a chief . Furthermore, it is at the hearth of the first wif e. that the husband generally eats. The secondary wives maintain hearths of their own where they cook for themselves and their children.

A man enjoys sex rights with all his wives, but they are not necessarily exercised in any prescribed man ner such as by rotating from one wife to another or by concentrating principally on the first wife. In sororal unions the kinship tie between co-wives doubtless does much to mitigate friction that might

otherwise arise between them, but in non-sororal plural marriages sex ual jealousy between co-wives is sometimes intense. Since food and sex go hand in hand in Siriono society and there is a scarcity. of the former-the wives with whom the husband most frequently has sex relations are also the ones who generally get the most to eat. Consequently, co-wives frequently vie with one an other for the sexual favors of their husband. This sometimes leads to bitter fights and quarrels. If, for instance, a first wife is growing old and is receiving less and less attention from her husband as regards both food and sex, she frequently displaces the ag gression she feels for him, but cannot express directly, to a younger wife who is enjoying his favors at the moment. Such outbursts of emotion sometimes cuhni nate in bitter fights, the women tearing up each other's hammocks and striking each other with digging sticks and spindles. i\.n aging first wife generally main tains her dominance in the family for a while., but as her husband pays less and less attention to her, she gradually resigns herself to a secondary role in the household. She continues to cling to her economic rights, however, as long as she possibly can, and these are usually maintained longer than her sexual domi nance.

A man generally takes no part in the fights that break out bet,:veen his wives; indeed, he is usually away on the hunt when they occur. Only if they occur too frequently or become too violent does the hus band intedere. Under these conditions he may threaten with divorce the wife standing lower in his favor, inorder to keep peace in the family.

While relations between husband and wife are gen erally amicable, quarrels are of frequent occurrence. They usually arise over questions of food and sex. Whena man has been out hunting all day without eat ing and arrives home to find that his wife has not pre pared something for him to eat, or if he has had ill luck in hunting and is chided for this by his wife, a quarrel is apt to arise. In situations of this kind it is the husband who expresses the stronger aggression, and as a rule other memhers of a family take no part in a marital dispute.

If a man is only mildly angry with his wif e, his feel

ings usually go no further than harsh words. He may accuse her of being *et6mi* (lazy} or *ecimbasi* (pro miscuous), or threaten her with divorce. If his anger rises to a higher pitch, he may rip a string or two from her hammock or smash one of her.pots. If his anger becomes intense, he may tear her hammock to shreds, chase her out of the house with a firebrand, or even tum his anger against himself and break his bow and anows. He never beats her, however. Following an intense outbmst of aggression, to which a woman re sponds by crying and running into the bush, a man usually leaves the portion of the dwelling which he occupies with his wife and goes back to his relatives until amicable relations have again been established. A man signifies his desire for reconciliation by return ing to the hearth of his wife.

The Extended Family

Besides being a member of a nuclear family, every Siriono a1so belongs to a larger kin group, the matri lineal extended family. Such *u*niliueal kin groupings as moieties, c1*a*os, and sibs are not found among the Siriono. Because of matrilocal residence, groups of matrilineal relatives tend to cluster together in the house and to form extended families. An extended family is made up of all females in a direct line of descent, plus their spouses and their unmarried children.

The primary function of the extended family is eco nomic. While the nuclear family is the basic economic unit, considerable co-operation in the performance of duties a1so takes place within the extended family. Such co-operation is often heightened by the fact that brothers frequently marry sisters and thus continue the co-operative role they played in their family of orientation.

The distribution of food rarely extends beyond the extended family. Members of an extended family co operate• to build that portion of the dwelling which they occupy. They sometimes plant gardens in com mon. A woman often gathers food with her sisters or her mother, and when brothers are members

of the same extended family they frequently hunt together. Sometimes the entire extended family leaves the band for a while as a unit and goes on a hunting and gath ering e edition.

The extended family is generally dominated by the oldest active male. Although his power is not supreme like that of the father in a nuclear family, younger members of the e;xtended family usually pay need to his words. The head of an extended family, however, does not possess any title, such as that of chief .

The Band

The local group or band is the largest social group to which a Siriono belongs. In a certain sense the band is also a kin group. Since b.ands rarely have contact with one another and are thus largely endogamous, it is possible for most band members to trace their descent through one line or another to every other band member.

One f-eature of Siriono society makes it most difficult

for the ethnologist to determine the actual constitu tion of the band. A very active system of teknonymy operates to make. the collection of genealogies an al most impossible task. Every time a Siriono is the father or the mother of a child, his name is changed to that of the child with an additional suffix indicating father or mother. This, coupled with the fact that nicknames are also frequently changed, makes it possible for an Indian to have as many as fifteen or twenty names during the course of a lifetime. One's father, for in stance,. will not have the same name after one's•own birth that he had after the birth of one's elder brother. Consequently, if the ethnographer asks two people, whom he knows to be brothers, the name of their father, he may get two entirely dilferent names for the same person.

When I first began to work among the Siriono I re

mained entirely ignorant of th_ *system of tenymy* until I began to collect genealogies. Analysis of these proved to be useless in establishing relationships be tween people whom I knew to be related. A dead ancestor was almost always referred to by as many names as I had informants. After four months• study at Casarabe-made difficult, of course, by the break down of the old social organization-I was unable to check my findings by genealogies because of the op eration of teknonymy, even though I had acquired a fairly complete knowledge of the kinship system and the rules of marriage through face-to-face relation ships.

By the time I got to Tibaera, of course, my knowl edge of the language had increased considerably and I was well aware of the system of teknonymy. Thus when I returned from the forest with the band of Acfba-e6ko (Long-arm) in October 1941, I threw away my old genealogies and began systematically to collect new ones from almost every member of this group. Careful analysis of this material, though much of it proved useless, revealed that, even with the op eration of teknonymy, certain nicknames in particular tended to persist, and I was thus able to get a number of reliable instances where two men who said they were brothers actually did have the same father and mother. Once having a tangible basis of this kind to work upon, I was able to trace out rather fully, by checking back on old names, a number of genealogies and to work out the kinship system and rules of marriage. I was never able, however, to determine the actual kinship of every band member to every other

band member, even though I could record the kinship terms by which they designated each other.

In the 5 extended families which made up the en tire band of Acfba-e6ko there were 17 nuclear families, all of w-hich were monogamous except *4*. In the *4* ex tended families which made up the entire band of Eantandu there were 14 nuclear families, all of which were monogamous except 3. In both bands the chiefs maintained more than 1 wife: Aciba-e6ko had 2, while Eantandu had 3. The total popula tion of the band of Aciba-e6ko was 94. Of this number, 25 were adult males, 30 adult females, 18 pre-adult males, and 21pre-adult females. The total population of the band of Eantandu was 58; 17 were adult males, 19 adult females, 10 pre-adult males, and 12 pre-adult females. The average number of children

per family, considering both bands as a whole, was about 2; in the band of Acfba-e6ko it was 2.3, while in the band of Eantandu it was 1.6. Since the latter band hao had consiaerable contact with the whites, a number of their children had been stolen from them.

Each band occupies a single dwelling, within which cluster the extended f*a*milies. The chief and his ex tended family always occupy the center of the house, while the other extended families spread out from his in both directions. During the rainy season, when travel is difficult, the band is a fairly cohesive unit, but during the dry season it is much more loosely organ ized. At this time nuclear and extended families are of ten away from the band on hunting and collecting trips that sometimes last three weeks or a month. The chief function of the band seems to be that of supply ing sex and mantal paitners. It erforms few ec*on*o*mic*

ons and is held er ar .el _y

The Siriono have a very weakly developed tribal sense. While bands occasionally come in contact with each other in their wanderings, there are no cere monial occasions when they all come together. When contacts between bands do occur, however, relations are peaceful.

Bands possess no prescribed territories. If one band runs across hunting trails of another, however, they do not hunt in that area. When I was traveling with Indians of one band in the neighborhood of a house of another, they were reluctant to do any hunting. Informants told me that where trails of another band existed, the animals of that area belonged to the peo ple who made the trails.

Kinship System

There are only eleven fundamental kinship terms by which relatives are designated among the Siriono. As can be seen by examining Charts I, II, III, and IV and the list of terms given below, the kinship system is a highly classificatory one; many relationships are signi fied by a single term.

Kinship term Relatives to whom app lied (*Male and female speaking unless otherwise• desigriated)*

1. *a.mi* Father's father

Father's father's brother Father's father's sister's son Father's mother's brother Father's mother's brother's son Mother's father

Mother's father's brother

Mother's mother's brother Mother's mother's brother's son

z. ari

3. *eru*

4. *ezi*

Mother's mother's sister's son Mother's hr-other

Father's sister's husband Father's sister's son (M.S.) Wife's father (M.S.)

Wife's father's father (M.S.) Sister's husband (M.S.) Husband's father (F.S.) Husband's father's father (F.S.) Husband's sister'shusband (.F.S.) Old man

Father's mother Father's mother's sister

Father's mot'hr's sister's daughter Father's father's brother's dau.ghter Father's father's sister's daughter Mother's mother

Mother's mother's sister

Mother's mother's brother's daughter Mother's brother's wife

Father's father's sister Father's sister

Father's sisters daughter"

Wife's mother (M.S.)

Wife's mother's mother (M.S.) Husband's mother (F.S.) Husband's mother's mother (F.S.) Husband's sister (F.S.)

Old woman

Father

Father's brother

Mother's father's brother's son Mother's sister.'s husband Father's father's brother's son Father's mother's sister's son Stepfather

Mother Mother's sister

5. *an6Nge*

6. *yande*

Father's brother's wife

Father's mother's brother's daughter Father's father's brothers daughter Mother's mother's sister's daughter Stepmother

Brother Sister

Mother's sister's son Mother's sister's daughter Father's brother's son

Father's brother's da,ughter Wife's sister's husband

Hali Brother HaH Sister

Mother's brother's daughter (M.S.) Wife's sister (M.S.)

Father's sister's son (F.S.) Husband's brother (F.S.) Husband's brother's wife (F.S.) Potential wife (M.S.)

Potential husband (F.S.)

7. akwan£ndu Mother's brother's son

Mother's brother's son's son Father's sister's daughter's son Son-in-law

Mother's sister's daughter's son (M.S.)

Sister's son (M.S.)

Father's brother's daughter's son (M.S.) Father's sister's son's son (M.S.)

Wife's brother (M.S.)

Mother's brother's daughter's son (F.S.) Mother's sister's son's son (F.S.) Brother's son (F.S.)

Father's brother's son's son (F.S.)

8. *akwant* Mother's brother's son's daughter Daughter-in-law

Mother's sister's daughter's daughter (M.S.)

Plate 5 Yikinandu watching one of his sons draw the bow *(Tibaera).*

Plate 6 A hunter leaning on a pole *(Tibaera).*

Plate 7 Etakui cutting up a tortoise *(Tibaera).*

Plate Ba Siriono boys at Casarabe with catch of armadillos and anteaters.

Plate *Bb* Mon.key meat roasting in the jungle *(Tibaera).*

10. *aka*

Sister's daughter (M.S.)

Father's brother's daughter's daughter (M.S.)

Father's sister's daughter's daughter (M.S.)

Father's sister's son's daughter (M.S.) Wife's brother's wife (M.S.)

Mother's brother's daughter (F.S.)

Mother's brother's daughter's daughter (F.S.)

Mother's sister's son's daughter (F.S.)

Brother's daughter (F.S.)

Father's brother's son's daughter (F.S.)

Father's sister's daughter's daughter (F.S,)

Brother's wife (F.S.)

Son Daughter Stepson

Stepdaughter Brother's son (M.S.)

Brother's daughter (M.S.)

Father's brother's son's son (M.S.) Father's brother's son's daughter (M.S.) Mother's sister's son's son (M.S.) Mother's sister's son's daughter (M.S.)

Mother's brother's daughter's daughter (M.S.)

Mother's brother's daughter's son (M.S.)

Sister's son (F.S.) Sister's daughter (F.S.)

Father's brother's daughter's daughter

(F.S.)

Father's brother's daughter's son (F.S•.) Father's sister's son's son (F.S.)

Father's sister's son's daughter (F.S.) Mother' sister's daughter's daughter (F.S.) Mother's sister's daughter's son (F.S.)

Grandson Granddaughter

Child of nephew or niece

11. *nininisi5*

Child.of first cousin once i:emoved Child, _

Wife (M.S.) Husband (F.S•.)

01am not posit"i:ve that his term js applied to botn husband and wife.. Since the kinship ystem makes no sex distinctions between potentlal husband and_ potential wifJ Iam, fairly cer tain that the same 0 term is applied to actual husband and wife.

Kinship terms are more frequently used in address than personal names or nicknames. The latter, how ever, are sometimes employed in address and fre quently (particularly nicknames) in reference. In husband-wife relationships, moreover, special tek nonymic usages prevail. After a child has been born, a man addresses his wife as *akesi* (mother-of-child) and he is addressed by her as *akendu* (father-of child) . These usages, so far asIknow, do not extend to other relationships.

Tlie outstanding characteristics of the kinship sys tem are • e o ow*1n* • :

1 • hip is bifurcate-merging. The father's brother is classified with the father, while the mother's brother is designated by another term; similarly, the mother's sister is classified with the mother, while the father's s r is designated by another term.

t.7' Grandparents are not distinguished in kinship terminol*gy*. Grandfathers and their brothers are designated by the same term as mother's brother, while grandmothers and their sisters are designated by the same term as father's sister.

(No sex distinctions are made between siblings a'M parallel cousins, all of whom are designated by o rm. ross-cousins are ditinguised from parallel cousins, and the cross-cousin termmology reflects the system of mllrriage. A man marries his mother's broth er's daughter, a woman her father's sister's son. *Mar* riage between a man and his father's sister's dau hte er mo er s rother's son is. with the fatheis sister and, h_er _•husl>and, i.e., they are, | | raised one eneration, while the mother s *brother's* mirtologically depresed qne | . g qe:r,:ation | | | £ 1. .ren •are clasifi(;}d with uei,1he:ws; and nieces., i.e.,.

On the basis of cousin temunology the kinship ystem

JiffU-S'of the Crow type•. ,

5. • .o sex stjnctions are made_ between son and

O;ftO.ghter, 'both of whom are designated by the same term, and this term is extended to,

, include the children of siblings .and of parallel cousinsof the ,opposite

y ..

6 | | pecial terms showing • sex differences are• emiJ2!C'>f1ed to designate the-sons and daughters of siblings and parallel cousins of the opp.osite•sex.

.fif:J No sex distincti_ons are ade benyeen gr_andson

\md granddaughter, or the children of nephe_w . and nieces, all of whom are called by one term.

(8) There are no special affinal terms except the one

-tbtactual spouse. -

4i),No age distinctions aremade for any type of ives.

Kinship Behavior

Generally speaking, *there•are no fo1111a:Uze9, qpliga-* tpry *patterns* of -kin.ship behavior. Brother-sister avoid • ance, parent-in-Ia'Y tboos, joking. relationships, etc. are lacking. Howeyer, patterns of relative reserve ard freedom are clearly noticeable betw.e.en certain rela tives.

Jt lationships between husband aod: wife• are !e gnd easy. Sex play in the form of scratchin ,. oki_!!.g each othet in . e eyes, grooming, striking at e:aeb_ _gp}: er'*s*-sxual *o*rgans, joking, etc. is publicly indulged in without concern. While lying naked in their ham mocks, husband and wife are frequently observed fondling each other, and if desire mounts to a suffi eient .pit.ch (if, for instance, a nian hews to feel an erection), tlie couple may retire to the 'hush for imme diate sexual intercourse. Under :these conditions they showlittle eoncem for the observing public. I have heard men,_and even women, suddenly overcome with desire, publicly call for their spouses to accompany them into the forest in order to relieve their sexual tensions. Public reaction to such behavior is one of amusement.

.Potential husbands and wives to some extent share the patterns of &eedom that exist between husband and wife. This is especially true s reg:ards the rela tio.ns between a man and-his wife,s sister or a woman and her husband's brother. But as the• neamess of re lationshiR between _potential spouses decreases, the patterns of freedom in their public relations also de creases. The principal reason fQr this seems to be the jealousies that arise out of too frequent sexual inter course Between distantly related potential spouses,

•which sometime.s result in fights and quarrels.•on the whole, howev.er, the relationships between potential spouses are patterned along the lines of those actually existing between husband and wife.

Between parents and young children there. is littl re,s rve.. The'•latter are treated veey indulgently *a*nd

re seldom pulrished for breaches of custoi;n. •xs chiI)

<gen grow older, however, they are expected to •re

*s_peet and to obey the parents, who &eat thes r*ou*ghly in case they do not.* A person's respect for his parents continues after marriage until the latter grow old and useless, after which little con em is shown for then.i. .,.

-er are gne aed to'-include II .relatives -class ;i | | | | | |

A certain resenre ean also bee note_d.in. the relation ships between siblings of the opposite sex; this never reaches the point of voiqaqce; howev.eri Broµters and sis:ters are alloW,ed to speak freely to qne another-and otherwise maintain cordial relations-but a taboo on sexual 1'ehavior between them is instilled in - early childhood. The sexual taboos between brother and *s*is siblings by the kinship system.

all | |

• The freest relationships of_ _are those between sib lings of the same ex and of about the same ge. Erom earliest childhood brothers, like sisters, begin to as. sociate with each other, and the close bonds established at this time col\Unue and str_engthen througJ1ont life. Brothers frequently mar:iy sisters; they h:ave the same potential wives; they htmt, fish, and'plant gar dens togther. Conversely, sisters frequen&y marj:y brothers; they have tli :same potential husbands; ey

.collect, cook, and carry oJ)t household tasks together. Under conditions of this kind', of course;binding ties are formed, so that brothers often enjoy secrets with brothers, and sisters with sisters, t:hat are not even - shared by husband and wife. Thus throughout life one's most intimate friend and companien is most likely to be one).s .sibliQg of the. me •.sex and o about the same age. _.

Grandparent-gi-ar,idcbild rlationships are rare. When they do occur, a grandchild is supposed to show respect for his grandparents equal to th,at which he shows for his parents. In •erieral, however, grand ar ents have little to_say a out how gran c 1 •• en are to

raist:d. A grandmother may weav*e*baby sling for her gr.andchild, or a grandfather ma,y make a toy bow

.and arrows for 'his grandson, but such things are more

•often made by parents than b,Y. grandparents.

.Although there•are no taboos between parents-in la'w and. chilllien-in-law, the relationships between these relatives are the•. most reserved of all Because of matrilocal residence a woman is able to avoid most direct contacts with her parents–inlaw, but a man, while in. tlie house, is almost constantly thrown into contact with his parents-in-law by virtue of the fact that his (and his wif e's) hammock hangs not three feet from theirs;with nothing more th a few embers of fir .e to eparate them. Under these intiate and frustratfu_g circumstances .it is rather strange that no mother-inlaw taboo. Bas arisen to help in keeping pe_ace between the falI)ilies,.• but this has not . hap 'pened. The fact of kinship ties-1::Soth husband and wife are related to their in-laws by blood-probably does ;much to lessen the friction that otherwise might arise between them.

While overt b(;)havi6r between in-laws is usually po lite and reserved, suppressed aggression sometimes runs high•. This is particularly true in cases where a m.an is living with his mother-in-law whose husband is dead, for lie then has to supply her with food with out receiving anything in return. Widowed mothers in-law have substantial appetites and contribute al most nothing"to the famiJy larder. Consequently their sons-in-law regard them as• liabilities and avoid rela tions with .them whenever possible.

Artificial ties of kinship such as blood brotherhood and•ceremonial parenthood •are absent. In this -con nection, the Franciscan priest Anselm Schennair (1934, p. ,520) has implied .that the Siriano possesses a form of godparenthood. He $tates that the t*e*rm *yande* is a lied to eo le who stand in the relati*o*nshi of godparent to one's child. Actua _y *t*hi*$* is not the case. *A;s_* we have already pointed out, the ferm *yain"ile* is used to designate a potential spouse. What confused the padre and led him to mistakea potential spouse for a godparent is doubtless the following fact.In the cere monies following childbirth, potential spouses of the mother-those who have had sex relations with her are frequently decorated•with feathers and undergo the rites of couvade like the parents themselves. This is logical enough in view of the faet that the Siriono recognize a very close relationstiip between parent and child and that one of the womans potential hus bands may, after all, have been responsible fo_r the pregnancy. Moreover, if anything should happen to the parents of the child, those relativ_es who stand in a *yande* relationship, i.e., those relatives who are poten tial spouses of the parents, are responsible for its up bringing and its care. In view of the circumstances, namely, that people of the opposite sex who stand in the *yande* relationship have sex relations with one an other, they can hardly be regarded as godparents in the usual sense of the term.

Social Stratification

Beyond the stratifications of sex and age, Siriono society is little differentiated as to status. A form of chieftainship does exist, but_ the prerogatives of this office are few. Such status divisions as castes, social classes, and specialized occupations are quite un known.

Apart from age and sex, such status *d*ifferences as-do exist *dep**end rimaril upon how the duties of e V' '°..."*

}' e are performed. If a man is a good hunter,. his status is apt to be hi h; if he is a oor rovider it is a t | |

to e ow. *H*is status as a hunter, moreover, is en hanced considerably b his being a virile sex artner• *having* several wives is a mar of distinqtion. A woman s status, too, depends not only on her being active mthe economic purswts of the family bt1t on her

being•a. good childbearer as well. A *childless woman* stands g;t the bottom of the status hierarchy within the f*a*mi*l y.*.

-*Little* status is gained through genealogy. Within the band, those people who are most closely related to the chief probably enjoy the greatest number of privileges, but I was unable to confirm this as. an out standing feature of Siriono society. It is probably true, to be sure, that the brother of a chief enjoys more privileges than a distantly related cousin. *But in a so* ciety *like* the Siriono, where the food supply is both *sca*rce and insecure, a person's status necessarily de pends more on his ability as a provider of loocl than . on •any other single factor. This was clearly brought home to me time and time again while I was at Tibaera.

One case deserves special mention. Enia (Knee)

,wa the brother-in-law of chief Eantandu. He had had some contact with the_ outside, but because ol mal tteatment had run away from his *patr6n* and retul:Ded to" native life. He was an intelligent man with an un uual ability (for a Siriono) to adjust to white civi lization. He was a hard worker and reliable, and he knew .considerable Spanish. His one weakness was that he could not hunt as well as his countrymen. ime after time I saw *him* leave with his bow and arrows, and time after time watched him return empty handed, while his fellow tribesmen left after him on the same trail and returned with game. He was gen erally referred to as "not knowing how to hunt." He was openly insulted at drinking feasts for his inability to hunt. *He* had lost at least one wife to better men. His status was low;, his anxiety about hunting high. He had, however, made some kind of readjustment to native life by planting more crops and collecting more forest products than the othe!-"s and trading *some* of his vegetable products for meat. But still he was not satisfied. Noting this condition, I set out to raise his status. First he accompanied me with his bow and ar rows on hunting trips. He carried in game which I shot, part of which Was given to him and which we told others was shot by him. His .status began to im prove. Shortly thereafter I taught him to use a shot gun, and he brought in game of his own. Needless to say, when I left Tibaera he was enjoying the highest status, had acquired several new sex partners, and was insulting others, instead of being insulted by them.

Several wives and numerous c ildren are the princi pal status marks of a man. Similarly, to be married to a man who is a good hunter and to have several children are the most important status marks of a woman. Plu ral wives not only mark a man as a good hunter but as a virile sex partner as well. Men boast a great deal about their sexual prowess, as well as their hunting prowess, and in cases where they are married to sev eral wives they are careful to see that only allowable sex partners have any relations with them. Conse quently, when overnight trips are made into the forest, a man generally takes all of his wives with him.

Rigidly marked age groupings are not found in Siri ono society, although there is a recognition, as in most societies, of the categories of infancy, childhood, adulthood, and old age. Except in the case of the pre marital rites for girls, the physiological changes that accompany maturation .are little recognized or cele brated by special ceremony. A*s.* a mark of adulthood, *ho*wever, men and women, after IBeare married and nave -c • *e*n*,* are ,5fab ed in the arms with the dorsal spine of a stin . a , which practice leaves scars that are signs <?f maturity. As a *person grows older, bloo* - fetting is *continue_ d2to rejuvenate him by getting rid* of *h*is old blood. Tlte society thus. seems to recognize *t*hat the s*h*arpest break in age occurs between child hood and adulthood. The other transitions are very gradual and arenot marked by ceremony.

It is difficult to generalize as to the status of women. Although they are dominated by the men, it can hardly be said that women occupy a position much inferior to that of the men when one considers the conditions under which this society exists. During childhood there is no noticeable preferential treat ment of boys. On the basis of the sex division *.of* labor the men do as much or more work than the women. Hunting is exclusively a task of the men, while col lecting and agriculture are joint pursuits of both men and women. Women enjoy about the same privileges as men. They get as much or more food to eat, and they enjoy the same sexual freedom. They are not re stricted from holding drinking feasts and dances, nor from participation in bloodletting ceremonies. After marriage, moreover, women continue to live with their parents and to enjo:y•the latter's protection.

Chieftainship

Presiding over every band of $,iriono is a chief *(ererekwa*), who is at least nominally the highest _g{ ficial of the group. Although his authority theoretically extends throughout the band, in actual *p*ract*ice* its exercise de ends alniost entirely upon his personal qualities as a leader. n any case, . ere is no o • gation to *o*he *the orders o*f a chief, no unishment for non fulfillment. Indeed, little attention is paid to w at is said by a chief unless he is a *member* of .one's ime.

diate family. To maintain his prestige a•*cfi1ef* must

1611,Min a superior fashion, those _obllgations r qtiired of everyone els

The prerogatives of chieftainship are few. Although the title *ererekwa* is reserved by the men for a chief, if one asks a woman, "Who is your *ererekwa?"* she will gh;*:* | | invariably reply, "My husband." The *p*rinc*ipal* privi lege of a chief, if it could be called such, is that it is

.§ occupy, wi!fi his i;mmecliate familr, the

centero e house. Like any other man he must make his bows and arrows, his tools; he must hunt, fish, col lect, and plant gardens. He makes suggestions as to migrations, hunting hips, etc., but these are not always followed by his tribesmen. As a mark of stiltus, how ever, a chief always possesses more than one wife.

While chiefs complain a great deal that other mem bers of the band do not satisfy their obligations to them, little heed is paid to their requests. I was told, for instance, both by Indians and by whites who had had contact with them, that the chief was entitled to a share of every catch of game that was made. While I was living at Tibaera, I had an excellent chance to check this matter empirically, and I f-0und that this was not, as said, usually the case, but rarely so. *T*he *more general rule was to avoid giving the chief any* tliJng, if P9ssible.

The following is an example of the sort of *t*hing that was constantly occurring at Tibaera. Kwandu (Porcu pine), a member of the band and extended family of Aciba-e6ko (Long-arm), the chief, was absent for sev eral days with his younger brother on a hunting expe dition. On retumnig to camp, they brought with them about a dozen tortoises of good size. These were tied up with lianas and hung on beams in the house, one or two-.of them being butchered each day. Aciba-e6ko, desiring meat, first made a direct request to Kwandu, but was brushed off and given nothing. Following this he made public remarks without mentioning names that *mbw* (countrymen) were keeping all the meat to themselves and not giving any to him, the chief. The owners of the tortoises still paid no attention to him. Finally, after about three days, Aciba-e6ko, having re ceived nothing, became so angry that he left for the hnnt

with his family and stayed away for about a week. He returned with considerable roast meat which he distributed to no one else but members of his im mediate family.

In eneral, howev*er,* chiefs fare better than other

Il,!bers, o . e an . . . eir requ sts more {r.egr,.ently b.e-ar fruit than those of others, because Ghie.fs are the best hunters and are thus in a *better position tha:μ* piost to i:eciprocate for any favors done them. In speaking of chiefs, both past and present, informants always referred to them as "big men." Chiefs know the most about hunting, about tlie habits of animals, about how best to surround a band of peccaries; they are the best composers of songs, the most powerful drinkers; they know the most about hunting tapirs and harpy eagles; they have the most wives and children. In short, chiefs know more about things and are able to do them better than anyone else. Consequently they command more respect than the average man.

Chieftainship is normally a hereditary office and passes patrilineally from father to eldest son, provided the latter is a good hunter, is mature, and possesses the personal qualities of leadership. In case an eligible *son* is lacking, the office may pass to the chief s brother. It so happens that the chiefs whom I knew had both inherited the office from their fathers. One of them told me, however_, that were he to die the office would be inherited by his younger brother, be cause he had no eligible son to whom it could pass.

Law and Social Control

The legal system by means of which the relations beeen band members are governed is not an elab orate one. In such a simple society as that of the Siri ono, most members of which are united by ties of blood, only a small body of customary law is needed to maintain what order does exist. Moreover, the social norms that prevail are elastic enough to allow for a considerable range of behavior, depending upon the immediate conditions of life. Thus, although one of the important legal norms is that of sharing food within the extended family, such sharing rarely occurs unless the supply of food is abundant. Fre quently, in fact, food sharing does not go beyond the nuclear family, even though the quantity of food may be more than adequate to take care of imme diate needs. Under such conditions, one may be accused of hoarding food, but the other members of the extended family can do little about it except to go out and look for their own.

Within this society, the formal agencies of social control are almost entirely lacking. No such thing as a police force exists, and, as we have already seen, chieftainship, although theoretically an office of some power and distinction, is actually relatively unimpor tant as a means of controlling behavior. A chief does not interf ere in the disputes of others, and when in volved in disputes of his own, others pay little atten tion to them. Sorcery, moreover, is almost unknown as a means of social control. The handling of one's af fairs is thus largely an individual matter; everyone is *ex*pected to stand up for his own rights and to fuIB.ll *his* own obligations.

In spite of *the* extreme individualism of the Siriano inthis respect, there are, nevertheless, certain incen tives to conf orm to the legal norms that do exist If, for instance, a person does share food with a kinsman, he has the right to expect some in return, and if a man does :occasionally share his wife with a brother, he has the right occasionally to share that brother's wife. Reci roci , however, is ahnost always forced, and is *som.etimes* even osti e. ne usua y as to demand something in return f*o*r that which one has reluctantly given. Indeed, sharing rarely occurs without a certain amount of mutual distrust and misunderstanding; a person always feels that it is he who is being taken advantage of . Nevertheless, this type of forced rec iprocity does seem to be one of the principal rewards of conf ormity.

So intense is the individualism of the Siriono and so -

elastic il1e legal system, that crime and punishment are rare. Murder is not condo11 d but is **.almost un** known. Only two cases';'*b*oth of which happened a number of years ago, came to my attention. In one of these a man killed his wife with his bow and arrow during a drinking feast, and inthe second a man killed his sister by throwing a club at her from a tree. In both instances the murderers were banished (or left) the band for a considerable time, but they returned later and resumed normal life.

Cases of premeditated mmder were unknown. In formants told me, however, that under circumstances of this kind the *lex talionis* would be rigidly applied. Accidental homicide is not punish.ed, and other of fenses against life, such as abortion and infanticide, seem to be unknown.

Minor assaults, resulting from quarrels that take place over food and sex or from those that arise during drinking feasts, are relatively common. While physi cal aggression against one another during quarrels meets with a certain amount of public disapproval, it usually goes unpunished. Assaults, however, often result in strained relations between the parties in volved for some time after they happen.

The absence of rigidity in standards of morality makes for relatively few offenses in the reahn of sex. Such crimes as incest and rape are rare. When they do occur, they are believed to he followed by an auto matic supernatural sanction: the offender becomes sick or dies. Adultery, on the o.er hand, is common, and if committed discreetly frequently goes unpun. ished. If adultery occurs too often, however, an irate husband casts out his wife and she becomes subject to public ridicule. She is accused of being *ecimbasi,* i.e., of having too strong sex desires.

Theft is unknown, except in the realm of food. Even the steallng of food rarely occurs because the con ditions giving rise to the crime seldom exist: food is not plentiful, and one's immediate supply is hastily eaten. Some theft of food takes place at night, es pecially by the aged, but in instances of this kind the guilty parties receive no other punishment than that of being publicly accused of the crime, which they always emphatically deny.

Justice is an informal and private matter. Grievances are •settled between the individuals involved, or among the members of the family in •which they oc cur. Generally speaking, it would seem that the main tenance of law and order rests largely on the p.rin cipal of reciprocity (however forced), the f ear of supernatural sanctions and retaliation, and the desire for public-approval.

In-group Conflict

One c*a*nnot remain long with the Siriono witl1out noting that quarreling and wrangling are ubiquitous. Hardly a day passes among them when a dispute of some *k*ind does not break out. Quarrels are e*s*pecially common between husband and wife, between co wives, between sons-in-law and parents-in-law and between children of an extended family, but they occu.r between all types of people, relatives and non relatives. Quarrels are usually settled between the disputants who start them. This is especially true of those which take place in the nuclear and extended families. *H* a man is quarreling with his wife or mother-in-law, for instance, other people seldom inter vene. If two members of different extended families become involved in a quarrel, however, relatives of the disputantS. may come to their aid. Children, for ex ample, are frequently observed striking women with whom their mothers are quarreling, and brothers often come to each other's aid if they get involved in a quarrel outside the family. The Siriono, however, maintain no arbiter of disputes. The chief, for instance, seldom takes part in settling differences that occur outside of his family.

Data were recorded on seventy-five disputes that came to my attention, apart from those that took place at drinking feasts. It is significant to note that forty-four of them arose directly over questions of food (mostly between women or between husband and wife); nineteen broke out over questions of sex (between husband and wife, co-wives, and women) ; only twelve were assignable to various other causes. Here we have overwhelming evidence of the impor tant role played by food in Siriono society. It is the most prominent cause of in-group strife.

People constantly complain and quarrel about the distribution of food. They accus each other of not sharing food, of hoarding food, of eating at night, and of stealing off into the forest to eat. This was par ticularly noticeable at Tibaera, where Silva and I made considerable effort to initiate co-operative planting of gardens-a custom foreign to the Siriono under aboriginal conditions. Several acres of land were co-operatively cleared and planted with maize. While the maize was ripening, bitter complaints were registered, and quarrels took place ever its distribu tion, although there was plenty of maize for every one. People accused each otl1er of stealing maize before it was ripe, of harvesting more than they had a right to, of transporting it into the forest and eating it on the sly. M.en complained that they

had done most of the work, while the women were eating most of the crop. In fact, few men ventured on the hunt at this time for fear of returning to find that others had eaten most of the crop of maize.

Quarreling over the allotment of meat is equally common. While the distribution of meat is ordinarily confined to the extended family because the supply is seldom abundant, there is usually someone within the family who feels that he is not getting his share. Especially do the men accuse the women of hoarding meat, of eating it when the men are not around, or of consuming more than their share. Ema said to me one night, "When someone comes near the house, women hide the meat; they cover it with leaves. When you ask them where the meat is they tell you there is none; They eat in the night and steal off in the forest to eat. Women even push meat up their vaginas to hide

1't."

The reluctance to share meat is clearly reflected in the behavior of returning hunters. The bigger the catch the more sullen the hunter. The hunter adopts this pose so as not to be approached for game. On returning from the hunt a man sometimes does not even carry his game into the house but leaves it be side the trail near the house and comes in empty handed, aggressive, and angry. Upon entering the house he throws himself into the hammock. This is the signal for his wife or whoever else is around to bring him a pipeful of tobacco, which he sm•okes without saying a word. If he has brought the game into the house, his wife sets about to prepare it; if it is still out in the forest, she goes out to retrieve it. The hunter maintains his unapproachable manner un til after the game has been cooked and eaten.

Quarrels over sex can hardly be divorced from those over food. In this respect men seldom express aggres sion against other men who have seduced their wives but center it on their adulterous wives. Women, on the other hand, express little aggression against their adulterous husbands but channel it against the women who have caused their husbands to err. Women are thus believed to be the cause of most sexual disputes. Women may chide their husbands for being unf aith ful, but the fact that the men always respond with more violent accusations that the women are unfaith ful usually settles the dispute before it culminates in a violent end.

Drinking feasts are occasions oii which much latent antagonism and aggression are expressed between men. At these feasts men openly air their complaints? whether these have to do with food, with sex, or with any other subject of contention. The disputes are set tled by wrestling matches, and aFe usually forgotten after the period of drunkenness is over. It is interest ing to note that aggression at drinking feasts is limited to wrestling matches; any other type of fighting is frowned upon and is usually stopped by non-partici pant men and women. On one occasion Eantandu, when drunk,_ struck an opponent with his fists. Every one began to clamor that he was fighting unf airly, "like a white man." He stopped immediately.

Except at drinking feasts antagonisms seldom lead to violence, and even at these the participants are usually so drunk that they are unable to harm one another. On other occasions strong words are used between disputants, but fighting with weapons and clubs is rare. This is especially true of the me:n, who .seldom express direct aggression against each other, although among women quarrels frequently culminate in bat tles with digging sticks.

Men often dissipate their anger toward other men by hunting. One day Eantandu was angry with Mbiku, who had hunted coati and given him none. Flushed with anger, Eantandu picked up his bow and arrows and departed for the hunt. When he returned about five hours later with a couple of small monkeys, his wrath had subsided considerably. He told me that when men are angry they go hunting. If they shoot any game their anger disappears; even if they do not kill anything they return home too tired to be angry.

If enmity between families becomes intense, one of them may migrate to the forest for a while until hos tile' feelings subside; if it becomes unbearable, one of them may split off from the band and join another band, or several extended families may break off from the band and start a new band of their own. Seldom are differences so deep and lasting, however, that this latter method of adjustment need be resorted to.

Warfare

Contrary to popular misconception the Siriono are not a warlike people. In this respect such writer:s as Nordenskiold (1911, Vol. 57, pp. 16-17) have created a distorted picture of them. Warfare between bands simply does not exist, and where the Siriono have come in contact with other peoples, Indian or white, it is they who have been raided and rarely they who have done the raiding. In fact, the entire history of the

Siriono, from what little we know about it, seems to refleet a strategy of retreat rather than one of attack. Whenever they have come in contact with other groups, they have been forced to retire deeper and deeper into the impenetrable jung le in order to escape defeat" and in retiring from previously occupied lands the.y seem to have made few £rm stands in def ehse of theii: territory.

The distribution of the Siriono today seems clearly to bear witness to this policy of withdrawal in the face of contact. The aboriginal groups that still sur vive are spread over an extremely wide area, and tl1ey are located in isolated pockets of forest lands that are most inaccessible and least desirable, where they have no contiguous relations with one another and where they are surrounded by hostile peoples. Only the fact that the Siriol)o adhere to a semi-nomadic mode of existence, and that the unpopulated lands of eastern Bolivia are still extensive and relatively rich in food plants and animals_, has made it possible for the few of them who still survive in the. forests to stay beyond the reach of civilization and extinction.

The best evidence we have for the relatively un warlike character of the Siriono comes from the cul• ture itself . Here we £nd neither the organization, the numbers, nor the weapons with which to wage war, aggressive or defensive. Moreover, war does not seem to be glorified in any way by -the culture. The: child is not educated in the art of war, nor is there a warrior class among the adults. Furthermore, the care with which the Siriono avoid contacts with other peoples and the fear with which they regard their more war like neighbors bear witness to the punishment they have suffered as a group in thepast.

Attention should be called, l1owever, to the fact that on occasion the Siriono have retaliated for outbreaks against them by others. While they seem rarely, if ever, to have responded to the attacks made upon them from the south by the so-called Yanaigua, and from the north by the Baure, for the purpose of killing their men and capturing their women and children, they have sporadically killed whites and missionized Guarayos Indians (with bows and arrows) , both in retaliation for killings and for the purpose of securing iron tools and food. The warlike reputation of the Siriono, in fact, seems to have grown up as a result of these few isolated and unorganized raids, which reached their peak during the last rubber boom (in the 1920s), when there was a large influx of rubber tappers into some of the areas occupied by them. The *siringueros,* whenever possible, rutlilessly murdered the Indians, who in turn occasionally retaliated by waylaying a rubber worker and dispatching him for his machetes and axes. But when the rubber boom ended in 1928, by which time tl1e Siriono were proba bly in possession of an adequate supply of tools, most of the whites left the area and the raids stopped. Shortly thereaf ter peaceful contact was established by a few of the whites who remained in the region. To day the Siriono who wander in the vicinity of the Franciscan missions of Guarayos occasionally steal maize and manioc from the g.ardens adjoining them, but people are seldom killed as a result of these forays. Generally speaking, when the Guarayos have contacts with the Siriono, relations are cordial.

The enemies which the Siriono most fear today are the so-called Yanaigua, who harass them in the south, and a small group of what are probably wild Baure, who sometimes attack them in the north. Almost nothing is known of these two groups of Indians, except that they are unfriendly and warlike. Both tribes are equated by the Siriono under one term, *kurukiva,* a kind of monster, and are carefully avoided by them whenever possible.

Chapter IX. SEX AND THE LIFE CYCLE

Sex

THE Siriono say of a person in whom sexual desire is aroused that he is *e,ci1.!"E* •To be *eoimbasi* is all right when sexual activity is confine*d* to intercourse with one's real spouses, and occasionally with one's poten tial spouses, but one who takes &grant advantage of his sex rights over potential spouses to the neglect of bis real spouses is accused of being *ecimbasi* in the sense of bei:µg promiscuous. Such accusations not in frequently lead to fights and quarrels.

Romantic love is a concept foreign to the Siriano.

Sex, like hunger, is a drive to be satisfied. Conse qdy It is ne1the?niuch hilii bited *6y* altitudes of modesty and decorum, nor much enhanced by ideals of beauty and charm. The expression *secubi* ("I like) is applied indiscriminately to everything that is enjoy able, whether it be food to eat, a necklace to wear, or a woman to sleep with. There are, of course, certain

,ideals of erotic bliss, but under conditions of desire these readily break down, and the Siriono are content to conform to the principle of "any port in a storm." In eneral, men refer oun women to ol .. In spe g o eir sexual affairs, men always express a fondness for a *yukwaki* (i.e., a girl of about the age of pubercy), while they refer with distaste to a *kon6mbi ac£kwa* (literally, "tortoise rump," i.e., a woman who is old and has a wrinkled rump like that of a tortoise).

The preference for youth is also clearly noticeable among the women, who on occasion have intercourse (obviously pleasurable) with their husbands' younger brothers even before the latter show signs of puberty. Besides being young, a desirable sex partner-espe cially a woman-s*hould also be fat.* She should have big hips, *g*ood-siza but firm breasts, and a deposit of fat on her sexual organs. Fat women are referred to by the men with obvious pride as *ereN ekida* (fat vulva) and are thought to be much more satisfying sexually than thin women, who are summarily dismissed as be ing *ikaNgl* (bony). In fact, so desir:able is corpulence as a sexual trait that I have frequently heard men make up songs about the merits of a fat vulva. Un fortunately, I was never able to record them.

In addition to the criteria already mentioned, cer tain other physical signs of erotic beauty are also rec ognized. A tall | er | n is | referred to a short one; facial | features | | | •e es s o e. Little | attention is paid to the ears, the nose, or the lips, un less they are obviously deformed. o d

•t and is ther re d ilat certain amount • ha• • est .., to intercourse. A woman's vulva should be small and fat, while man's penis should be as large as possible.

Although love is not idealized in any romantic way by the Siriano, a certain amount of aHeetion does exist between the sexes. This is clearly reflected in the be havior that takes place around the hammock. Couples frequently indulge in such horseplay as scratching and pinching each other on the neck and chest, poking fingers in each other's eyes, and even in making passes at each other's sexual organs. Lovers also spend hours in grooming one another-extracting lice from their hair or wood ticks from their bodies, and eating them; removing worms and spines from their skin; gluing feathers into their hair; and covering their faces with uruku (*Bixa orellana)* paint. This behavior often leads up to a sexual bout, especially when conditions for intercourse are favorable.

Sexual advances are generally made by the men, who employ various approaches to obtain their end, depending upon the circumstances existing at the mo ment. During the day, when there are people around, a man usually whispers his desires to a woman, and the couple steals off into the fores,t. If a man is out in the forest alone with a woman, however, he may throw her to' the ground roughly and take his prize without so much as saying a word. During the night, when the Siriono do not venture out of their hut and when all sex activity takes place in the hammock, a man with desire simply waits until

the house quiets down and then wakes up the woman with whom he wishes to have intercourse. At this time, of course, ex tramarital relations almost never occur.

Much more intercourse takes place in the bush than in the house. The principal reason for this is that pri vacy is a1most impossible to obtain within the hut, where as many as fifty hammocks may be hung in the confined space of five hundred square feet. Moreover, the hammock of a man and his wife hangs not three feet from that of the former's mother-in-law. Further more, young children commonly sleep with the father and mother, so that there may be as many as *4* or

5 people crowded together in a single hammock. In addition to these frustrating circumstances, people are up and down most of the night, quieting children, cooking, eating, urinating, and defecating. All in all, therefore, the conditions for sexual behavior in the house are most unf avorable(Consequently intercours, is indulged in more often in some secluded nook ii the forest.')

Between married couples a good deal of sexual ill tercourse takes place in the late afternoon in the busl near the water hole or stream upon which the band camped. It is rarely indulged inmore than once a da} When the afternoon meal has been eaten, and befor retiring, couples often proceed to the water hole t bathe and, after bathing, indulge insexual intercourse: Unmarried couples and potential spouses, of cours{ must take advantage of whatever opportunitiearisE A favorite spot for sexual indulgence between poteIJ tial spouses, when there is one near the camp, is patch of ripening maize, which is generally both nea at hand and secluded. _

The *s*exual act itself *nyemeno* or *cuki cuki) is a vie* lep.t _a:n ra;gid affair.There are few if any prelimina1 ies. Kissing is unknown, but oral stimulation is-not al: sent; lovers have the habit of biting one another on th neck and chest during the sex act. Moreover, as th emotional intensity of coitus heightens to orgasn lovers scratch each other on the neck, chest, and fort head, so that they often emerge wounded from th fray. Although people are proud of them, these lov scars sometimes cause trouble (in case of extramariu intercourse), because they are visible evidence of th infidelity of a husband or wife.

During coitus in the bush, the woman lies on ht: back on the ground with her legs spread apart an her 'knees flexed. The man rests his knees on th ground between her legs; his elbows also rest on th ground on both sides of her body, leaving his hand free for scratching activity. The male plays the mo active role during coitus, moving on the woman wit considerable force and rapidity. The woman, however, does not remain completely passive, but adjusts her seH to the mo:vements of the man. Emotional pitch is intense during coitus, which is often accompanied by farting, a habit from which considerable pleasure is apparently derived.

When intercourse takes place in the hammock the positions are essentially the same, but it is more diffi cult to maneuver because of the added movement of the hammock. Sometimes during the height of the act a man's knees sup through the strings of the hammock and his whole emotional set is disturbed. Informants frequently made jokes about their fellows in this re spect. I even knew one man who injured himself rather seriously when his knee struck the ground.

Generally speaking, great freedom is allowed in matters of sex. A man is permitted to have intercourse not only with his own Wife or wives but also with her (their) sisters, real and classificatory. Conversely, a woman is allowed to have intercourse not only with her husband but also with his brothers, real and clas sificatory, and with the husbands and potential hus bands of her own and classificatory sisters. Thus, apart from one's real spouse, there may be as many as eight or ten potential spouses with whom one may have sex relations. There is, mor.eover, no taboo on sex relations between unmarried potential spouses,. provided the women have undergone the rites of maturity. Virginity is not a virtue. Consequently unmarried adults rarely, if ever, lack for sexual partners and frequently indulge in sex. In actual practice, sex relations between a man and his own brothers' wives, and between a woman and her own sisters' husbands, occur frequently and without censure, but intercourse '\Yith potential spouses more distantly related occurs less often and is apt to result in quarrels or lead to divorce.

Food is one of the best lures for obtaining extra l!}arital sex partners. A man.often uses game as • a means of seducing a potential wife, who otherwise might not yield to hls demand. A concrete case will best illustrate the manner *in* which thisi done. Aiba e6ko (Long-arm) had a potential wife, a

classificatory cross;..cousin, whom he had. been trying•to seduce for some tim.e without success; .she had consistently re fused him her £av.ors for 'fear of provoking a quarrel with her husband. One day, however, whea .tliere• was little .or no meat in camp and thewoman's huband was off on the hunt, Acrba..e6ko returned witli his fam ily from a chase •on which he had fieen>absent for sev eral days and on which he had been successful in nagging considerable game, including a peccary which was very fat. His potential wife being hungry, was most anxious to secure a share of the catch. She waited until Aciba-e6ko was alone–hfs wives had gone for palm cabbage and water-and approached him with the following request:•*ma nde s6ri ta{ etima; sedial"wa"* ("Give me a P.eccary .leg,; Iam hungry'). He replie4 *"e.no-, euki cuki airane"* ("O.K.,. but nrst sexual intercourse"). She replied, *"ii; manedi gadr'*

("No, afterward, no. less"). He said, *"ti, namo gadi*

("No, •now,. no less"). She replied, *"en:Q, maNgiti?"*

("O.K., where?"). He answered, *«ai!ti* (<'There"), pointing in the direction of the river. Both of them set•out, by different routes, for the river, and returned, also by different routes, h: woman carryjng firewood, about half an hour later. He secured his prize; she, hers.

Of course, a man is often frustrated in -his attempts to secure e;x:tramarital intercourse by the• methods indicated above. Failures inthis respect, however, re sult not so much from a reluctance •on the part of a woman to yield to the•desires ofa potential husband who will give her game, but more from an uµwilli.ng ness -OJl the p of _ fhe ma,µ's own w.ife or wives to p_art witl\ any of the meat that h has acquired, least of all to one of h.is.potential ,wives.•In general, the wife sup_ervises the distribution of meat, so that if any part of her huso_and's catch is missing. she suspects him of :carrying on an aifair on the outside, which is grounds for dispute. Consequently men try to pursue theb: extramri.tal intrigues as secretly as possible. In s..tead fJf attempting to distribute meat to _a potential wife after game.has .a.heady been 'brought in from the forest, they. m.ay..send in some small animal or a piece of game•to the woman -through an intermediary, and thtts ,reward;her fer the favors they have alreadr, re ceivefl or expect to 'receive in tlie futote. I kno of ttweeo. suc*h* instances inwhich a woman's brother played role of messenger, and in a ntimbel". of 9ases Ioo acted as agent for two levers who were having diffi culty _ in carrying out •their affait. Fortunately, Iwas seldom, suspected -of collusion.

Fights and quarrels ,ovel' sex are common but occur less often than fights•over food. As has already been mentioned, such quarrels ,arise lai:gely as a result <;>f too frequent intercourse with a potenti l spouse to the neg e<. ! _

_ ouse; is is •rea . w . at a .:ery_ amounts o among • e Sirio:µo. 1-Jowever e 5 •

*i*nuch men ;are •-cful1ed by .ti1*e*h wives for deceiving them sexually, this seems to have little effect on their behavior, for they are constantly on the alert for a chance to seduce a potential wife with whom they have not had sexual relations, or to carry on an affair with a *yukwaki* {young girl) who has passed through the rites of puberty. In plural marriages, however, I rarely noted pronounced sexual jealousy between the wives, possibly because most plural *ma rriages* are of the sororal type.

In all sexual relations, basic incest taboos must be strictly observed. That is to say, it is strictly forbidden to have sexual intercourse with any member of one's nuclear family, except one's spouse. Among the Siriono these incest taboos are generalized to include non family members who are designated by the same kinship term as those used for members of the nuclear family. Consequently one may not have sexual re lations with a parallel cousin, with the child of a sib ling of the same sex, with the child of a parallel cousin of the same sex, with a sister or parallel cousin of the mother, with a brother or parallel cousin of the father, or with the child of anyone whom one calls "potential spouse.„ In addition to these taboos, which are clearly reflected in the kinship system, sex rela tions with the following relatives are also regarded as incestuous: grandparent and grandchild, parent-in-law and child-in-law, uncle and niece, aunt and nephew, a woman and her mother's brother's son, and a man and his father's sister's daughter.

Violations of incest taboos are believed to be pun ished by the supernatural sanction of sickness and death. However, I never heard of a -case of incest occurring among the Siriono, even in mythology. The

reason for this probably lies in the fact that the sex drive is rarely frustrated to such an extent that one is tempted to commit incest.

Atypical sex behavior is also rare. I heard of no cases of rape, i.e., of intercourse with a girl who had not yet undergone the rites of puberty. When a man uses a certain amount of force in seducing a potential spouse who has passed through the rites of puberty, this is not regarded as rape.

Masturbation is likewise not a c*ommon* juvenile pastime, and I never heard of it being practiced by adults. Chilchen, especially boys, however, finger their genitals a great deal without censure, and when they are young their parents masturbate them frequently. Among the men the pattern of fingering the penis, especially tugging on the foreskin, carries on into adult life. Since it occurs most frequently when they are standing around, it is probably an automatic reaction to anxie_ty; when a Siriono is worried, he usually has hold ef his penis.

In so far as I could tell, only one man showed any tendency toward homosexuality, but this never reached the point of overt expression. By his fellows he was regarded more as a woman than as a man. He had never had a wif e and spent most of his time with the women. He lived next to his only brother, was re garded as harmless, and made his living largely by col lecting and trading some of his products for meat. I was able to get almost no information from or about him.

Only one other case of sexual perversion came to my attention, and this was of a man called Et6mi (Lazy) . Besides being what his name suggests, Et6mi had,. according to the women, a sadistic mania for wounding them on the breasts during sexual inter course. Consequently they would have nothing to do with him. He had no wife and was most uncommuni cative. His favorite pastime-the reason for his nick name-was resting, which he managed to do a great deal of by the following ingenious device. He was an expert at tracking tortoises. He would gather as many as ten of them at a time and hang them up alive on a beam in the house. He would then butcher one or two each day, meanwhile resting in his ham mock, until the supply was gone. He spent long pe riods of time alone in the forest, and was one of the few Siriono out of whomIcould worm no information whatsoever.

Chastity not being a virtue, there are few occasions when sex is taboo among the Siriono. During men struation sex relations are forbidden, but during preg nancy they are recommended and indulged in up until shortly before delivery. Following childbirth, a woman refrains froin intercourse for abol\t a .month, but there is no prescribed period after delivery during which she must abstain. Following the death of a spouse, a widow or widower may resume sex rela tions within a matter of three days. There are, more over, no other ritual or ceremonial occasions when adults are restricted from participation in sexual ac tivity.

Reproduction

With respect to conception, there is no lack of knowledge that it is caused by sexual intercourse. All informants agreed that a woman could have a child by no other means. But no crystallized theories of how the process takes place have been formulated. Con stant interviewing on this subject yielded nothing but negative results.

The relationship between menstruation and preg nancy is also clearly recognized by the Siriono, but again their ideas on these matters have not attained crystallized form. Informants were convinced that women had to menstruate before they could have children, but they were unable to supply any of the reasons why. My investigation on these questions, moreover, led me to the conclusion that the Siriono do not correlate the menstrual cycle with the lunar cycle inany special way.

In a certa in sense a distinction is made between menstrual blood and ordinary body blood. The former is always designated as *ereN eruki* (vagina blood), while the latter is simply referred to by the general term -*e.ruki* or "blood." V\That the differences between them are, however, the Siriono are quite unable to ex plain except in the vaguest sense. Contact with men strual blood, especially in sexual intercourse, is re garded as harmful, while contact with ordinary body blood is considered innocuous.

Although menstrual blood is looked upon as some thing dangerous to the Siriono, they have not devel oped attitudes of disgust or horror toward it. During menstruation women are neither isolated from the rest of the group nor restricted from participation in such household activities as cooking that bring them into intimate contact with other people. They are not sub ject to food taboos and are not even required to sleep apart, although no sexual intercourse is indulged in at this time. All of my *m*al*e informants told me that they* had never had intercourse with a mens*t*ruating woman and tliat to do so was very dagero!\liut there were VaHed oprmons as to what m1 ht ha - en to ose *w o i* . ome said that they woul e sick in *t*he penis; others that they would be "blood sick";' still others that they would waste away and soon die. M,enstruating women take no special precautions to dispose of old blood, and since they ,.}Vear nothing which will soak it up, they are not infrequently seen with dried menstrual blood on their legs. As a general rule, however, they bathe more often during the menstrual period than at other times.

One of the principal signs of pregnancy is the ces sation of the menses. If a woman has never before been pregnant, however, some doubt may be ex pressed as to whether she is going to have a child until her breasts begin to swell. One dayIwas joking with Ai-a, a woman who had no children and whose husband had been absent for some time. I suggested that she looked as if she were pregnant and hinted at the possibility that her husbands brother-an eligi ble sex partner-was responsible. Although she ad mitted having had frequent intercourse with this co husband, she emphatically denied that she was with child. To prove her point she squeezed her breasts to demonstrate that they were dry and not enlarged. Few other signs of pregnancy seem to be recog nized. An extended abdomen is an unreliable sign; most of the Siriono women have distended stomachs from the habit of overeating when they can. Morning sickness also does not seem to be regarded as a preg nancy sign; at least, I was unable to get any rcogni tion or observe any cases of it among the pregnant women whom I interviewed.

In some cases a woman may know that she is preg nant because she has dreamed it. One morning Eantandu told me that his wife was with child. Since she showed no outward signs of her condition, I asked her how she knew that this was true. She replied that she was certain of it because the night before she had had a dream that she had a very small child inside of her. Upon interviewi.ng her further, however, I found that this dream merely corroborated excellent physi ological evidence for her pregnancy, namely, that she had not menstruated for some time.

Once a woman is pregnant, the Siriono have no methods of divining the sex of the child or of forecasting the time of *its* delivery. When first conceived, the child is believed to be a miniature replica of the inf ant at the time it is born, and intercourse is thougn,t to stimulate the growth of the infant in the mother's womb. Thus intercourse is desirable throughout preg nancy. During the earlier stages it should be slow and not occur too often (about every two or three days), for the child is very small, but during the latter stages it should be more rapid and occur more often (at least once a day), for the child *is* large and anxious to be born.

Except for being subject to certain food taboos, the normal life of a woman is little upset during preg nancy. She goes about her regular work until shortly before the time of her delivery. She may not eat coati lest the infant be born with sores and a very long head. The guan, the howler monky, the macaw, and the toucan are taboo on the grounds that if they are eaten the infant will cry a great deal when it is born. Like wise forl:Hdden is the meat of the armadillo. A viola tion of this taboo will cause the infant to have great fear, like the armadillo, which crosses its arms in its hole when it is caught. Other forbidden foods include the night monkey, whose meat cannot be eaten lest the infant inherit its tendency not to sleep at night; the anteater, porcupine, and honey bear, lest thein fant be born clubfooted; the jaguar, lest the infant be stillborn; turtle eggs, lest the mother have a miscar riage or be unable to deliver the infant and die; and the harpy eagle, because it is taboo for all people ex cept the aged.

Some of the above food taboos are generalized to the father, but not all of them. The only ones which he usually observes are the restrictions on eating harpy eagle, anteater, and howler monkey, which in a strict sense are not pregnancy taboos, since these animals are never supposed to be eaten by anyone but an old person. However, these food taboos seem to be more carefully observed by the men when their wives are pregnant.

Both the pregnant woman and her husband are also careful not to eat a double ear of com or a double root of manioc lest twins be born. They likewise avoid eating twisted or def ormed plants of any kind lest this characteristic be transferred to their off spring inthe form of clubfeet.

A woman's diet during pregn:ancy, however, is not much reduced by the above-mentioned food taboos. She is allowed to eat all vegetable foods, fruits, and fish. In addition, she still has a wide selection among meat foods, of which the following are the principal ones: tortoise, turtle, curassow, duck, cormorant, spider monkey, capuchin monkey, squirrel, peccary, tapir, agouti, paca, capybara, crocodile, hawk, vulture, and marsh deer. Such animals as the tapir and peccary are especially favored because they are regarded as valiant and industrious, and if their flesh is eaten one's children will grow up to be like them.

Neither abortion nor inf anticide is practiced, and miscarriages seem rarely to o€cur under aboriginal conditions. During my residence in Casarabe, how ever, where the Indians were living under rather brutal conditions of forced labor, three instances of miscarriage came to my attention. These were caused, according to my native informants, by the fact that the pregnant women were compelled to work beyond their endurance. Under aboriginal conditions, however, miscarriages are generally attributed to the breaking of food taboos, such as the eating of turtle or tortoise eggs. In the case of a miscarriage, the infant and all remains of the birth are thrown away into the bush without ceremony, but the mother and father must undergo a three-day period of mourning, in which they are scarified in the legs and feathers are put in their hair.

To prevent the occurrence of miscarriage a woman must be careful not to eat the flesh of an *animal* to which some parallel experience has happened. One day Ndekai, one of my male informants, had several tortoises hanging by lianas from a beam in the house. Early in the morning of the following day it was found that one ot these tortoises had "dropped" her eggs on the floor during the mght, and that they were broken.

The tortoise was cooked and eaten immediately, but Ndekai s wife would have no part of the flesh. She told me that if she partook of any of this tortoise she would have a miscarriage-that she would "drop" her child in the same manner as the tortoise had "dropped" its eggs.

The Siriono also recognize that under extreme con ditions of fright miscarriages are more likely to occur. One interesting instance of this kind, although it was not observed by me, came to my attention while I was living in Tibaera. Sometime in 1938 one of the amphibian planes of Lloyd Aereo Boliviano, the Bo livian national airline, got lost in a storm between Cochabamba and Trinidad and for lack of gas was forced to land on an uncharted lake in the Siriono country. It so happened that Eresa-eanta (Strong eyes), *his* 5 wives, and their children were camped on this lake at the time, hunting, fishing, and tending a small garden plot which he cultivated there. It was probably the first time that an unacculturated Siriono had ever seen an airplane; in any event, Eresaeanta and his family were unacquainted with such a

_phenomenon. _ ””-

As 'Eresa-earita -described the event to me, he-was returning from the hunt lat one afternoon to his house, which was situatednear the shors of the lak-e, when he heard a buzzing sound some -.distan.ceaway.

As it became louaer he ,got frightened d hued on t:o -the house. When he arrived there, he sw a huge

ngidadfsa (harpy eagle, his term fortheplne) swooping down on the lake. When it had •settled, peo ple got out of its "'stomach," Fie and his family were immeately seized with terrific fright and .took.to the bush, qaeying with them notliiµg bt1t their hammocks and fire. Upon. arriving at a_ water liol• som:•distanee away, they wer.e overcome .by drkness - an;_d ere _ forced to camp for the night. Sometime during tb:e

•night,_ one of his wives, who . *w*as pregnant-Kit wa$ her name, and she yenned the "stocy–had a misear ri,_ag , ””becat;tse she _had gra fear.;; The remain-s of thi abnorinal birth wer ijltown: way info the bush. On the following clay Eresaeapta' wivess p,roceeded to :another eamp, while he ca_µtiously•-approache8 thtr lake again ta pick up soine_,-of th supp es left the!• i | |

Upon arriving, he found that *i•ngiilad Ua"* was st{ll there;and hewatched

-t for some :time-

•while lµdl'Jen in the brush near the• shore. B-efore noon of the•same, day the "fath•er" of the *"ngtdadfsa,"* i.e., a larger-plane, Hew over the st but left hnlldiately. Eresa-eanJa remained concealM in the brush. I.ater•in the after noon a "brother" of the first *"ngiil:tidt$a,"* i.e., a plane like it, circled .overhead and la:ritled pear it. "fhis trlso had people in its "belly." After the peop1 eoni.rers d. for some time, both of the planes w.ent off tageflir, and "he never saw "iliem again. He said that he "'Fe;.. turned to his_ family the .same afternoon, but that he_ did not come back to the lake for a long time after ward. More than three years later I had the good for tune to spend considerable time with one of the wor ried passengers of that plane, Senor Medardo Solares A., who substantially confirmed the events as re ounted to me by Erea-eanta.

Childbirth

Childbirtlissnorm.ally ta:kes place in the hut and is atpubflc event. Births are well attended by Wo!flen and children but rarely by the men, who display little interest in such *m*atters. If a birth takes place dng the day, even the prospective father will not be present because as soon as a woman begins•to feel birth pangs shY. notifies her husband an.d he departs for, the hunt to seek a name:for the child.6

The coming of laoor pains necessitates certain.prep arations for the birth. These are usually made by the woman hefself . Since parturition takes plac in the hammock, she ties a rope (*eeo.-seko-sak-wa,*"child birth rope") above it, so as to have something se cure to grasp during labor. She also loosens th hard ground under _ th.e hammock with a diggµig stick so that the child will have a soft bed on which to be born. Sometimes. sh•e also SJ?reads ashes over the. soft earth further to cushion the newborn infant. Having finished these p;reparations, the woman lies down in the hammqck whei:e s4e awaits the birth with grunts and groans to which her tribesmen pay little attention.

. Of the eight bis which I had the good fortune to witness among the Siriano, four took place during the day and four at night. In the former cases the mothers received no lielp whatever, either during the

.6 See seqtion on *Namit1Jg.* preparations for the births or during the births them selves. In the other four cases the husbands assisted to the extent of setting fire to a few dried leaves of motacu palm in order to light up the *i*mmediate en virons of the hammock, but beyond this they gave no help. At all of the births a crowd of women was pres ent, standing by or sitting in adJ*o*i_niog hammocks, gos siping about what it was like-when they had their last child or speculating as to whether the prospective child would be a boy or a girl. Not a move was made by these onlookers to assist the•parturient women, ex cept in one case when twins were-born.

In all of the births which I witnessed, except that of the twins, the mothers had no •*d*ifficulties in de livery. The time of labor varied from one to three hours, but never extended beyond that limit. In all instances the babies were born he.adfirst.

To exert force during labor a woman grasps the rope strung above her hammock. The infant, in being born, slides off the outside strings of the hammock onto the soft earth below. Since hammocks are not hung more than a few inches above the floor, the shock to the infant of falling to the ground is not great, yet it is probably sufficient to start it breathing and induce it to show other signs of life. In no case did I see an infant slapped to give it .life. All of them started breathing immediately after the shock of birth. Immediately following the bilth the mother gets out of her hammock an:d kneels on the floor to one side of the inf nt until the afterbirth is.expelled. In all of the cases which I witnessed the afterbirth was expelled in a matter of ten minutes, but if a woman experiences any difficulty in this matter she is pounded on the back until it does come out.

The proceedings which follow depend to some extent upon whether the birth takes place at night, when the father is present, or during the day, when he is off on the hunt. If the father is present the umbilical cord is cut at once; if not, the mother must await arrival; the cord is cut by the fathe*r* with a *b*amboo knif e. After taking a bath he squats on the floor by the infant.The mother then hands him a piece of bamboo, and while she holds the cord away from the placenta, he cuts it about four inches from the placental end.

Following this the mother holds up the cord and the father CQ.ts off a section about six inches in length, which is tied to the under side of the hammock to prevent the infant from crying. The remainder of the cord, about eight inches, is left attached to the inf ant and is not tied. Following all of these proceedings, during which not a word is said, the father returns to his hammock to commence the observance of the couvade. *H* he has not been present at the birth, the same customs are followed after he returns from the hunt.

Immediately after the afterbirth has been expelled, the mother picks up the newborn infant and begins to scrape the dirt and ashes from its skin and hair with her hands. While thus cleaning the baby she also slightly presses its head from front to back, and its hips inward, so as to make it *etura* (beautiful). For a couple of days immediately following childbirth, about every hall hour or so, the mother can be. ob served pressing the infant's head and hips in. this fashion to make it beautiful. Having cleaned the baby, she gives it a perfunctory bath, from a calabash, after which it is offered suck-usually less than hall an hour after birth.

After the baby has been bathed and suckled, the mother begins to clean up the afterbirth, which lies under the hammock. No one but sh_e has anr contact with this bloody *m*ess. Sfie sits on lie *g*round with t'ffe t5a!5y ili *h*er arms and with one hand scrapes up all evidence of the birth into a 'pile. This is shoved temporarily into a hole in the ground or placed in a basket, and about two weeks later is taken deep into the bush and thrown away. A mother sits on the ground, tending her baby, for about eight hours fol lowing the birth before she again enters her hammock. For about three days following hildbirth the Siri ono family undergoes a seris ()f observances and rites which we may loosely term the couvade These rites are designed to protect the life of the inf ant and to ensure its good health. Not only is the infant believ d to be extremely delicate during the period immedi ately followmg brrffi, and thus readily subject to disease and death, but tt ts diought still intimately to lie connected with the parents 1ind profoundly to "be aliected hy their activities. Consequently the latter are restricted *in* various ways Except for satisf*y*ingr ffie calls na*f*ufeffiey tto not move outside the house. They stay

close to their hammocks, and are subject to a number of food taboos. Neither jaguar nor coati is eaten lest the inf ant break out with sores all over its body; paca cannot be eaten or fu.e infant may lose its hair; papaya cannot be eaten lest the infant be come a victim of diarrhea. Parents .do not suffer much during this period, however, as there is a long list of foods which they can eat: guan, agouti, monkey, tapir, deer, peccary, tortoise, fish, manioc, maize, etc. Some informants told me that maize was taboo during the couvade period-to prevent the infant from having pains in the stomach-but since never saw this taboo observed it is probably not a functioning one.

More important than the abstinence from certain foods is the carrying out of _ certain other practices that must follow the birth of every baby. Qn the day after the birth both arents are scarified on the upper an ower le s with the e etoo o a rat or a sqwrre . Usua y e father is scratc t. o particu re a tive or person is responsible for *p*erforming this opera tion, though in the case of the mother it is usually done by the husband. Before the husband is scarified he puts on a necklace or two of coati teeth and winds the new baby sling, which has been covered with uruku (*Bixa orellana),* around his neck.He stands by his hammock during the operation. The person doing the scarifying squats down and makes long scratches on the outside of the upper legs from the hips to the knees and on the back and outside of the lower legs from the knees to the ankles. As these scratches are relatively superficial not a great deal of blood *Hows.* Immediate*y* after the operation is *f*lnJshed the legs are washed and covered with uruku.

After the husband has been scarified, he removes the baby sling and the necklaces; the mother puts these on and then undergoes the same operation, usu ally at the hands of her husband. While the mother is being operated upon, the baby is left lying in the hammock or is held by a co-wife or sister. Ac*c*ordin*g* to the Siriono this ractice of scratchin e s *as* the pu . ose of • 0 O d blood which might ca se - e child to be sick. It mi ...t,.....-....._._;;.;.; as a pu *ca on n e . •*

Except during the scarification rite the parents stay close to their hammocks on the day following the birth, the father resting and the mother attending the infant. They do little cooking themselves but are fed by other members of the extended *f*amily. There is, however, no taboo on their doing some cooking, and occasionally one sees a mother or father roasting an ear of com or a root of manioc in the fire at this time. The most significant *t*hing that ha ens to the infant on is *t*hat 1t gets its fir arrcut in e tra on , e o e an . consists in depilating it in a s8*M*crrcle higli on the forehead. Since this o eratlon JS a very pinoful one, the mother u a y pu out a few *h*airs at a e an tlien lets the infant calm down tor a hall *h*our or so before continuing the operation. Actually it is a very frustrating experience for the ,young 'baby, who strug gles its utmost to avoid the pain. Nevertheless, by the end of the second day the infant is without eyebrows, and the hair on the front part of it head has been pulled out. The depilated hair is saved, wrapped in cot ton string, and covered with beeswax. It is then made into a necklace, which the mother ties around her neck to promote the growth of theinfant'shair.

The second day after the birth of the child is spent in omamentin the parents *w*ith feathers. Both ate ecorate in exac y e same way. A co-wife or po tential wife usually perf orms the task. Again the man is usually decorated first. After the hair is trimmed, red and yellow feathers of the toucan are glued into the hair at the front of the head, tufts of curassow down covered with uruku are glued into the hair over the ears, and tufts of breast down of the harpy eagle (also covered with uruku) are glued into the hair at the back of the head. In addition to these feather orna ments in the hair, both parents are decorated with new cotton string covered with uruku. This is wound around the legs just below the knees, around the arms above the elbows, and around the neck. The face, arms, and legs are then smeared with uruku and the decoration is complete.

These decorations are sometimes applied to other members of the family, especially to a co-wife or, in the case of a multiple birth, to either the co-wife or sis ter of the mother who is designated to take *immediate* care of one of the babies. In such instances the co wives are decorated in the same fashion as the par ents. In two of the cases which I observed, boys of about the age of puberty and standing in the *yande* or potential spouse relationship to the mother also underwnt th_e same ceremonies as the father, doubt less because.they too had been having intercourse with th.e mother before and during pregnancy. The rela tionship between the parents and the child is thus generalized to co-parents as well. Children

and other members of the family, however, are not decorated, although a feather or two may be added to their hair while the parents are being adorned.

The parents undergo no further rites on the second day after birth, but there still remain the ceremonies that terminate the couvade. These usually take place on the third day after birth, although they are some times postponed until the fourth, but they do not de pend on any particular circumstance such as the drop ping off of the navel cord. In these terminal rites uruku is again smeared on the members of the family undergoing the couvade. Necklaces made from the base of the quill feathers of a species of hawk are placed around the necks of the fathe, and mother. The mother by this time is also wearing a necklace of cotton string with the hair plucked from the infanfs head. A few miniature baskets with a very open weave are hastily woven by the mother from a leaf of motacu palm and filled with the ashes of a dying fire. She then takes up the baby and places it for the first time in the new sling, which is dyed bright red with uruku. The father picks up his bow and a couple of arrows, and the family starts *oH* on a trail into the forest. As a rule, but not always, the father marches ahead, carrying his bow and arrows to protect the infant from danger. The mother follows behind, with the baby in the sling, carrying in one hand a basket of ashes which she slowly scatters along the trail to purify it and in the other a calabash of water. If there are any other children in the family, or co-wives or *yande,* they may also join the party and scatter ashes along the trail. Usually not a word is said as the party proceeds to its destination. After walking for about five *m*inutes the entire group halts. The mother sits down, and her husband brings her a palm leaf from which she begins to construct a carrying basket. The father in the meantime goes in quest of firewQod. After firewood has been collected and placed in the basket, the party starts home without ceremony. When they arrive about one hundred yards from the hut, the baskets which contained the ashes are hung onto bushes a few feet from the trail. Upon entering the hut the parents kindle a new file with the wood carried back from the forest. The inf ant is then given a bath from the calabash of water which the mother took into and brought back from the forest. The pe riod of couvade is now considered to be .officially over, and the normal activities of life can be resumed.

Multiple Births as unnatural.

Twins are e •eved to *cau*sed _ e a er or e mo er having eaten a double ear of com.. In fact, ny plant which zrnws dw1ble, iucb as rnaize:manioc, or camote, is carefull avoided b adults lest multi le s resu t. Such plants are always fed to c •dren.

Aithough twins occur occasionally, informants knew of no cases in which more than two children were born at one time.

When twins are born, both are allowed to live. One

. of them frequently dies, however. because the mother

•of a pair of twins for a short time =is; | | is unable ro erl to attend both. Althou co-wives or sisters having no young children usually sue e one except ID the case of aq>bans, a i hL luc tance to take care of auyone e|se's cbi)d for an1r pro-

*l onge*d period. .

A Case of Twins

The following are observations on the birth of a pair of twins at Tibaera on the night of January 7, 1942. Up until the time of the birth, o.f course, no one had. expected a pair of twins-the parturient mother, Eakwantui (Tapir), least of all. Before the birth she had assured me time and again that she would have but one child.

In the €ase of this pair of twins, the first signs of birth appeared almost a month and a hall before the children were actually born. About 6 A.M. on De cem_ber 1, 1941, the woman began to feel labor pains and informed her husband. He, following the Siriono custom, picked up his bow and arrows and went out to hunt.7 The usual preparations were made for the birth, such as loosening the earth underneath the hammock and hanging up the childbirth rope. After an hour or so, however, labor pains subsided, and the woman went about her usual duties in the house. At noon she smeared some uruku on her face to facilitate the birth, but by the time her husband had returned

7 The reason for this is to secure a name for the child. See section on *Naming.*

from the hunt nothing further bad happened . He bad secured four toucans and two squirrels. These were eaten by him and the families of his in-laws, but his wif e did not eat any of these animals, as they were taboo to her.

After the first labor pains, life proceeded normally, the prospective father and mother, however, remain ing close to the house.On December 4, at about *z* P.M., Eakwant6.i again began to feel labor pains. Again her husband picked up his bow and arrows, and prepara tions were made for the birth. On this day labor pains were considerably stronger than before. Eakwantui lay in her hammock in great pain, muttering *"sedidi erasi"* ("I am child sick").As her cries got louder, most of the women of the band gathered and sat down in neighboring hammocks. Children were also present, boys and girls as well as babes in arms. No men were intentionally present, although some lay nearby in their hammocks, paying no attention to the proceed ings. After about ten minutes of waiting for the birth to take place, someone at the other end of the house announced the arrival of a party with manioc brought in from an old garden some distance away. The suf fering woman was immediately abandoned; everyone made a rush to see whether he could get some manioc. In a short while the labor pains ceased, and at about 6 P.M. Eakwantuts husband returned from the hunt with a quirrel,which was eaten by his sister.

Nothing further happened, except that the prospec tive parents had occasional intercourse to hasten the delivery of the child, until December 17, when Eakwantui again began to feel labor pains about 7:30 in the morning. Her husband stretched the child birth rope over the hammock before going out to hunt. Tami (Armadillo), the husband's sister, swept the floor under the hammock and loosened the earth with a digging stick. An old woman, not an immediate rela tive, performed a solo dance at the head of

Eakwantufs hammock to facilitate the birth. Again present were most of the women and children of the band. After about a hour the birth pangs subsided for the third time. At nightfall Eakwantui's husband re turned with a small tortoise, which was eaten by his brother-in-law.

Between December 17 and January 17 there was no further progress toward labor, but there was con siderable talk on the part of the other women, who expected that Eakwantm would die. On the whole, however, they paid little attention to her, although her sisterin-law, Eicazi (Mother-of-Clubfoot), said to me, *"k6se mcse mbw ma,no akendasi'* ("People have died in childbirth before"). During this period both Eakwantui and her husband stayed close to camp. He did not go hunting for more than a day at a time, and the only times she left camp were to have inter course to stimulate the birth of the infant.

Finally, on January 17 at about three oclock in the afternoon, Eakwantui again began to have labor pains. Because of the previous false alarms almost no at tention was paid to her at first. Her husband went hunting as usual, although he explained that it was too late in the afternoon to get game. About 5 P.M. the labor pains began to grow stronger, and Eakwantui's sister-in-law began to rub her stomach a little. She herself was pulling and rubbing her breasts during the pains. This time her husband's sister's hus band tied a piece of pole over the *h*ammock with lianas, and she grasped on to this for support while trying to give birth. Receiving very little attention, she continued in pain until about 5:30 P.M., when her husband reb.lrned from the hunt with a small turtle. This was immediately prepared and eaten by one of his sisters-in-law. A girl child was finally born about *7* P.M., dropping through the strings of the hammock, and, about three *m*inutes afterward, a boy. As soon as the girl was born, the father got out of his hammock and assisted Eakwantui by supporting her under the arms. When the boy was born, there was terrific con fusion among the women, who crowded so close to the mother that she could hardly breathe, but none made an effort to help her. After the second birth the mother got out of the hammock to expel the after birth. Both children were lying in the dirt underneath the hammock, showing few signs of life. The mother appointed Araia, a co-wife, to take care of one of the children. When Araia picked up the boy, all the women cried, *"Dezi eraNkwi"* ("penis for the mother," i.e., the boy for the mother), so she put the boy down again and took up the girl. The mother, who had ex pelled the placentas in the meantime, called for a basket. From it she took a small blade of bamboo and handed it to her husband. He first severed the cord of the girl about two inches from the placenta and then cut off a piece about four inches long, which Araia, the second wife, put on her leg before tying it under her hammock. The cord of the boy was then cut in the same manner. It was now about 8 P.M., and almost everyone who had been observing the birth retired to hishammock to sleep.

Af ter the rest had left, the mother and Araia re mained seated on the ground with the two children. The mother began to scrape up the bloody earth from underneath the hammock with her hands, pushing it into a small hole which her sister-in-law Tabn (.Armadillo) had made for that purpose near the head of the hammock. When all of the bloodstained earth had been placed in the hole, the mother carefully put the two placentas on to_p. Then both of the women began to shape the children, .first straightening their legs, then pushing their hips inward, and finally press ing their heads slightly from front to back-"to make them beautiful," as Araia told me. Both infants were then given a hasty bath from a calabash of water, af ter which the two women, sitting on the ground,. gave the babies suck. When I retired, at about *z* A.M., both women were still attending the infants and sitting in the same position they had assumed after the birth.

On the following morning, January 18, I returned to the hut about 6 A.M. The mother was then holding both of the infants, but when I came into the hut, she passed the female to Araia. The mother had not yet taken a bath; the blood from the birth was smeared all over her legs. Her husband was lying in the ham mock eating maize. The women spent some more time in shaping the limbs and pressing the hips and heads of the infants, and then gave them a bath. Eakwantui and Araia next began to eat roasted maize prepared for them by the eight-year-old daughter of the former. After eating the maize, the two women were brought some fruits of the aguaf and motacu. They continued to roast and eat until about *z* P.M., when they entered their hammocks for the first time since the birth the night before.

At eight o'clock that evening both women were still fast asleep in their hammocks with the infants upon their breasts. The father had lain in his hammock all day.

About 8 A.M. on January 19 the father took a bath in the river. When he return Eakwantw placed two baby slings-newly made and covered with uruku around his neck, as well as two necklaces of coati teeth. He was then scarified on the legs by Isi, his father's brother. Meanwhile, the two inf ants were given their first haircut by the mother. During this operation they howled continually. After being scari fied, the father's legs were washed and smeared with uruku. He then returned to his hammock and began to eat maize. I asked him what he could eat and what he could not eat at this time, and he gave me the following list of foods, which he said applied to the women as well:

Foods not taboo T*aboo fo ods* peccary tapir duck turtle cormorant spider monkey capuchin monkey detr macaw fish curassow squirrel agouti crocodile all vegetable foods all fruits except papaya coati anteater harpy eagle howler monkey guan toucan pca parrot tiger porcupine papaya

When the mother :finished giving the infants a hair cgt1 he \lepllat_ed hair was wrap£ed into two separate cotton balls and bun around e necks of the two *w*omen. e mo er now gave the oy i ant to er nusband to hold while she went out to defecate.When she returned, he removed the baby slings and the coati necklaces and put them around her neck. He was then given a haircut by his sjster, the hair clippings being thrown in the hole with the afterbirth. Feather ornaments were then put in his hair in the traditional fashion by his sister. After he had been decorated, he scarified the legs of the mother and of Araia, who was taking care of the female infant. Both of the women had previously bathed. They were then given a haircut, and feather ornaments were glued into their hair. Cotton string covered with uruku was also wound around their arms, legs, and necks. By the time these decorations were complete, the day had al most ended:, and after an evening meal of maize all retired to their hammocks.

Early the next morning, January 20, the members of the family smeared uruku on their faces, arms, and legs. The father took off his old wrist guard and put on a new one. Both of the women and the father hung necklaces made of the base of the quill feathers of the hawk around their - necks. The women were also wearing necklaces containing the depilated hair of theinfants. Several small, loosely woven baskets were made by the mother, and these were filled with ash,es.

At 8 A.M.the party left for the bush on a trail lead ing out from the east side of the house. The father of the twins and his two wives were accompanied by one of his nephews, who led the party with a basket of ashes which he strewed alo_ng the trail. The two women followed behind and also scattered ashes. The mother likewise carried a calabash of water, but she did not sprinkle this along the way. The father brought up the rear of the party, carrying nothing but his bow and two arrow"8. Not a word was said asthe party proceeded along the way.

After :walking about ten minutes, when there were no more ashes left in the baskets, the party m-ade a halt. The mother sat down and placed the two chil dren in her lap. The father left, shortly returning with a green leaf of the motacu palm from which the mother then began to weave a carrying basket. The father and his nephew went off in quest of firewood, soon returning. The firewood was put in the basket, which was placed on the father's back, and the party set out for the house. Just before arriving, however, a small stick was stuck into the •ground, and the empty baskets, which had contained the ashes, were hung on it. The party then .returned to the hut. Here a new fire was kindled, and the mother gave the twins a bath from the calabash of water which she had been carrying. The father shortly left the house again and brought back a ripe leaf of the motacu palm, from which the mother wove a basket. When this was completed, she placed in it all the remains from the birth which had been lying in the hole in the ground at the head of the hammock, leaving the basket stand ing under the hammock. She then went about her regular household duties, and the father went out on the hunt. The period of couvade was officially over.

The feather ornaments which are glued into the h ' a er e. 0 a C are - r• a out a

Il!On ..,.,1Jeox_ai:,d. In t 0 case of the above-men *tionea* twins, the feathers were not cut out of the par ents' hair until February *24*. The afterbirth, moreover, was left standing in the basket underneath the ham mock for sixteen days before it was taken by the. mother deep into the bush and thrown away.

Paternity

Only in one *birth* which I observed was ere any ql\esnon of tlie pate111ity htvolv ed 01 a 1elttctance on the part of a woman s husband to accept her child as

:\)*i*s. Of course, considering the sexual freedom allowed bytheSiriono; the true paternity of a child would be difficult to determine, but, as far as the group is con cerned, it is only the social role of the *f ather* that is

*!*mportant. In the case refette*d* to, one of *t*he wives of E6ko (Tall-one) came into labor early one morning. E6ko_ left for the hunt before the infant was born, but knew tht his wife was in labor. She gave birth to a girl about - 8 A.M. I was present at the birth and spent the dzy observing postnatal events and, like tlie mother, waiting for E6ko to return and cut the eord. We waited patiently until about 5 P.M., but_ E6ko had not yet. returned. As a somewhat partial obseryer at this stage, _I became concerned that theinfant might di&from an infection of the cord and placenta, which had been exposed to the flies the entire day, but upon making the•suggestion that the cord should be cut, I was told by the mother and other informants -•that it was necessary to await the arrival of E6ko. Finally he returned, in company with other hunters, just as the sun was_ going down. He had shot a few *keN* {Ca puchin monkeys) which he threw down by the ham mock of his first wife, paying no attention, however, to the mother and the newborn infant. In fact, he .cast not so niucn as a glance in their direction. • Meanwhile, the mother took out a piece of bamboo aild sat patiently on the ground waiting for E6ko to cut the cord. IBstead of so doing, he lay down in His hammock and ordered his first wife to extract .the thorns from his hands and feet. This operation took approximately half an hour, by which time it was fairly obvious to all present that E6ko had no intention of cutting the cord. Women began to gather. Seaci who was•E6ko,s niece, came up to me and said softly: "You speak to E6ko; tell him to cut the cord.n I r.eplied: "No, you speak to him." She was afraid to do so. Then one of E6ko's relatives remarked that E6ko *claimed* the child was not his, that he had "divorced" this woman some time before. Following this declara tion, one of the mother's female relatives came for ward and publicly demanded that E6ko cut the cord. He paid no attention whatsoever to her but continued to lie in his hammock and smoke his pipe. The mother of the infant took no part in the proceedings but continued to sit quietly on the ground with the child. Darkness set in. The mother's female relatives con tinued to put pressure on E6ko to cut the cord. Finally, after abo1.J.t an hour, he got up from his hammock, called for a calabash of water, and took a hasty bath. He then stooped down, took the bamboo knife from the mother, and severed the cord, thereby recogniz ing the child as his. Before doing so, however, he emphatically stated that the child was not his and that he was only cutting the cord to prevent the death of the child.

E6ko's reluctance to accept the infant as his was clearly reHected in his behavior during the period of couvade. He acted as if he did not care whether the infant lived or died. He paid no attention whatsoever to the mother, and, although he was decorated with feathers like every father of a newborn child, he un derwent fe:w of the other observanees designed to pro tect and ensure the life and health of the infant. He was not scarified in the legs, for instance, nor did he observe the rules of staying close' to the house. He paid no attention to the food taboos and took no part in the rites terminating the couvade. He repeatedly told me that he had "divorced" this woman -and that be would have nothing more to do with her. This was born out by subsequent events.

Naming

The Indians' kinship with the animal world is clearly reflected in the system of naming. At birth almost eve one receives an animal *n*ame. The most *co*m-• mon me or securmg sue a name is for the father to go in quest of an animal as soon as the prospective mother begins to feel the pangs of childbirth. He usu ally goes in search of a particular animal-a valiant one like, a tapir, a jaguar, or a peccary-but if such an animal is not to be found, the child is named for the first animal that the father kills. It so happens that in the cases of childbirth which I witnessed the father never came home empty-handed from such a hunt. A specific case will best explain the method of nam ing. A certain woman at Tibaera called Eantasi (Mother-of-Strong-one) felt birth pangs in the early morning of August 28, 1941. Her husband, Eantandu (Father-of-Strong-one), upon being informed that the infant was soon expected,

picked up his bow and arrows and left immediately for the hunt. Before leav ing, however, he told me that he was going to look for a *yakwa* (jaguar) af ter which to name the baby. The infant was born about 10 A.M. while the father was still out on the hunt. He returned about 5 P.M., carrying a young jaguar on his back. After he had cut the cord, I asked him what the name of the child would be,, and he replied, "Yakwa," which was the first animal that he had hunted that day.

The above-mentioned method of naming is prac ticed when the birth takes place during the day. If a child is -born at ni.ght, when it is impossible for the father to go hunting, other methods are followed. In such cases, the infant may be named after some un usual characteristic that it possesses, such as a clubfoot, or after an animal some characteristic of which it shows a remarkable resemblance to In the case of the twins whose birth was described above and which took place at night, the female was called Eata (Many) because more than one child was born; the boy, Eica (Twisted) because one of his feet was mark edly turned inward. In another instance which Iob served, an infant was born about three o'clock in the morning. Upon arriving belatedly on the scene, I asked the father what the name of the child would be, and he replied, "Yildna" (Owl-monkey) . When I ques tioned him as to why this namewas g_iven to the in fant, he replied that while the birth was taking place a troop of night monkeys passed by the house and were heard chattering.

Although there are no formal ceremonies of nam ing, an infant is usually given a n-ame by one of the above-mentioned methods. \ i\t Casarabe, however, where the Indians were living underconditions of forced labor and acculturation, the custom of seek ing a name for the infant before it was actually born was supplanted by one in which it was named after the period of couvade was over.)-

Besides the name that one receives at birth and the various names that one acquites by virtue of hav ing home children, i.e., through tel<nonyrny, the Siri ono are extremely fond of bestowing _nicknames on people. These are applied to individuals because of some striking physical characteristic .that they possess or because of some outstanding event that happened to them. A man who falls from a tree, for example, may be known henceforth as "Falling-from-a-Tree." Nicknames change frequently.-someof the common ones coined at Tibaera were the following: Eruba erasi (Sick-face), IkaNge (Bones), Kon6mbi-acikwa

(Tortois.e-rump), Eresaia (Blind), Mbe-erasi (Snake sick), Eidua-ekwasu (Big-navel), Anti (Close-at hand), Et6mi (Lazy), EreN-ekf da (Fat-vulva), and Mbfku (literally «opossum," but applied to a man who steals other men's women) . While I was at Tibaera, the custom of nicknaming also extended to me. One of my nicknames which persisted for some time w,as Kifkwandusu (Big-deer), because I was, lmown to be skillful at shooting deer on the pampa. I was also vari ously called Eresa-erasi (Sick-eyes), Eab6ko (Long hair), and Embuta (Beard). By those Siriono who hav.e had .ct>ntact with the outside a strange.r is invari ably called *taita,* the old Quechua term for fathex:,. old man, or *patr6n.*

No sex distinctions are made in the naming of chil dren, and such things as status diHerences in names, individual names, and taboo names do not exist. Within the band various people may have the same name. At Tibaera, for instance, there were several people by the name of Seaci (Coati), Embuta (Beard), and Eica (Clubfoot).

Infancy

When the period of couvade is over, the infant, who is then regarded as a definite member of the nuclear and extended family, stays almost constantly with his mother until he is about a year old. Most of the duties pertaining to his care fall to her.)Yheμeyer the mother is jn tbe house. the infant lie§ ac ss fier lap; •

"Whenever .she leaves the house, he is placed in the baby sfing and carried astride her hi He is freely offl3t ed dle breast Wlienever he is aw*ake,* and if he

cries, his mother tries her best to pacify him by tllis method. She grooms him frequently, watching for

the appearance of wood ticks, lice, and skin worms;

she carefully protects him from the bites of mosquitoes and other harassing insects which cause him no end of discomfort and distress.

During this early period, infants are carefully watched that they do not play with their feces. The S!fiono appear to have made the connection between contact with feces *a*nd such ailments as hookworm *a*nd dysentery. Consequently, whenever the infant defecates, *th*e excreta are immediately cleaned up by the mother (she generally uses a hard shell of motacu fruit for this purpose), wrapped in a leaf, and stored in a special depository basket, When. this basket becomes full, the mother carries it some distance into the forest and empties the contents where the child can have no contact with them.

In spite of the care with which mothers watch their young babies, I £requently observed infants playing with their feces. On one occasion Acfba-e6ko and his family were busily engaged consuming a batch of manioc. His first wife's baby, a boy about s months of age, was lying on the ground near the hammock. The baby defecated while the mother was eating, and she did not see him. After lying in the excreta for several minutes, he began to smear them OV,er him self and shortly thereafter he put some of them into his mouth. At this moment the mother observed what he was doing. She grabbed the infant by the arm, put her finger into his mouth, and cleaned out the excreta, saying at the same time, *abacikwaia £kwa nde""*> (""You are an evil spirit""). Although the baby was badly soiled, he was not bathed, but was wiped with a large leaf . The mother continued to eat -without washing her hands."

An infant receives no punishment if he urinates or defecates on his parents. Almost no effort is made by the mother to ttain an infant in the habits of cleanli ness until he can walk, and then they are instilled very gradually. Of course, if a mother hears her infant fart or feels that he is about to defecate on her, she holds him away from her body so as not to be soiled, but about the only punishment that an infant is sub jected to by defecating on her is that of being set aside for a while until she cleans up the mess. Children who are able to walk, however, soon learn by imita tion, and with the assistance of their parents, not to defecate near the hammock. When they are old enough to indicate their needs, the mother gradually leads them further and further away from the ham mock to urinate and defecate, so that by the time they have reached the age of three they have learned not to pollute the house. Until the age of four or five, however, children are still wiped by the mother, who also cleans up the excreta and throws them away. Not until a child has reached the age of six does he take care of his defecation needs alone.

Little training is given a child in the matter of urina tion. Contact with urine is not regarded as harmful, and I frequently observed mothers who did not even move when babies on their laps urinated. Since no clothes are worn by either the mother or the child, the urine soon dries or can readily be washed off. Grown children frequently urinate in the house with out censure, and even adults seldom go more than ten feet from the house to urinate.

Inf ants are usually bathed at least once a day. *H* the band is on the march, infants often receive shower baths from the frequent rains that fall. If the band is settled, the mother usually repairs to the water hole or stream in the late afternoon to bathe both herseH and the baby. If not, she usually bathes the baby in the house from a calabash of water. In wasliing the infant's hands, which she may do more frequently, the mother fills her-mouth with water and squirts it on the baby's hands, rubbing them briskly at the same time. Until a baby is about six months of age, he gets no other nourishment than mother's milk. Soon after, however, he may be given a bone to suck on, and his mother begins to supplement his diet with a certain amount of premasticated food. As the infant grows older, he is given more and more premasticated food, so that by the time he isone year of age, about 25 per cent of his diet consists of foods other than mother's milk. During this time, however, he is never denied the breast if he wants it. In fact, children are rarely, if ever, fully weaned until they are at least three years of age, and occasionally one sees a qhild of four or five sucking from his mother's breast.

Weaning, like toilet training, is a very gradual proc ess. The rapidity with which it occurs depends largely on how soon another child is expected in the family. If the mother soon becomes pregnant, the inf ant is discouraged from sucking; if no child is expected, the process may be lengthened considerably. In weaning, the mother usually applies beeswax to her breasts, so that the child receives no reward for

his sucking. This method is also employed when the mother is ill and does not want her child to suck. Foul-tasting sub stances, such as excrement, are never smeared on the breasts to discourage a child from nursing.

Because of the *J*imited time which I spent with the Siriono, I am unable to supply accurate information concerning the age at which such habit patterns as creeping, standing, walking, and talking first appear in children. In all of these respects, however, Siriono in fants seem to fall within the normal human range.

Parents do little to hasten the maturation process. *As* habits begin to form, of course, an infant is encour aged to develop them for himseli, but if it represents any strain for him to creep, to stand, or to walk, little attempt is made to force him. If, for instance, an in fant is lying on the floor near his mother's hammock and wishes to come to her, he is encouraged to do so by creeping or, if old enough, by walking, but if he starts to cry, which is recognized as a sign that it is too difficult for him, the mother gets up fr.om her ham mock and picks him up.

One of the most painf ul and frustrating experiences that every inf ant must regularly undergo is that of hang his eyebrows and the hair from his forehead depilated. A newborn baby receives his first hairc,ut e da after birth and is sub'ected to eriodic depila tions about every two wee there er. i ese are not endured without avoidance and pain. Mothers almost always have to hold infants very forcibly while giving them a haircut, and it is only after a child has reached the age of about three years that he resigns himseH to this operation without whimpering. Whenever I heard infants howling terrifically, I could be sl)re they were receiving their semi-monthly grooming.

The Siriano are proud parents. They spend a great deal of time in fondling and playing with their chil dren and are delighted to display them to anyone foreign to their camp. I found that one of the best ways to gain the confidence of the Indians was by taking an interest in their children: in bringing them presents, in playing with them, and in curing them of such ailments as hookworm. Their interest in children was also clearly reflected in their conversations with me, for I was bombarded with questions as to how many children I had, where they were living, etc. In order to avoid some explanation of my bachelorhood, which they would not have understood or which would have seemed ridiculous to them, always told them that Ihad a wife and several children (Ieven supplied the names) waiting for me at home, and that as soon as Ihad obtained the information which my "father' had sent me to gather, Iwas going to return to my family.

Males are definitely preferred. If asked the sex of her infant, a mother proudly hol*ds* up a boy and dem onstrates his penis; if her infant is a girl, she contents herself merely with replying *«ereN"* ("Vulva," i.e., fe male). A pregnant woman, too, always expresses a de sire to give birth to a boy. The preference for males, however, is not much reflected in the amount of love or care given an infant. Parents spend as much pme fondling a girl as a boy. Even clubfooted children and other deformed infants are shown no lack of partiality in this respect.

Babies are tickled a great deal in the neck region and on the genitals. When they are nursing, their mothers often excite them sexually. The pleasure de rived from play and *f*ondling is often noticeably re ciprocal. Nursing infants sometimes fondle their moth ers' breasts and bring them into s-harp erection. Not infrequently one observes a mother play with her young boy's penis until it becomes erect and then rub it over her vulva. Ihave also seen men get partial erections while playing with the genitals of their in fants.

Parents are very proud of a display of sexual desire on the part of their infants. One afternoon, Eantandu was fingering the penis of his young son, who was sleeping. The boy got an erection. Eantandu called my attention to it and proudly said: *"eraN kwi eanta*

tuti; cuki ouki etubenia ekwasu mose" («very hard penis,; when grown, he will have a lot of intercourse").

Childhood

The transition from infancy to childhood in Siriono society is_ a very gradual one. Not only are there no, sharp breaks in the process of growing up, but from . the time one is a child until one assums t4e role qf an adult, life is relatively carefree and undisciplinc.:,d.

In fact,. this pattern of freedom so carries on through out adult life that it can be truly said of the Siriono that they are a highly undisciplined people.

In contrast to.many primitive societies, where a ma ternal or paternal relative often assumes the responsi bility of formally educating the child, the system of education among the Siriono may best be character ized as informal, random , and haphazard. If there is a general theory of education, it can hardly be more than the necessary one of gradually teaching the child to be as independent as possible of his family, so that by the time he has reached the age of matu.rity he will be able to shift for himself. Since the amount of knowledge that a child has to absorb to survive in this culturally backward society is small in comparison with what he would have to learn in many other so cieties, the period of childhood offers more than ample time to instill the patterns of adult behavior without a great deal of formal education.

Until a child can walk or talk, at about the age of three, he is taught ahnost everything he knows by his parents and his older siblings, and during the early phases of the education of the child, of course, it is the mother who plays the predominant role. Not only does she feed and care for the child, but she is largely re sponsible, since the father is away a great deal on the hunt, for teaching him to walk, to talk, and to ob serve the rules of cleanliness. Young children are, therefore, usually "mothers' boys" or "mothers' girls."

In instilling tlie liabits of prescribed b*e*havior in a child, the principles of reward and *p*unis*hment* are clearly recognized. A mother who is teaching her child to walk, for instance; frequently rewards him, after he has reached his destination, with a bit of wild bee honey or some other tidbit. But if he is violating some taboo, such as eating dirt or a forbidden animal, not only are the rewards withdrawn, but the child may be roughly picked up and set aside to cry by himself for a while. A disobedient child may also be warned that if he repeats a forbidden act he will be bitten by a snake or carried off by an evil spirit. An unruly child is never beaten, however. At worst, his mother _gives him a rough pull or throws some small object at him. During all of my residence among the Siriono, I ob served only one extreme outburst of aggression on the part of a moer ijgainst her child. This took place one evening about dusk. Er a nic*k*name meaning "Pointed-one," had just •begun to eat a chunk of broiled peccary meat which she had received from one of her relatives. Her young son, Erami ("Old buck -so called because he looked like an old man•), although he had just eaten, began to complain that he had not had enough to eat; Erakui paid little attention to him at first, but as he continued to eomplain, she made a few sharp remarks and finally said to him: "You have already had enough to eat." He replied: "You lie," and made a gesture of grabbing for the meat that she was eating. Suddenly she lost her temper, picked up a spindle lying nearby, and gave the boy a sharp rap on the shoulders. He began to howl and made a dash.for the other end of the house to avoid more blows. She followed him a short distance, threw the spindle at him, and then returned to her ham mock, where she, too, began to cry. (Mothers almost always cry after they have expressed aggres sion against their children.) The boy continued to wail at the other end of the house for about twenty minutes, after which, since it was getting very dark, he sneaked back and c*H*robed in a hammock with his father.In the morning all had been forgotten.

Children are generally allowed great license in ex pressing aggression against their parents, who are both patient and long-suffering with them. A young child in a temper tantrum may ordinarily beat his father and his mother as hard as he can, and they will just laugh. When children are neglected or teased by their parents, they often pick up a spindle or stick and strike them with considerable force without being punished. I have even heard fathers encouraging their young sons to strike their mothers. Eantandu told me that such expressions of anger in a child were a sign that he would grow up to be a valiant adult.

Food habits are among the first patterns of behavior that every young child must learn. After weaning, taboo foods are simply withheld from a child, but as he grows older and more omnivorous,

he is threatened with disease and abandonment if he partakes of for bidden foods to which he may be exposed while his parents are not around. The list of foods taboo to *h*im, however, is not long. mong the apjrnals be I'Qus n!!Y'fr eat is theharpy eagle. This taboo is easy to obey.. since this bird is rarely bagged; only two were shot; *d*uring *my residence at Tiba r*a. The harpy eagle is. regarded as the king of the birds by the Siriono, and the eating• of its flesh is believed to cause illness...

I

(it is never s*tat*e*d what kind) to anyone but* an old pe,rson. Likewise taboo until one is aged are the anteater, Jest one sire or give birth to clubfooted children, and the howler monkey, because it is an "old" animal with a beard and therefore dangerous to eat when one is young. Children are also forbidden the meat of the owl monkey, lest they spend sleepless nights and be restless, and the coati, lest they break out with sores on their bodies. Embryos and the young offspring of animals also cannot be eaten by children, lest they have miscarriages in adulthood.

There are few instances when the above-mentioned food taboos cause a child to sufier from lack of meat. Sometimes, however, hunters return with *n*othing but a howler monkey or an anteater, and the child is denied a share. On such occasions parents attempt by exchange to secure some edible meat for the child, but in some instances he may be forced to go meat hungry for a day or two.As a last resort, parents some times neglect the food taboos in order to satisfy a hun gry and whimpering child. I have observed a father oHer his crying son anteater meat, for instance, even though it was strictly taboo for the child to eat it. Generally speaking, however, taboo foods are with held from children, who themselves learn what foods not to eat by the time they have reached the age of

SlX,

When a child is able to walk and talk, his relations outside the family begin to broaden. By this time, of course, his education is well under way. Having trav eled extensively through jungle and swamp, he has already become acquainted with the plants and ani mals. He knows which ones are good to eat and which ones must be avoided. He has felt the prick of spines. He has experienced the sting of mosquitoes, of scor pions, and of ants. He has seen where animals live and how they are shot. He has watched them being cleaned, gutted, quartered, cooked, and eaten. He has gone hungry and eaten to excess. He has been sick with malaria, hookworm, and dysentery. He has watched children be born and die. He has seen the aged and sick abandoned. He has observed his parents get drunk, dance, and fight. He has heard of evil spir its, and has been admonished not to venture out of the house at night lest he be carried off by one._!!.! sho althou *h* onl three or four ears of a e he h.,as already experience a major part of his natural_ *e*n.rir*onment and participated deeply into his culture;,*

At about the age of three, although still largely dependent upon his parents, the child begins to stray from *f*amiJy fire-to play with other children, and to learn those habit patterns which gradually increase his self-relian and lessen his dependency on the family. His first contacts with people of his own age are gen erally those with his half brothers, half sisters, and his cousins, who are not only closely related to him genealogically but spatially as well, since the extended family te.nds to cluster together in the house. A child's first play group, in fact, seldom contains members out side his extended family. As he grows older, children of the same sex and age from other extended families join the play group, so that at puberty there is usually not more than one play group for each sex in the en tire band. Since the local group is small, play groups seldom contain over five or six members.

Since the aim to which every Siriono male aspires is to be an excellent hunter, young boys get an early education, through play, in the art of the chase. & fo.!e a boy is three months of age his father has made him a *mima*fure bow and arrows which, althou h he will not e a e to use them for several years, are

*S*XJ!*!b lie of his adul r le as* a hunter. By the time a boy is three years of age he is alrea y pulling on some kind of a bow, and with his companions he spends many pleasant hours shooting his weapons at any non living target that strikes his fancy. As he grows older and more skilliul with his bow, he begins to select

1 | | living targets, such as butterflies and insects and when his marksmanship is perf ected he is encouraged to stalk woodpeckers and other birds that light on branches near the house. Consequently, by the time a boy is eight he has usually bagged some game animal, albeit only a small bird.

Like young boys, girls too, through play, get an early exposure to some of the household tasks which they have to perform when they are adults.As the bow symbolizes the hunting role of the boy, so the spindle symbolizes the spinning role of the girl. Before a girl is three years of age her father has made her a minia ture spindle with which she practices the art of spin ning as she matures.

Strikingly enough, miniature bows and arrows for boys and spindles for girls are the only toys which the Siriano make for their children. There is a con spicuous lack of dolls, animal figures, puzzles, cradles, stilts, balls, string figures, etc., so commonly found in other primitive societies. Occasionally a baby tortoise or the young of some anima] is brought in from the forest for a child to play with, but such pets are usu ally treated so roughly that they die *w*ithin a few days' time. Moreover, such *c*ommon amusements for children as games of tag, hide-and-seek, and racing are unknown in Siriano society. Organized games and contests for children (except wrestling for boys) seem to be entirely lacking.

Besides playing with their bows and arrows, boys amuse themselves in other ways: climbing trees, play ing in the water, fishing, learning to swim, chasing one another around camp, and wrestling. They also spend a great deal of time lying in their *h*am *m*ocks, a custom they seem readily to learn from their parents.

Girls play especially at house: making baskets and pots, spinning cotton thread, and twining bark-fiber string. They also frequently assist their mothers in per forming such simple household tasks as shelling maize, roasting wild fruits, and carrying water. Young girls also spend a great deal of time grooming each other, depilating the hair from their foreheads and picking out and eating the lice from their heads. In general, by the time they have reached the age of eight girls have learned to weave baskets, to twine bark-fiber string, to spin cotton thread, and to perform most of the tasks which the society assigns to the adult female. Within play groups aggression is freely expressed.

When boys are playing with their bows and arrows (boys, arrows always have blunt ends, and their bows shoot with little force), accidents sometimes occur, and occasionally one child shoots another intentionally, even though boys are admonished not to point their weapons at any human target. When such accidents or shootings occur (children are seldom wounded as a result of them), a fight usually breaks out, and the child who has been hit of ten strikes back at the boy who shot him. Adults generally take no part in these fights (they usually laugh at them), but the loser al most always runs crying to his parents for protection. Considerable teasing and torturing-such things as pinching of the genitals, poking fingers in the eyes, and scratching-of young children by older children takes place. A young child most often protects himseH from such attacks with a brand of fire or a digging stick, and if he catches off guard the older child who molested him, he may bum him rather severely or give him a sharp rap on the head. Older girls, too, sometimes tease young children by pretending to suck from their mothers' breasts, and this invariably arouses anger in the latter, who sometimes strike their tormentors with considerable force. Under such circumstances, older children are not allowed to express counteraggression. Sibling rivalry does not seem to be intense. If a quarrel breaks out between siblings, parents almost always take the part of the younger child. There seems, in fact, to be a clear recognition by the Siriono that the younger a child the less responsible he is for his acts. As between sisters and brothers, there seems to be a slight preference in the treatment of boys, though this is scarcely noticeable until puberty. Generally speaking, however, boys receive more food and less discipline than girls.

A*J about the age of ei*ght, a boy begins to accom pany his father on the hunt. This is really the be *ginnin of his serious e*ducation as a hunter. Until this time most of his huntin *has* been confined to the im

*m*edi*ate environs of the h*ut. When a y st starts to accompany his father, he makes only about one ex cursion per week, but as he gradually becomes hard ened to the jungle, his trips away from camp become more frequent and of longer duration. On these expe ditions the boy gradually learns when, where, and how to track and stalk game.His father allows him to take easy shots, so as to reinforce his

interest in hunting. The boy is given light loads of game to carry in from the jung le, and if he kills an animal of any importance, such as a peccary or coati, he is decorated like a mature hunter. During all this time, of course, he is also learning to make bows and arrows and to repair those which have been broken on the hunt. Hence, by the time a boy has reached the age of twelve, he is already a full-Hedged hunter and is able to supply a household of his own with game. At this age girls, too, are ready for the responsibilities of adulthood.

Puberty Rites

There *are no puberty ceremonies f or boys. Girls,* however are re uired to under o certain rites before t!!ey are e •gible or intercourse or marriage.. Sexual intercourse with a girl who has not undergone these rites is strictly taboo and is believed to be followed automatically by a supernatural sanction of sickness and death.

Unfortunately I never had an opportunity to wit ness the puberty ceremonies for girls, but after I had been wandering with the band of Aciba-e6ko in Sep tember and October 1941, I was told upon returning to Tibaera that a number of young girls from the band of Eantandu were then in the forest undergoing these rites. I asked Eantandu to take me to where the cere monies were being held, but he showed a great re luctance to do so, or even to suggest someone who might accompany me. He said that the rites were taboo and, besides, that he did not know where they were being held. I 6.nally persuaded him, however, to sug gest another Indian who agreed to accompany me. We set out in quest of the ceremonial party, but after walking about half a day, we met the participants returning.

From what information I could gather from inf orm ants-members of the party and the girls them selves-it seems that all young girls are subjected to these rites shortly before they are married. Menstrua tion is not a prerequisite for undergoing the ceremonies. Just what the prerequisites are I was never able to determine, beyond the fact that the girls must be of about puberty age. The ceremonies do not take place at any particular times or places. They are held whenever there are a few girls whose parents decide that they are of about the right age to be mar ried.

The ceremonies are held near a water hole or stream about a day's journey from the house. Before *proceed:* il_!g to the site, the girls' heads are completely shavaj with a bamboo knif e. 'l'hey are accompanied into the forest by their parents, and usually by a few old an women w o are *m*em ers o e extended fa il . me hunters may go a ong to supply the party with game. Upon arriving at the water hole or stream, the men construct a raised platform of poles on which the girls are required to sit during the ceremonies, which last for about two or three days. During this time they are subjected to repeated baths to purify them for intercourse and marriage. They are also told what foods they can and cannot eat during the period following the rites and before marriage. Adult mem bers of the party sing and dance a great deal during the ceremonies. After about two or three days of such activity, the party returns to the house.

Following these rites in the forest, the girls are not immediately available for intercourse and marriage. They must wait until their hair has again grown to the length of their chins, which takes about a year. During this time they are subjected to the following food taboos. They cannot eat guan, macaw, monkey, curassow, toucan, anteater, coati, harpy eagle, parrot, paca, armadillo, opossum, porcupine, fox, or eggs of any kind. The reasons for not allowing them to eat these foods were never made clear to me except in. the case of eggs, which are believed to cause mul tiple births, and porcupine and anteater, which are be lieved to cause the birth of clubfooted children. The following foods, however, are not taboo: all vegetable foods, fruits, fish, tortoise, peccary, tapir, deer, agouti, duck, crocodile, cormorant, otter, and squirrel.

In addition to being subject to food taboos, ado lescent girls, after they have undergone the ceremo nies that take place in the forest but before they are eligible for marriage, must do considerable work for the first time in their lives. In many instances they have aheady been betrothed to potential husbands and therefore spend considerable time preparing themselves for marriage: carrying firewood, twining string, spinning thread, grinding maize, weaving bas kets, making pots, and collecting food.

After the rites of puberty have been completed, a girl is no longer regarded as *yukwaki* (a girl), but is free to have intercourse with her potential husbands and to be married to one of them. In this connection it is interesting to note that there were a number of girls at Tibaera aheady married or having intercourse who had not yet menstruated. Ngida (Bow), a boy, for example, was married to Yikfna (Owl-monkey) while I was living at Tibaera. She was about ten years of age and showed no signs of maturity at this time. Some two years later I made a plane flight to Lago Huachi, on which some Siriono were *c*amped, among them Ngida and Yildna. The latter was just begin ning to show signs of .adolescence after more than two years of marriage. In another instance, Kbnbai-fieti (Little-man), a mature man whose wife had died, married Edab6bo (Armpit), a girl who had not yet reached adolescence. They lived together for some months while I was at Tibaera.

Marriage

The preferred form of marria e is that between a J.!lan an mo er s rother's daughtr. arnage e *tween a man and his f ather's sister's daughter is f or* biqde*n.* Preferential mating is thus of the as)'ll)metri cal cross-cousin type. In actual practice, however, the choice of a mate is not limited to a first cross-cousin. If such a relative is not available for marriage, a sec ond cross-cousin, a first cross-cousin once removed, a classificatory cross-cousin, or a non-relative may be substituted.

Of the fourteen marriages which I analyzed Jn one of the band_s, six were between a man and his mothers brother's daughter. The rest were either between sec ond cross-cousins, first cross-cousins once removed, classificatory cross-cousins, or non-relatives. Although marriage between a man and his father's sister's daughter is forbidden, I did, however, find one in stance of a secondary marriage between a man and his father's sister's daughter's daughter, i.e., his first cross cousin once removed through his father's sister. But marriages of this kind are exceptional (secondary, etc.) rather than the rule, as attested by the fact that almost 50 per cent of them were between a man and his mother's brother's daughter. The preference for the latter type of marriage is also clearly reflected_ in the kinship system. A man calls .his mother's brother's daughter "potential spouse," and a woman calls her father's sister's son "potential spouse,"while a man calls his father's sister's daughter by the same tenn that he calls his father's sister, and a woman calls her mother's brother's son by the same term that she calls her brother's son.

Except for the existence of such upsetting factors

Plate 9 Pregnant woman, Eakwantui; later she gave birth to twins *(Tibaera).*

Plate 10 Siriono chief and his five wives outside of primitive hut at Casarabe.

Plate 11 A group of Siriono women and children waiting for food.

Plate 12 Father of newborn 'Child, decorated with animal-teeth necklaces and feafhers. as polygyny, divorce,. death, sororate, levirate, etc.,

.more martj ges betwee11 preferred cross-cousins would likely occur. Beeause of on.eor another of these factors, however, there seems to be_ a tendency on the part of .IDe adult men to marry youn-ger second wives w-ho stand. in a classificatory, rather than a real cross cousiri. relationship to them. Hence, when a young man reaches marriageable age, he may find that his first cross-cousin has already bee!). taken to wife, and he is forced to marry a classifica,tory ross-cpusin in.. ad of his rightf ul spouse.

In addition to acquiting a -wife By cross-cousin mar riage, a man may also obtain a first second, fhird,_ or • fourth wife by means of the sororate or the levi:i:ate,. both of which are practiced by the Siriono.Of the four plural marriages in one of the bands, three ere be tween a tnan and two or more sisters. In the fourth, the ,mart ha,d acquired hissecond wif e through the lev irate.. There is *po $et* rule, however, that a man who J;l}atries a womaɪ must also•:marry her sistei;s, or that a man •must rnarzy tlie-wif of a brother on the occasion of the latter's,death. If a man desires these wives> how-: ever, he .has first clajm upon them, and he •usually takes advantage of his rights if thewoman is young or other.wise desi.r. able.

. G. erally speaking, there is a •strong tendency fqr

_protliers to marry sisters. Hence, the condibon which earfier •evol*u*tionary writers referred to as ,group mar riage is.commonly found amongthe Siriono..

I'here are no fixed rules of endogamy or exogamy.

.. Bands are more endogamous than exogamous, how ever, beqause they rarely• have :relations with one an other and because ,eligible mtes can usually be found within one's own ban.di When bands do cqm i1t con.-: tact with oµe another, exogainoµs marriage may occur. Sometimes, too, when there are no available real or classificatory cross-cousins or non-relatives in the band, a man may ge in quest of a wife from another band. But instances of this kind are rare for several reasons. In the first place, to locate another band in volves great effort; it, may mean as many as eight or ten days•' journey on foot In the second place, if a man does run across another band, he has no security of finding a wife there, since the men of that band are likely to hoard their women Jar themselves. In the third place, even though a.man has no real wife in his own band, he may possess a number of potential wives and thu.s not lack for sexual partners. Finally, because of the rule of matrilocal residenGe, a man will think twice before abandoning his relatives for a set of in laws who may be hostile to him.

The age -requirements f r marriage are very elastie. Infant betrothal is not practiced, but both boys and girls ar often espoused before they have reached the age of maturity. Girls, however, must undergo the ptv berty ceremonies prior to intercourse and marriage. Boys, on the other hand, undergo no rites or tests of any kind before marriage.

The negotiations for marriage are made between the potential spouses themselve, although the parents in-law usually know beforehanc:l when the marriage is about to take place. The period .of courtship is brief. It consisfs principally in an indulgence in sexual inter course on the part of the potential mates and in their arrival pt a decision to s.et up house together. If a girl shows reluctance to marry with her potential spouse,. she is chided by her mother for 'her shortcomings and is thus usually forced into the marriage by ridicule.

The marriage itseH takes place without ceremony. *T*his..,is literally true. No exchanges.of property occur.

The wedding is not even signified by such a simple act as a feast. Te marriage rite consists merely in a , notification of the parents-in-law of the decision to marry and of a removal of *the man's h*ammock resience r*o*m its accustomed lac • the house next

to that of his parents) to a position next to that of , bis wife's parents. Consequently matrilocal residence among the Siriono, when marriage is endogamous, con sists of nothing more than a shift of locale within the same house. It is true that newlyweds become the butt of sexual jokes and horseplay for several days, but formal occurrences accompanying the union are com pletely lacking. In other life crises, such as births and deaths, the immediate participants are at least deco rated with feathers, but in the case of marriage even this sign of festivity is lacking.

Although matrilocal residence, in endogamous mar riages, does not involve a very great spatial removal of a man from his relatives, it does produce a consid erable change in his social obligations. After marriage, a man, instead of hunting for his parents, his sisters, and his unmarried brothers, must hunt for his wife's parents, for her sisters, and for her unmarried brothers. While these obligations a.re reciprocal, a man usually supplies more game to his in-laws than he receives in return. A man's relations with his own family, however, are not completely disrupted. Besides being related to his in-laws by blood, he continues to reside in the same house as his family. Moreover, his brother may be married to his wife's sister. If not, his brother is at least a potential husband of his own wife with sex rights over her. Hence, brothers usually maintain close bonds after marriage. They continue to hunt together especially, even though their game may be distrib uted in different ways.

Only in exogamous marriages are a man,s •relations with his family completely upset. Because of eco nomic factors, resistance to such marriages sometimes arises. While I was at Tibaera, an exogamous maage occurred whi<;:h changed existing conditions consider ably.A man named Kimbai-iieti (Little-man) had been previously married to a woman who died. Since there was no available spouse in the band for him to marry, he was without a wife-. He continued to reside, how ever, with his mother-in-law and her other daughter, who was married to another man. Kimbai-fieti was an excellent hunter and brought a great deal of game into the household. When I arrived from the forest in com pany with the

band of Aciba-e6ko., Kimbai-fieti lo cated a potential spouse in this band. A marriage was arranged. His former mother-in-law, however, tried her best to break up the match, but without sttc cess. Kimbai-fieti left her house and moved in with his new wife and in-laws. Consequently .his former mother-in-law was forced to seek other means of sup port. Before doing so, howevet, she tried to convince Kimbai-fieti and his new wife to violate the rule of matrilocal residence and move back to her house, but they would have none of s-uch a plan.

Polygyny is allowed and sororal polygyny ls• pre ferred. Four of the fourteen marriages in the band of Eantandu were plural marriages, and three of these were sororal polygynous unions. Only in one instance was a man married to as many as five wives. Three of these were sisters, while the other two were parallel cousins (classificatory sisters) of these. This man was not a chief but a person of considerable maturity and distinction, being about the best hunter in the band. The chief, however, had three wives, two of whom were sisters, while the third he had inherited from his younger brother who died. One of the chief s other brothers also had two wives who were sisters. In the other polygynous union, the man had inherited his second wife from his mother's brother who had died and left no other brothers to whom she could pass,. *O:*g. the whole *l*ural marria es tend to occur amon th ie s and the better . hunters!who are peovle of the highes*t status.*

Divorce is relatively easy and is usually caused by adultery or by too frequent intercourse with potential spouses to the neglect of the real spouse. The men always divorce the women, i.e., they "cast them out" or "throw them away." In instances of this kind, the woman usually immediately marries one of her poten tial spouses with whom she has been having sex re lations. Divorces are not common. Women are an asset as long as they can work and bear children, and more than one wife is a mark of status. Thus, although men frequently threaten to divorce their wives *so* as to keep them in line, they actually rarely ever do so.

The children of divorced couples always remain with the mother. The father changes his residence back to that of his relatives or to that of his new wife. He continues to supply his children with food, how ever, at least until the mother remarries. Relations be tween divorced couples are not particularly strained. No stigma attaches to a divorced woman and she may even .occasionally indulge in sex with her former husband.

Adulthood

Adulthood is the time o*f lif e . when responsibilities* re the reatest and status the *bf* ihest, Amoni the iriono this state is si •• • . d • • tained when c •dren *a*re *born. Bache*lors and spinsters, of whom there are few, have little position in this society, where survival depends on all types of co-operation between husband and wife.

The Siriono are ushered into adulthood prematurely if not abruptly. Younger than in most societies one must take the role of an adult, for younger than in most societies one grows old and dies. The rigors of life being intense, there is a fifty-fifty chance, at least, that one's parents will not be alive when one teaches childbearing age. Consequently boys and girls are fre quently married before they have undergone the physiological changes that accompany adolescence.

While the obligations of adult ot extreme (e -nee s o 1e y are *minimal*),•the strugg e

(*or s*urvival is intense. There is no sec*ur*ity of foocf; there are long and forc*ed* marches through spiny jun gle and swamp; there are many sleepless nights of wind, rain, and insect pests; there is constant threat of disease and death. In short, the natural environ ment is harsh, and the techniques which the culture has developed for dealing with it are crude and inse cure. Hence a person must be on the alert most of his waking time to procure the bare necessities of life. While ceremonial life is almost negligible among the Siriono, membership in full adulthood is signified by participation in a bloodletting ceremony and drink ing feast which is called *hidai-idakwa.* This is about the only ceremony performed by the Siriono. It was never held while I was living with them, but the marks on the arms of adult men and women were visible evi dence that it is occasionally performed.

H idai-idakwa, Q! ann piercing, is never carried OJit u_ *ntil one is adult and has had childr,e*n. As Eantandu told me, "When a woman has had a child and a man is father of a child, they are ready for *hidai-idakwa."* rincipal reason fo .in. th.e eremon is to *get rid of o* oo -to rejuvenate o . Eantandu said, "The blo*o*d is heavy; it mu t *b*e 'thrown away.'"

Hidai-idakwa also performs the magical function of increasing the supply of food.

Under strictly aboriginal conditions the ceremony is apparently held once a year, when the trees are flow ering and there is an abundance of honey. Men and women collect large quantities of honey, and mead is brewed. While the mead is maturing, people partici pating in the ceremony have their hair cut, are deco rated with feathers and painted with uruku (*Bixa orel lana).*

The ceremony begins with a drinking .feast. The men!hold one, the women another. Children are tended by those too young to take part or by those not participating in the ceremony for other reasons. Singing and dancing are a prominent part of the festi val. When the participants reach a drunken stage, they pierce each other in the arms with a dorsal spine of the stingray, and the blood is let into small holes iI;t the ground. Men usually perform the operation both on themselves and on the women. Each person is punctured about haH a dozen times, the men on the lower arms from the wrist to the elbow and the women on the upper aims from the elbow: to the shoulder.. On the morning following bloodletting, the men de part for the hunt at the break of day, the women fol lowing (with baskets of ashes which they spread along the trail) to gather palm cabbage. They return from the forest about noon, and drinking begins again. By the end of the second day the supply of mead has usually been emausted, and the celebration ends.

A general feast is not held during the ceremony, but people eat at therr own fires. Old pots must be thrown away, and cooking is done in new ones. According to informants, the participants are not allowed to eat the following foods for about three days after bloodlet ting: guan, coati, anteater, jaguar, deer, squirrel, otter, monkey, tortoise, fox, armadillo, paca, porcupine, agouti, and palm cabbage. If they

violate these food taboos, it is believed that the wounds caused by bloodletting will become infected. Consequently, the game hunted by the participants is distributed to members of the extended family not taking part inthe rites. According to E6ko, the diet of the ceremonial party is limited to peccary, tapir, fish, and vegetable foods (except palm cabbage).

No one is obligated to undergo *hidai-idakwa.* bu!_ the scars **left** on the arms • by bloodletting are always pointe to with pride. Every child aspires to *such* a series of tribal mar , for they are visible evidence .of maturity.

Besides being a rejuvenation ceremony and a mark of adulthood, *hidai.-idakwa* is also believed to ensure the supply of food. Kenda told me that during the ceremony, the animal*s* all come near the house to see the men gaily attired with feathers and uruku, and to hear them sing. Therefore, when the men go out tQ hunt after *h«lai-idakwa,* they always encounter game. The adult Siriano spends about half of his waking time wandering around the forest in search of game and food. About one third of this is spent alone, one third with fellow hunters, and one third on expedi tions with his family. On the average hunting, day he covers approximately fifteen miles. Unless he is ac companied by his wife or fellow hunters, he alone car ries in the game that he bags. He spends little time in his gardens except at sow1ng and harvest..His working day consists largely in hunting, fishing, and gathering.

The adult female, on the other hand, spends much more of her time in the house.When the band or fam ily is not on the march, she devotes a large part of each day• to cooking, eating, attending children, quar reling with her neighbors, spinning cotton thread, twin ing bark-fiber string, weaving mats or baskets, coiling pots or pipes, repairing hammocks, preparing feather ornaments, carrying water, bringing in firewood, or collecting motacu fruits and palm cabbage, which are found in abundance just outside every hut.. She sel dom goes any distance into the forest alone or in company with other women. During the rainy season, however, she frequently makes excursions of a day or two with her husband to collect wild fruits, and during the dry season, she may be more or less con tinually on the march with the entire extended fami*ly* in guest of food. Like her husband, she does little agricultural work, this being a relatively unimportant activity.

When not wandering around the forest, the adult male is most frequently found in his hammock: rest ing, eating, smoking, playing with his children, argu ing with his wife, cursing the weather, slapping in sects, repairing or making arrows. Apart from these activities, he has little recreation. *He ha.s few ft*ieuds but his imme • elatives• he Ia s no games; he indulges in no -sports except occasional wres g; •e does not gamble; he rarely gets drunk, not more tha six or eight times a year; he has no hobbies but sex, which he indulges in whenever .ves him; he belongs ta no c u s or associations; be bas few nl*"agical or religious obligations; he sometimes t*akes pa-rt in *singing and dancing with his* tribesmen on nights of the full moon, but only rarely (about once a year) joins them in drinking and bloodletting to re store his fading youth All in all, his activities remain on the same monotonous level day after day and year after year, and ther are centered largely around the satisfaction of the basic needs of bun er, *se d avoidance o* a e an pain.

The life of a woman is equally harsh, drab, and con cerned with basic necessities of life. While a womanJs position is little inferior to that of a man, the obliga tion of bringing her children to maturity leaves little time for rest. She enjoys even less respite from labor than her husband. Her recreation is derived principally from the gossip and quarreling that occur around the fireside, when she is performing the routine household tasks that must be done each day. While she enjoys about the same privileges as her husband, the peren nial presence of young children often prevents her from participation in the recreational activities that do exist.

The period of adulthood among the Siriono can hardly be termed a happy one. At best, an adult can look forward to occasional periods of food satiation, sexual satisfaction, and relief from anxiety and pain-a few years during which to bring his children to maturity so that they may carry on. By the time a person is thirty years of age, his powers begin to wane, and as he approaches forty, he is already in the cate gory of old age. Shortly thereafter, he must make way for his grandchildren and face his declining years in dependence and neglect.

Old Age

The aged experience an unpleasant time in Siriono *socief*y. Since status is - determined largely by immediate utility to the 2roup, the inability of the aged to *c*ompete *with the younger members of the socie*ty places *t*hem somewhat in the cate ory of excess 6ag gage. avmg out •ved eir use ness, ey are re e *g*atect to a position of obscurity. Actually the aged are quite a burden. They eat but are unable to hunt, fish, or co*ll*ect food• the sometimes hoard a oun. spouse but are *u*nab e to be et c i ren• the move at a snail s pace an hinder the mobili of the ou . ere enstence depends upon direct uti 'ty, how ever, longevity is not great. The aged and infirm are weeded out shortly after their decrepitude begins to appear. Consequently the Siriono band rarely con tains many members who belong to generations above the parent or below the child. At Tibaera there were only four grandparent-grandchild relationships, and great-grandparents and great-grandchildren did not exist. Although this is a hazardous guess, the average life span of the Siriano-discounting infant mortality probably falls somewhere between 35 and 40 years.

Besides the inability of the aged to perform as well as younger members of the society, certain physical signs of senescence are also recognized. Women who have passed through the menopause are assigned to the category of *anili*ty. Deep wrinkles, heavy beards in men, gray hair (occurs very rarely), stooped shoulders, and a halting gait are also regarded as signs of old age.

When a person becomes too ill or infirm to follow the fortunes of the band, he is abandoned to shift for himself. Since this was the fate of a sick Indian whom I knew, the details of her case will best serve to illus trate the treatment accorded the aged in Siriono so ciety. The case in question occurred while I was wan dering with the Indians near Yaguaru, Guarayos. The band decided to make a move in the direction of the Rio Blanco. While they were making preparations for the journey, my attention was called to a middle-aged woman who was lying sick in her hammock, too sick to speak. I inquired of the chief what they *planned* to do with her. He referred me to her husband, who told me that she would be left to die because she was too ill to walk and because she was going to die any way. Departure was scheduled for the following morn ing. I was on hand to observe the event. The entire band walked out of the camp without so much as a farewell to the dying woman. Even her husband de parted without saying goodbye. She was left with fire, a calabash of water, her personal belongings, and *n*othing more. She was too sick to protest.

When the band had left, I set out in company with a number of Indians for the mission of Yaguaru to cure myseH of an eye a*i*lment. On my return about three weeks later, I passed by the same spot again. I went into the house but found no sign of the woman there. I continued my journey down the trail in the direction of Tihaera and soon came upon a hut in which the hand had camped the day I parted from them. Just outside this shelter were the remains (and hammock) of the sick woman. By this time, of course, the ants and vultures had stripped the hones clean. She had tried her utmost to follow the fortunes of the band, hut had failed and had experienced the same fate that is accorded all Siriono whose days of utility are over.

Disease and Medicine

The principal ailments of Which the Siriono are vie-_ tims" are malaria, dysentery, hookworm, and skin dis eases. Among the aboriginal groups still surviving in the forest, venereal diseases and tuberculosis are as ycl *u*nknown, but under conditions of contact, these *mala*dies have been largely responsible for the decllii ing population. Su*ch* tropical diseases as leprosy and yaws, al*t*hough common among the whites, are un known among the Indians.

Knowledge of disease and medicine is not exten sive. While a theory of natural causation is recognized with respect to such minor ailments as wounds, burns, and stomach trouble, the majority of maladies, as well as accidents, are thought to be caused by evil spirits called *abacikwaia.* These spirits enter the mouth or nose when a person is sleeping (especially when he is SI\Oring) and settle in the regions where the pain is felt.

In a confused sense there is also a belief that dis ease is caused by the absence of soul. A person's soul may leave his body while he is dre*a*ming, and if it does much wandering during the night, he is

apt to be tired and ill the following day. Informants fre quently told me that they were ill because their souls had been "hunting" or "walking"the night before.

The violation of taboos, too_, especially food taboos, may be regarded as one of the principal causes of disease. The conditions following a breach of tribal custom are particularly favorable for the entrance into the body of the innumerable evil spirits which are ever present in nature.

Sorcery and witchcraf t seem to be almost negligible as causes of disease. I never heard of a single instance in which individuals were accused of employing such methods to injure fellow tribesmen. I was told, how ever, that threats of sorcery are not unknown as a means of keeping people in line. If a man has an enemy who has been causing him trouble, for instance, he may say to him, ..Watch out, or I will take you with me when I die." But such admonitions are rarely used, however effective they may be as a means of deter ring people from harming others.

As sickness not infrequently leads to abandonment and death, the slightest provocation is cause for alarm. When ailments appear, the Indians take to their ham mocks and rarely leave them again until all symp toms of the disease disappear or until death overcomes them. The conditions for cure, however, are very ad verse. The patient lies in his hammock, on the side of which a smoky fire is kept burning, thus shutting him out from proper air. Moreover, the house is always dark, and since it offers but the flimsiest protection from the weather, the patient is constantly exposed to rain and cold. On the psychological side, condi tions are even worse. The patient is himseH filled with an intense anxiety that he is going to die, and this at titude is reinforced by his relatives, who do little or nothing to change it.

The anxieties accompanying illness are, of course, very realistic among the Siriono, for they have almost no methods of eHecting a cure.. Shamans and medical practitioners are entirely lacking in this society, so that a patient must depend largely on the fortunes of chance in order to recover. Near relatives (always women), such as a mother or a wif e, may sometimes chant over a person who is slightly ill, but if he takes a turn for the worse, he may be neglected and thus gradually die from lack of proper care. *H* the tribe is on the march, he may even be abandoned with no hope of recovery. Doubtless for this reason such a great fear of sickness exists.

One of the principal si*g*ns of illness, apart from the p_aih that accompanies it, is the loss of appetite. When *p*eople cannot eat, they are believe*d* to be *e*ry ill. *H* a person does not eat for several days, it is regarded as a sure sign that he will die. For this reason, patients never diet when they are ill. The anxiety based prob ably on the drive of hunger is sufficiently strong to enable people to eat when food is definitely detri mental to them. In several such instances which I ob served, people actually ate themselves to death.

While I was at Casarabe, Teko became sick with dysentery-like infection of the stomach. His illness coin cided with the season of maturity of the wild fruit coquino, which is greatly relished by the Siriano. In view of the nature of his illness, I suggested to Teko tl1at he refrain from eating this fruit for several days because of the acid which it contains, often highly irritating to the stomach when eaten in large quan tities. But my words had no effect. His relatives col lected huge quantities of coquino during the day and brought Teko large baskets of them every night on their return from the forest. In spite of terrific stomach pains and diarrhea, he managed to eat as many as a hundred of these fruits (each one about the size of a large plum) each night, thus irritating his otherwise painful condition. After several days of such a diet, he finally expired one morning, but not without having eaten a full basket of these fruits the night before. Un til his death his prognosis had been good, according to native theory, because he had been able to eat.

In general the *materia medica* is sparse. Urukg *(Bixa orerlana), whose cnrin" prope*rties are beiiey to *be very beneficial is the panacea for all ills.* Its p*owers are believed not only to dtive out the e*vil spirits that cause disease, but to protect one from them as well. Consequently, in sickness or in health, the In dians are rarely seen without a protective covering of uruku. Whenever I myself was ill,_ uruku was always the first remedy suggested to me by my Indian friends. Scarification is widely practiced as a relief from pain.

The suffering individual is scratched (by himself or by one of his relatives) with an eyetooth of a rat or squirrel in the area where the pain is felt. A small amount of "old blood" is released by this practice, and the scarified area is covered with uruku. Massage, too, is employed to cure minor ailments. In chest com plaints, for instance, the back and chest are vigorously rubbed with the hands and kneaded with the fists. Sucking and squeezing are most generally employed to extract pus from festering wounds.

Herbal remedies are almost unknown, except in the treatment of diarrhea. A diarrhetic child is sometimes treated with a decoction made from the bark of a tree which the Siriono call *hidi-ndi-mbi.* Strips of the same bark are also wound around the patient's stomach. Green leaves are bound over open wounds and sores, and strips of bark-fiber are bound tightly above in fections of the arms or legs to prevent their spread.

The Siriono possess no remedies for snakebite and have no knowledge of setting broken bones. Aching teeth are extracted with the fingers after they become loose. Hairy skin worms, of which the Indians are con stant victims, are removed in the following manner. A small amount of the sticky substance from the inside of the pipe stem is extracted with a palm straw and placed in the hole where the worm resides. This ir ritates the worm, which pushes out its head for air. It is then grasped by the head and squeezed until it pops out of the skin.

Death and Burial

For a Siriono death is the culmination of an often short and always bitter struggle for survival. Having wrestled valiantly to live, he wrestles equally valiantly not to die. But the odds are all against him. His en vironment and culture are harsh. Having no medicine to prolong his life, he is often consigned to an early grave; having no religion to ca1m his soul, he fre quently dies with *fear* and bitterness in his heart.

A dying individual, unless he is a child, is given little attention. His near relatives, however, generally assemble to watch him breathe his last. The women mourners sit on the ground around him and weep pro fusely, but the men show few signs of grief . They usually squat around him and silently smoke their pipes. When a great hunter is dying, however, fellow tribesmen sometimes squat around him and ask him to pass them some of his luck. If , for instance, he was a great hunter of tapir in his day, they may ask him, "Grandf ather, where can we find tapir?" He usually answers, "After I die go to [such and such a place] when the sun is rising and you will find tapir." On the sunrise following the disposal of the corpse, the men set out for the spot designated and often find a tapir there.

Amon the Siriono a person • t allowed to die in 1s ammoc . ea in a *h*am *d* it will have to e t rown away. Therefore, a dying in&v*1dual* is *u*sually removed from his hammock sev eral hours bef ore death and placed on a mat woven from the heart leaves of motacu palm. Once on such a death-mat a person seldom recovers. As he more closely approaches his fate, he is poked in the eyes or pinched in tl1e genitals from time to time to note whether he still shows signs of lif e; his mouth is frequently opened to determine whether he is still breathing. Only when a person ceases to breathe is he regarded as dead. nee he is dead, however, little attention is paid to his *corpse* un *1 sposa ,* w 1c must ta e p .

the next sunset.

Aboriginally •the Siriono do not bury their dead. The corpse, extended with arms to the side, is wrapped in two mats of motacu palm and placed on a platfonn in the house. It is not oriented in any special way. With the ,deceased are placed his calabashes filled with water, his pipes, and fire. No food is left. Once the corpse is disposed of the house is abandoned, but be fore leaving, the men shoot arrows in all directions through the house to drive out the evil spirits. The band then mo:ves on to a new location-often several days away.

I | |

The period of mourning lasts about three days. On the day following the disposal of the corpse, mourners are scarified (by near relatives) on the upper and lower legs with an eyetooth of a rat or squirrel, and they rub their legs and faces with uruku. On the sec v arpy eagle, the curassow, and the toucan. With this ond, day, they are decorated with the feathers of the h protection they may resume normal life, on the third day.

Although grief-stricken parents and widows often do not eat for a day or .two following the death of a beloved one, there are no food taboos that apply spe cifically to the period of mourning.Widows usually cry ceremonially about,an hour a day for about three days during mourning, but apart from this they undergo no more strenuous rites than other relatives of the de ceased.

A widow or \ *v*idower may remarry within a few days after the death of a spouse. In three deaths which

Iobserved, ffie widows were married by levirate hus bands on the third day after the mortuary rites. In two of these the widows passed to the deceased's old est brother; in the third, to his parallel cousin (classifi catory brother).

While living with the Siriono, I never bad an oppor tunity to observe a funeral under strictly aboriginal conditions. However, Iwas present at a number of deaths at Tibaera where, according to informants, the mortuary rites were essentially the same as tl1ose which take place in the forest, except that the corpse was interred and that the house was not abandoned. Some details of these will best serve to illustrate the treat men't of the dead in Siriono society.

Eresa-eoko (Long-eyes), a bearded man of about ferty years of age, died in October 1941. About ten days before his death, he was stricken with sharp pains in his stomach, accompanied by constant diarrhea. He told me that an *abacikwaia* (evil spirit) was respon sible for his illness. During the ten days that he lay sick, he was attended solely by his wife. Although she gave him no medicines of any kind, she stood by his hammock and hummed chants for an hour or _so each day to drive out the evil spirits. This treatment being unsuccessful, she took six of Eresa-e6ko's arrows and stuck therri into the ground near the head of l1is hammock-also to drive out the evil spirits. But to no avail, for Eresa-e6ko got worse and worse and died shortly thereafter.

In the maming of the day of Eresa-e6ko's death, his wife wove two mats of motacu palm. Eresa-e6ko was lifted from his hammock while still alive -and placed on one of 'these mats, where he lay groaning most of the morning. He vomited and defeca1ed freque11tly. f he vomit and excreta were cleaned up by his wife, who wrapped them in leaves and placed them in a special basket hanging nearby. She sat watch over him, opening his eyes and mouth and pinching his testicles from time to time, until he finally died at about two o'clock in the afternoon.

As soon as it was certain that Eresa-e6ko was dead, his corpse was covered with a mat of motacu and, within an hour's time, carried by several of his cousins about a quarter of a mile into the forest for inter ment. The funeral party consisted of five men-all cousins of the deceased-and the widow. Besides the corpse,. they carried with them various possessions of the deceased: his drinking vessels full of water, his pipes, fire, and the basket *c*ontaining his vomit and ex creta of the previous ten days. Upon arriving at the burial site, they dropped the corpse and these posses sions to the ground, and a shallow grave was hastily dug with a digging stick by one of the men. This was lined with green boughs of the motacu pahn, and the deceased was rolled into it and buried. His calabashes and pipes were placed on top of the grave, and a small fire was built on either side. The vomit and excreta were then thrown away near the grave, and the party returned to the house. Although the widow wept silently during the proceedings, not a word was said by a single member of the funeral party. After return ing to the house, the men went to the river and bathed.

On the day after the burial of Eresa-e6ko, his widow was scarified on the upper and lower legs by a co wife. Uruku was then applied to her legs and face, and she was decorated with feathers. She ate nothing for two days, although she smoked her pipe almost con tinuously. She cried ceremonially for about an hour each morning -for three days, after which she moved her hammock xt to that of one of the wives of Eresa eanta, her husband's parallel cousin, to whom she passed under the levirate. Other members of the funeral party were also scarified and decorated with feathers.

While I was living at Tibaera, an infant of about six months of age died one morning about eleven o'clock. It had been ill for about three days with a stomach *a*ilment, caused, according to the mother, by an evil spirit. After the death the mother began to wail terrifically (the Siriono always express deep grief over the death of a child) and shortly thereaf ter emptied her bteasts on the ground. About an hour later, she scraped up the wet dirt and put it into the basket where the child's excrement was stored.

The child was interred about four o'clock the same afternoon. The parents were the only people who went to the grave besides myself. The mother carried the dead infant wrapped in the baby sling which she had been accustomed to transport it in, and it was buried in a shallow grave lined with green boughs of motacu. A fire was made on both sides of the grave before the parents returned to the house. Both fasted for the rest of the day. The following day they were scar ified on the legs and decorated with feathers. The father ate on the day following the burial, but the mother continued her fast until

the second day, when she resumed normal life, except for occasional periods of wailing. She continued to empty her breasts, how ever, to prevent them from drying up.

The disposal of the coipse does not end contact with the dead. After th • deceased to return

If ey are not buried, the soul

(monster) *a*nd *cause illness* and death to the sur vivin members of the family. The skull, however, is not interred. It is ei er carried back to the house, where it rests in a special basket near (or under) the hammocks of the immediate relatives of the deceased, or it is abandoned at the site where the bones are buried. In every Siriono hut one finds these skulls, which have been saved as protective family heirlooms; and in wandering around the Siriono country, one not infrequently encounters old skulls that have been thrown away.

The skulls of the ancestors are preserved and car ried around for a while as a protection from disease and death. They are also sometimes used in curing. No set rule determines whether a skull will be saved or thrown away. There is, however, a tendency to throw away old skulls as new deaths (and conse quently new skulls) appear in the family, and there is also a proneness to save only the skulls of people greatly loved, such as young children, or of important personages in the *f*amily, such as great hunters or chiefs. Many mothers whom I knew in Tibaera were carrying around the skulls of infants who had died not long before. They all told me that they were apt to be sick if they did not follow this custom. In one family which I knew, the skull of a chief called Embutandu (Father-of-Bearded-one) had been carried around by one of his daughters for many years. Whenever any member of her family was ill, this skull was employed to effect a cure. On one occasion I walked into the house and found Nyeka, a son-in-law of the deceased Embu tandu, "sick in the chest." He told me that he had an *abaoikwaia* (evil spirit) in his chest which was causing him great pain. I asked him how he was going to cure his ailment. He picked up the skull of Embutandu, rubbed it across his chest for a few minutes, and then replied, "Tomorrow, I willnot be sick."

When skulls are employed in curing, no magical for mulae are recited. Moreover, they are given no special treatment and care apart from being kept in a basket of their own. They are not worshiped, for example, and no offerings are made to them. On occasion, how ever, I have seen them covered with uruku to make them more effective in curing.

With respect to the cult of the dead, I was told by my companion Silva, who had lived for many years among the Indians at Casarabe and Chiquiguani, of another custom which he said prevails among the Siri ono. He told me that when a man has had a long streak of ill luck in hunting he may repair to the spot where the bones of an ancestor-one who had been a great hunter-are buried and ask bim to change his luck and to tell him where to go in quest of game. Upon inquiring of informants as to whether such a custom was practiced, I was answered inthe negative by most of them. *A* few, however, told me that others may have followed such a practice,but that they them selves had never done so. I might add that during all of my residence among the Siriono-and the hu.nting was frequently bad-I never observed an Indian carry out such a rite.

Chapter X. RELIGION AND MAGIC

Religion

NATIVE religion has not reached a high degree of elab oration among the Siriono. One of the reasons for this may be that the Indians are forced to devote most of their time and energy to the immediate struggle for survival. Both shamans and priests are lackiQg in this unprofessional society, an.d the confused beliefs and practices that are adhered to with respect to the supernatural world have not been integrated into a complex religious system. .As in all societies, however, a distinction between the sacred and profane, the holy and unholy, is clearly drawn by the Siriono. The existence of taboos, of ceremony, of belief in evil spirits, etc. all bear witness to a concern with religious matters.

In this sim le society, however, there is no belief in a hlerarc estin . of man. e on y su . em which the 1r1ono e eve 1n. s as a rea y een mentioned, mythol*gy* 1mparts considerable power to this culture hero who was responsible for the creation of the world and all that is in it, and attesting to the fact that the moon still plays some role in the aff airs of men are such beliefs as that the moon causes thunder and light- ning by hurling peccaries and jaguars down to earth and that to sleep under the rays of the moon causes blindness. But the 1noon ean S<' r<'P.lu hP rPcr „flpcf !:le: a supernatural being in the usual religious sense. It exerts little or no influence on the affairs of men, and no cult has grown up around it.

*T*he core of Siriono reli•ious belief is centered in the fear of animistic spirits. e universe IS ou to be peopled with detached evil spirits called *abacik waia,* which are responsible for most of the misfor tunes. that befall the human race. Thus cold south winds, accidents, illnesses, bad luck, deaths„ etc. are ascribed to the intervention of *abacikwaia.* These spir its are µivisible and formless, little can be done to control them, and they are neither worshiped nor propitiated in any way. They can best be avoided by adhering to the traditional customs of the band.

The s•• *also* believe in monsters, of whom the have reat fear. These are ca e

a i*waia.* w c are inyisib)e aud £onnJess, t1m-> *kffrukwa* are visible and somewhat resemble humau, beings. But they are Jatge, ugJy, b]aek. avd baitJ. These monsters lurk outside the house at night, where• they await their victims, carry them off into the forest, and strangle them. Sometimes the *kurukwa* even come into the house and snatch people from their hammocks while they are sleeping. During the day, however, there is little danger of the *kurukwa.* They have great fear of the bow and arrow. Consequently hunters are never assaulted.

Informants told me that the *kurukwa* are especially fond of waiting outside the house on nights of drink ing feasts. When the men are drunk, they often go outside the house to urinate or defecate. The *kurukwa* await them at the edge of the forest and say, *"Man yen ererekwa Mri"* ("What is the name of your chief?"). (The *kurukwa* are especially fond of killing chiefs.)

T£ .a.l.. -!–.a. .a.1-. - £ .a.l. *,.1-.:..,.£* ....h .n Z...,

rukwa, they will not be harmed; if not, they may be carried off into the forest and strangled.

The *kurukwa* are believed to have companions like men. When they are unable to find human victims, they hunt tapir, peccary, and other animals. Kenda, who was one of my best informants at Casarabe, told me that it was dangerous to let my horse run loose at night because a *kurukwa* might strangle *him.*

Many informants identified both *abaclkwaia* and

kurukwa with ghosts of the dead. Some time after the death of Teko, an Indian of Casarabe, Kenda told me that he had become a *kurukwa* and that he had been seen in the forest by other men. At Casarabe one night an old woman was attacked by a *kurukwa* while asleep in her hammock-j*u*st three days after the death of her husband. I fired a pistol to drive the *kurukwa* away,but for several nights thereafter the woman slept with an arrow by her side so as to be able to resist attack. In another instance a widow at Casarabe re married without undergoing the usual three-day pe riod of mourning.

She was severely criticized by her tribesmen, who thought that her dead husband would return as a *kurakwa* to wreak vengeance on the group.

Magic

Magic, like religion, is little elaborated among the Siriono. Most magical practice that has not already been described has to do in one way or another with increasing and ensuring the supply of food. Hunters hang up the skulls of the *a*nimals and the feathers of the birds which they bag on sticks near camp or on posts in the house to influence the same animals to return. They smear their faces with uruku and glue feathers into their hair to make them more attractiv:e to game. They also frequently paint the cotton string of their arrows and wrist bands with uruku to give them magical charm. When they kill a harpy eagle, they rub their bodies and hair with the white downy feathers of the breast to absorb some of the power of this mighty bird. They sing and dance not only for recreation but to promote the supply of game as well. All these and many other magical practices already mentioned appear to have as their principal function a reduction of the anxiety that centers around the sat isf action of hunger.

I

Dreams

Dreams are thought to be caused by absence and wandering of the soul. Generally they are believed to presage the future. Hunters who dream about hunting a *certain* animal believe that this is a sign that they will kill one, and after such a dream they often go on a successful chase. One night Eantandu dreamed that he killed a tapir. Early the following morning, he departed for the hunt and returned late in the after noon, having bagged his prize. He told me that he knew he was going to shoot a tapir because he had dreamed about it. Such experiences are common among the Siriono and strongly reinforce the belief that dreams foretell the future.

If *dreams* are an unconscious expression of desires, then those of the Siriono clearly reflect their preoccu pation with the quest for food. While I was able to record data only on some fifty dreams, more than twenty-five of these are related directly to the eating of food, the hunting of game, and the collecting of edible products from the forest. An especially com mon type is one in which a person dreams that a rela tive who is out hunting has had luck and is returning to camp with game for *h*im. Enfa, for example, had a dream that Eantandu, who was out on the chase, killed a great many peccaries and was returning to camp with broiled peccary meat for him. Another recurring type of dream is one in which a person himself is out hunting and kills and eats a great deal of game. Kenda reported a dream in which he was hunting fish in a certain lagoon, and shot huge quantities. His brother was with him, and they roasted and ate fish until they could not move. Dreams also reflect strong desires to eat certain kinds of food. Before the ripening of the coquino fruit, which is greatly relished because of its sugar content, Ai-a dreamed that she was in the forest collecting with her husband and that they encountered coquino trees loaded with ripe fruit, which they ate until they were stuffed.

One of the striking things about food dreams is that they seem to occur just about as often when a person is not hungry as when he is hungry. The above mentioned food dream of Kenda, for example, was re ported the morning following a feast in my house the night before. Hence, it would seem that such dreams reflect considerable concern about food. Indeed, an intense psychological analysis of the dream life of the Siriono-whichIneither have the data nor the skill to make-might support the theory that hunger is the most intense motivating force intheir society.

The Soul

Ideas about the soul among the Siriono are con *fused and vague. W*hen questioned about such mat-"' ters, informants displayed a singular apathy for dis cussing them. Whether such attitudes spring from a lack of ideas, from a fear of the dead, or for some other reason, Iwas never able to determine. Some In dians said that the soul resides in the head; others, that it resides in the heart; still others, that they did not know.

Professor Richard Wegner (1934b, p. 21) has made the claim that tl1e Siriono have a belief in an after world called Mbaerunya, to which the souls of good hunters depart after death, and where they while away their time drinking maize beer with a Celestial Grand father who has many wives. Since this

statement has already been emphatically denied by Padre Anselm Schermair (1934, p. 520), I need no more than men tion here that I too found no evidence to corroborate such a belief in a hereafter. While notions of an after lif e have crept in where the Indians have had contacts with the whites, these are clearly assignable to Chris tian influence.

Upon inquiring of informants as to the fate of their souls after death, I was almost always given the an swer that they did not know. There seemed, however, to be general agreement that the soul of the deceased may become an *abacikwaia* (evil spirit) or a *kurukwa* (monster), but this form of survival informants were reluctant to contemplate for their own souls. Out of the confusion of ideas (or lack of them) that exist on the subject, it vaguely appears that the soul of a "good" man, i.e., one who has abided by tribal custom and has the respect of his countrymen, does not return in the form of an evil spirit or monster to harass his surviving relatives, but that that of a "bad" ma i.e., one who breaks tribal taboos and is disliked by his countrymen, may return in one of these forms to Cijuse sickness and death to the living.That the souls of some of the dead can be relied upon to assist the living is clearly indicated by the aforementioned practice of employing the skulls of some ancestors to cure disease. Informants, however, were never able to supply me with any clear-cut ideas as to what happens to the soul of a "good" person after death. One thing seems clear as regards es*chato*logical belief: there is no r-

Chapter XI. SOME PROBLEMS AND CONCLUSIONS

Sm10No society presents any number of important an thropological problems. Here, however, Iam able to discuss but few of them. Having presented in the fore going sections a few of the descriptive data about the nature ,pf Siriono society, Ishould now like to say a few final remarks-based on the Siriono-about the problem of hunger frustration and its relation to cul ture. In this discussion Ieven propose ultimately-f or this Ishall doubtless be severely criticized-to sug gest a number of broad generalizations as to the rela tionship between intense hunger frustration and habits and customs that doubtless can and should be tested in other societies where similar conditions exist. It is beyond the scope of this paper to deal with this mat ter cross-culturally. Before turning to a consideration of this problem, however, certain concepts must be clarified.

Physiologists and psychologists are now agreed that the human organism is stimulated to behave by what are known as drives. These drives are the motivating states of an or/anism. They are of two kinds: primary (basic or innate) and secon ary enye or ac u1re. . • e primary .nves ose w c result from the nOfIIlal biological processes and recur at more or less regul*ar i*ntervals, such as hunger, thirst, sex, fati *ue* an *a*in ur . are ound in all human beings. Secondary drives, on the o er an ,

*a*re learned chives. 11be - are . me motivations wliicb result from partieular cultural situations•:T e secon - , ary drives. •of course. are based op the primary drives aD:_d are supported b11r •be satis£actign of them. But unlike primary drives they are:not univei:sally the same. There are doubtless some secondary drives like pres tige and appetites that are found in all societies, but their intensities and definitions, at least, vary widely from person to person and from society to society. While among the ancient]lomans food preferences were elaborated to a pronounced degree, among the Siriano there is ahnost no expression of these second ary drives. Similarly, while among the Indians of the Northwest Pacific Coast the drive for prestige was in tense, among the neighboring Eskimo this drive seems to be but weakly developed.8

While it is axiomatic that every society must rein force or satisfy the basic drives of man in order to survive, up until recent times culture has been little studiecl from the point of view of the effect of basic drives upon it. We know from the ethnological litera ture now available that the drives of man are satisfied by almost as wide a variety of techniques as there are societies existing throughout the world. But ethnolo gists have focused most of their attention on describ ing the diverse habits and customs that exist in human societies and have laid little stress on tlfe role played by basic drives in shaping them. s For an excellent discussion of secondary drives see Miller and Dollard, 1941, pp. 54-68.

Malinowslj (1939) was perhaps the first notable

modem anthropologist to pay much heed to the im pact of basic drives on culture. He founded his func tional system on a series of drives which he called the "basic *needs* of man." In the sociological field a *simi1ar*'point of view was expressed by Sumner and Keller (1927), who founded their sociological system on a number of universal drives. More recently, largely from the stimulus of psychoanalysis and behavioristic psychology, the study of culture from the point of view of drives (primary and secondary) has received notable expression in tl1e works of-to mention a few

-Miller and Dollard (1941), Ford (1945), Whiting

(1941), Murdock (1945), Mead (1935), Benedict *r*

(1934), Linton (1945), Corer (1938), Du Bois (1944) . None of these, or other workers, however, has dealt with a society in which the drive of hunger is so constantly frustrated as to have become the dominant motivating force in shaping habit and custom. Siriano society seems, clearly, to be such a society.

From the data that have already been presented, especially in those sections dealing with the eco nomic aspects of the culture, it would seem, indeed, that the most crucial problem with which the Siriano have to deal is that of securing enough to eat, and the fact that they have been much less successful than most societies in solving their economic problems has doubtless elevated hunger to its pre-eminent role as a motivating force in the society. The reasons for this are doubtless numerous and varied: physiological, en vironmental, and cultural. An analysis of the data in dicates that in Siriano

society the following seem to be the principal factors that affect the quest for food and that result inthe strong motivating force of hunger.

I. Physiological factors.

A. Hunger drive.

B. Secondary drivesbased on hunger drive.9

1. Strong secondary drive or appetite for eating.

z. Satisfaction of prestige based primarily on hunger.

3. Sexual appetites to some extent based on hunger.

4. Aggression expressed in terms of food.

5. Anxieties center largely around satisfaction of hunger.

C. Sex drive mobilized principally through hunger.

1. Family founded on economic basis.

z. Extramarital sex partners seduced through rewards of food.

D. Fatigue drive.

I 1. Long,forced marches inquest of food.

J .2.. *Tree-cl*imbing to harvest fruits, to retrieve game.

3. Running through swamp and jung le in chase of quarry.

4. Burden carrying.

E. Pain drive.

1. Spines and thorns in body.

z. Accidents (f*a Uiog* from trees, etc.) .

3. Attacks by *a*nimals (jaguars, snakes, alligators, etc.).

4. Suffering from heat, cold, and rain.

II. Environmental factors.

A. Sparse supply of food.

B. Aleatory factors.10

1. High probability of non-success in food quest. c•. Climate unf avorable for preservation and storage of food.

III. Cultural factors.

A. Technological insufficiency.

1. Cumbersome weapons.

z. Lack of tools, traps, etc.

3. Sparse development of agriculture.

4. No methods of preserving and storing food.

9 These factors, of course, are also cultural.

10 These factors, like secondary drives, are also cultural.

Further examination of some of the above mentioned factors may perhaps better explain why it is that hunger has become such a strong motivation in Siriono society. In the first place, the supply of food, while sufficient for survival, is seldom abundant. Peo ple actually suffer frequently from food deprivation. As well as being sparse, the food supply is highly in secure; chance factors with respect to the food quest here play a much more significant role in aHecting culture and behavior than in most other societies. When a hunter sets out in search of game, there is a high probability that his hunt will be• unsuccessful or at least only partially rewarding. True, the forest con tains some foods, such as palm cabbage and nuts, that are available and abundant the year around, and others, such as certain wild fruits, that are relatively plentiful for about four months of the year, but these in themselves are not nutritive enough to sustain life for long periods of time. The society, furthermore, is not equipped with cultural techniques for dealing with its environment so as to offer surety of food sup ply. Agriculture is but little developed; weapons are cumbersome; tools are almost lacking; and food is neither stored nor preserved in any abundance or for any length of time.

Accompanying these frustrating conditions are others adverse to the satisfaction of the hunger drive, especially the fatiguing and painful aspects of the food quest. The hunter and gatherer must go in search of food at least every other day throughout the year. He must walk long distances-as many as twenty miles a day-in his quest for food. .He may be forced to run at top speed through almost impenetrable jungle and swamp to bag a single monkey or coati, and once having bagged his prize he may be forced to climb a tree to retrieve it or the arrow with which he shot it.

Game and forest products must always be carried back to camp-sometimes a long distance away. In walking and ninning through swamp and jungle the naked hunter is exposed to thorns, to spines, and to insect pests; he may fall from a tree (as he frequently does) while harvesting fruits or retrieving game; he is occa sionally exposed to attacks from jaguars, crocodiles, and poisonous snakes; h.e suffers intensely from heat, cold, and rain. At least 25 per cent of the time he re turns to camp empty-handed or with insufficient food completely to nourish his family and for which he may be chided by his relatives. In short, while the food quest is differentially rewarding because food for sur vival is always eventually obtained, it is also always punishing because of the fatigue and pain inevitably associated with hunting, fishing, and collecting food. Psychologically speaking, these are the conditions that give rise to the preoccupation of the Siriono with food problems, to their affective attitudes toward food, and to their strong secondary drives based on the drive of hunger. The anticipation of the intensely punishing aspects of the food quest-actual food dep rivation, possible non-success on the hunt, fatigue, pain, and other forms of punishment-tends to evoke strong anticipatory responses with respect to food. These anticipatory responses-for example, strong eat ing responses to weak hunger stimuli-are in effect secondary drives. For purposes of this discussion they may be regarded as appetite and anxiety responses.

Actually, psychologists are not yet agreed as to the diff erences between the secondary drives of appetite and *anxiet*y. A satisfactory definition of and a distinc tion between these two concepts, though potentially of great value in a systematic analysis of culture and human behavior, has yet to be developed. Recently staff members11 at the Institute of Human Rela tions, Yale University, have proposed the following definitions.

Appetite is a secondary drive whose motivating response is anticipatory and whose original response is a para sympathetic response which occurred just prior to or during the goal act of a given drive.

Anxiety is a secondary drive whose motivating re sponse is anticipatory and whose original response is a sympathetic response which occurred just prior to or during the goal act of a given drive.

In the above definitions, the distinction between appetite and *anxiet*y, although both are anticipatory responses, rests on the assumption that in the case of the former the original response arises in the para sympathetic nervous system, while in the case of the latter it arises in the sympathetic nervous system. This is essentially the position taken by Mowrer (1940), who has dealt at some length with the problem of anxiety. It is doubtful, however, whether this distinc tion is of much practical utility in the analysis of cul tural behavior. In the case of the Siriano data the important fact to consider is that there are strong an ticipatory responses toward food. Some of these may be purely appetitive responses, others anxiety re sponses, and still others a combination of both. These anticipatory responses result, moreover, not from a single factor, but from a combination of all the factors listed above.

Attention should be called to the fact that anticipa-

11These deflnitions were develon:by Dr. Irvin Child, Dr. John W. M. Whiting,and Dr. Cle S. Ford. They have not been published as yet. tory responses toward food in Siriano society may be due, in part at least, to the cori.B.icting factors that affect the quest for food. These confilcting factors seem to be much more pronounced among the Siri ano than among most other peoples. On the one *h*and, a man is strongly motivated (and eventually forced, of course) to go in search of food bepause of a mount ing hunger drive, a desire for prestige, or the need for a sexual partner. On the other hand, he is also strongly motivated to lie in his hammock and to postpone the search for food as long as possible, because of the painful, fatiguing, and otherwise punishing aspects of the food quest. Before a Siriono picks up his bows and arrows to go on a hunt he doubtless asks himself : "Should I or should I not go?" His stomach stimulates him to go; his relatives tell him to go; he may be motivated to leave by a desire to eat tapir, to

seduce a potential wife, to acquire or maintain status, or for any number of other reasons. But when he recaUs his last or an earlier hunt-an occasion when he came back empty-handed after having tramped all day th.rough jungle and swamp, when he was chided by his relatives for his lack of success or skill, and when he returned with his feet full of spines and thorns and his body covered with wood ticks and insect hites his ardor to leave is likely to be considerably damp ened. Under these conditions he is apt to try to get food first by some othex means and, if unsuccessful, even to lie down in his hammock for a while until the hunger drive, or the social pressure to go hunting, be comes unbearable. In any case, if there is food around, he is not likely to expose himself to the rigors of the jungle before it is all consumed, for if he departs un der these conditions he is certain to find when he re turns that the food has already been eaten by someone else. These conflicting factors are doubtless responsi ble for much of the behavior toward food.12

The evidence for strong appetitive and anxiety re-... sponses toward food in Siriono socie is *o*verwhe*l*min . Has preparation of food, lac of co recipes, absence o stan •e routines of eating, stea Bng off into the forest to eat, wolfing food, over eating, reluctance to share food, lack of food prefer: ences except on a quantitative *ba*s*is,* absence of ea:.= q°'uette and nfual with respect m food, *eating* when sick, eating when not hungry, excessive *q*uarreling over food, fantasies and dreams about food, in*s*ults in terms of food, etc. may all be *r*eg*a*rded as direct manif estations of the strength of the secondary driveof *em1fiU and ot fbe aoidety that centers aro*und the satisfaction of *h*unger. –

How do such afbTudes and behavior toward food arise and develop in the Siriono child? A glance at the data from the life cycle clearly indicates that the above-mentioned adult behavior toward food cannot be accounted for on the basis of the experiences of infancy and early childhood. The nursing infant is almost never deprived of food; whenever he cries his mother offers him the breast. He is greatly loved. He is exposed to almost no punishment except what he indirectly suffers from the rigors of the environment , but his parents do everything they can to protect him from cold south winds, from rain, and from insect pests. He can express aggression freely; he is not forced to walk or talk early; weaning is not a traumatic experience. In short, the infant is rarely punished or frustrated. Hence the conditions existing in

12 For | an excellent | discussion of | anxiety | and conflict see | Mowrer, | 1940 | | | | infancy are not favorable for giving rise to the food anxiety *m*ani*f*ested in adulthood.

After weaning, however, conditions change, and somewhat abruptly. However gradual parents try to make the transition from inf ancy to childhood, it is not always possible. Once the child has ceased to nurse, his food supply becomes uncertain; he begins to feel his first serious hunger pangs. His father may have obtained *n*othing on the hunt; he may have brought home only varieties of game which it is taboo for a child to eat; he may have secured only a small amount of game, not sufficient completely to nourish his family; rain or flood may have prevented him from making an expedition in quest of food. Consequently, after the child is weaned_, the response of crying which formerly always resulted in food is no longer always rewarded because there may be no food present at the moment. As the child grows older and more independent of his parents, the periods of actual food deprivation become more frequent and more intense. Younger siblings appear in the family and receive preferential treatment. Accompanying the pangs of hunger are the sufferings of fatigue and pain. The child is no longer carried, but must walk long distances with his parents in quest of food. No longer does he receive protection from cold south winds, from rain, and from insect pests. His feet become filled with spines. He suff ers from skin worms, scorpion bites, and lack of sleep.

These *a*re the conditions which provide the learnm• g s1 *a* on ea 1ng and an *tntewc* 1calistit anxiety about food arise ID d:Ie1

Sir1ono d'uld. Ihese set-Ondary drives deve1op *soob* after we*a*ning and rise in intensity as the child grows older and more independent of his parents . Consequently, by the time a youth reaches the age of twelve he is already manifesting most of the signs of adult behavior toward food. In general, he is aggressive in all matters that *p*ertain to food. He fights and quarrels for his share of food; he manif ests a strong reluctance to share food; he wolfs his food; he eats principally at night; during the day he may

steal off in the forest to eat; he eats when he is ill or not hungry; he lies about food; he even dreams about food. Indeed, if the Siriano had developed eschatological concepts, the afterworld would probably he a place where f ood, above all things, would be found in abundance and plenty.

The above-mentioned individual behavior may be regarded as a direct manif estation of hunger frustration and anxiety, produced by the factors already mentioned. These conditions also produce a number of indirect manifestations that are characteristic of the society as a whole. The sparse technology, the absence of art, the relatively simple social and political *o*rganization, the non-elaboration of religion and magic, the lack of games, the absence of folklore, the unconcern with intellectual and speculative matters, etc. can probably be attributed in large measure to preoccupation with food problems and to economic insecurity. Since most of a native's time must be spent on the quest for food (or resting from it), little is left over for the pursuit of other activities. IJ *w*ould

s em, indeed, that preoccupation with the f ood prob-: le m n other single factor, has operated to_ *prevent an elaboration o most o* er aspects o Siriono cul*t*ure.

•secondly) the hunger drive exhibits a pronounced d*9mjpance over aU o*ther ptiroaQ(dtixes, ex@pt possibly that of fatigue. The Siriono, of course, do not suffer from lack of air or water, so that such needs can be largely discounted as strong motivating forces in the society. But the dominance of hunger over sex is *u*nmistakable. While the drive of sex is seldom frustrated to any great extent, it is mobilized largely through the drive of hunger. The family is founded on an economic basis. Sex and marital partners are secured by providing food and economic security. Extramarital sex partnt::rs are seduced primarily through rewards of food. The sexual preference for fat women over lean women and for food-gathering women over skilled potters or hammock makers suggests that even sexual appetites are based primarily on the drive of hunger. This is clearly observable among the women, who prefer good hunters to all other sex or marital partners.

Actually when food is scarce there is little expression of sex. On one expedition which I made into the forest with the Siriono for a period of about six weeks, I observed that my informants indulged in little or no sexual activity during periods of food deprivation but engaged in sexual orgies following periods of food satiation. This, coupled with other data, leads to the conclusion that periods of food deprivation are generally accompanied by sexual abstinence while periads of food satiation are followed by sexual excesses. Such behavior seems clearly to indicate the dominance of hunger over sex in Siriono society.

While the piohlem of the relationship between primary drives needs much further investigation, both in our own and in other societies, it seems as if Siriono society compensates its members for suffering from intense hunger frustration by allowing them great license in the realm of sex. I frequently observed that children were shown greater love when they were suffering from hunger, fatigue, or pain than at other times. With young children love was constantly used as a *p*a1liative. So, too, in adulthood sex freedom may compensate for hunger frustration. Cross-cultural checking, of course, is badly needed here.

Prestige, too, though not a prominent secondary drive, is based primarily on a person,s ability as a food getter. Chiefs are always good hunters. Sexual appetites are also founded to some extent on the drive of hunger. Finally, the most aggressive behavior is expressed in terms of and over questions of food, and anxieties seem to center principally around the satisfaction of hunger.

Indeed, if the psychoanalysts are correct in their interpretations of behavior in our own society, the situation found among the Siriono is in many respects reverse. While the strongest secondary drives and anxieties in our own society arise from sex frustration, among the Siriono they may arise from hunger frustration, and while food often compensates for sex deprivation in our own society, among the Siriono love appears frequently to sel'Ve as a compensation for hunger. Hence it would seem unsafe to generalize the findings of psychoanalysis, based on data from our own society, to other societies where drive conditions are not comparable.

The treatment of the sick and tl1e aged in Siriono society appears indirectly to reflect hunger frustration. When a person becomes too old or too sick to hunt, to gather food, to bear children, or

otherwise to take an active role in the society, he becomes a liability. *H* treated indulgently, the sick and aged might prove such a burden as actually to threaten the survival of the group. Consequently, people who are extremely ill or decrepit and whose period of usefulness is over are abandoned to die.

It might seem strange that the Siriono do not follow a similar practice toward deformed inf ants. Attention has ahead been called to *t*he fact that some

1 er cent ,.f n tive infants are eet. Considering that only about one in five such infants reaches adulthood, marries, and raises a family, it is rather surprising that the Siriono do not kill or abandon them when they are born. But such is not the case. During infancy clubfooted children are treated with as much love and respect as normal children. There are doubtless several reasons for this. In the first place, children enjoy a favored status in Siriono *so*ciety. They are love*d* to excess and *o*verinduigently treated. While a Siriono thinks nothing of abandoning an aged or sick adult, he would look with horror and disgust at anyone who abandoned or killed a child. In the second place, deformed infants, unlike the dependent aged, do not threaten the food supply of others. They nurse until they are about three years of age, and even as young children they eat much less than an aged adult. Finally, there is at least a

20 per cent chance that a deformed infant will grow up to be a useful member of society, while it is a certainty that an aged dependent will always remain a burden.

It is probably true that magical practice in Siriono society is likewise largely a function of hunger frustration. While the data from this aspect of culture are sparse, they relate principally to the quest for food. Attention has already been called to the fact that hunters do not eat the flesh of certain animals that they themselves kill for fear that these a*n*imals

,vill not return to be hunted by them. They also hang up the skulls of the animals and the feathers of the birds which they bag for the same reason. They smear themselves and their arrows with uruku, glue feathers into their hair, etc. to attract game. Men let blood to make themselves more valiant hunters; women, to make themselves more valiant collectors. Such magical behavior seems largely to be a reflection of the disparity between the constantly recurring hunger drive and the means of satisfying that drive. Lacking realistic techniques for ensuring his food supply, the native resorts to magical practices to secure it Food magic thus seems to develop primarily as a consequence of hunger frustration.

It is significant that there is almost a complete lack of sex magic among the Siriono. The reason for this doubtless lies in the fact that the sex drive, unlike the hunger drive, is seldom frustrated to any great extent. The Indians rarely, if ever, lack for sexual partners. Whenever the sex drive is up, there is almost always an available sex partner willing to reduce it. Hence the native feels no need to rely on magical practice to lessen his sexual tensions. In fact, sex anxiety seems to be remarkably low in Siriono society. Such manifestations as excessive indulgence, continence, or sex dreams and fantasies are rarely encountered. True, sexual excesses seem to accompany periods of food satiation and sexual abstinence periods of food deprivation, but the reason for this is doubtless because hunger domina tes sex.

The relative cohesiveness of the Siriano kin groups, the nuclear and extended families, as compared with the local group or band, seems also to stem principally from the condition of hunger frustration. While it is true tl1at in most primitive societies kin groups are more closely knit than other social groups, the reasons for this may vary widely from one society to another. The important fact to consider here is that, among the Siriono famil so*lidari* seems to s rin primarily from a lack o economic securicy. T e sup*p*ly of food is often not sufficient for distribution outside the nuclear family and almost never sufficient for distribution outside the extended family. Under conditions of this kind the local group or band becomes relatively unimportant as a social group. Except for supplying sex and marital partners, it has few functions. Practically all other functions are perf ormed by or within the family. The family embodies almost the totality of culture. We may thus conclude that in societies existing under conditions similar to those feund among the Siriono, kin groups will perform a larger number of significant functions than other internal groupings.

Finally, the personality of the adult Siriano is itseH a logical consequence of a lifelong struggle to secure enough to eat. His early education in the *f*amily, his later contacts with his fellow tribesmen,

and his final exposure to a harsh and rigorous environment all teach him that to survive he must be aggressive,individualistic, and unco-operative. These are the outstanding personality traits of the adult Siriano. *T*he strong dependency relationships formed in infancy and early chlldhood do not persist. Gradually but prematurely they are displaced by traits of independence, so *t*hat w en an n an as reac e a u oo e a s an m •vi u sm an apa y toward his fellows that is. r*e*marka *ble.*'Ihe apparent unconcern of one individual for anothr-even within the family-never ceased to amaze me while I was living with the Siriano. Frequently men would depart for the hunt alone-without so much as a goodbye-and remain away from the band for weeks at a time without any concern on the part of their fellow tribesmen or even their wives. On one occasion Ndekai, his wife, and their clubfooted son stayed away from the band for six weeks, wandering from one place to another in search of food. When they left they told no one about their plans, and while they were gone, no one showed the least concern about them. After returning from such a long absence, Ndekai was not even greeted by his tribesmen, although they eagerly tried to secure some of the meat he brought back with him. Such experiences indicate that were it not for the fact that the band supplies sex and marital partners, the family could be an independent social group among the Siriono.

Unconcem with one's fellows is manifested on every hand . On one occasion Ekwataia-a cripple who, although he was not married, had made an adjustment to life-went hunting. On his return darkness overcame him about five hundred yards from camp. The night was black as ink, and Ekwataia lost his way. He began to call for help-for someone to bring him fire or to guide him into camp by calls. No one paid heed to his requests, although by this time he was but a few hundred yards from camp. After about haH an hour, his cries ceased, and his sister, Seaci, said, "A jaguar probably got him." When Ekwataia returned the f ollowing morning, he told me that he had spent the night sitting on the branch of a tree to avoid being eaten by jaguars. His sister, however, although she manif ested a singular unconcern for his survival the rught before, complained bitterly that he gave her such a small part of his catch.

Such traits of character as have just been mentioned in no way indicate that the average Siriano is maladjusted and unstable. On the contrary, he seems to have made a relatively stable adjustment to harsh environment and to a culture that offers him little reward. The Siriano data would indicate, however, that man in the raw state of nature-and the Siriono may be regarded as the quintessence of such a man

-is anything but co-oprative, generous, submissive, or kind.

By way of recapitulation and conclusion a number of generalizations are suggested for further refinement and investigation in other societies where conditions of food insecurity and hunger frustration are similar to those found among the Siriono.

{ 1. Such societies will be characterized by a general backwardnes s of culture. A concern with food problems will so dominate the society that other

/ aspects of its culture will be little developed.

2. The primary drive of hunger will dominate all other basic drives.

3. The sex drive will be mobilized principally through the drive of hunger.

4. The food quest will be painful and fatiguing.

5. The strongest secondary drives will be those based on the primary drive of hunger.

6. Appetites for eating will be strong.

7. Anxieties about food will be intense.

8. Aggression will be expressed largely in terms of food; if not, such aggression will be so severely punished that it will be almost entirely repressed.

9. Prestige will be gained and status maintained largely by food-getting activities.

10. Positions of power and authority will be occupied by individuals who are the best providers of food.

11. Etiquette and ritual with respect to food will be either lacking or elaborated to a pronounced degree. 12. Fantasies and dr*e*ams about food will be common; if not, the subject of food will be so repressed that food will not appear as a symbol indreams.

13. Magical practice will be devoted principally to increasing and ensuring the supply of food.

14. If eschatological concepts have been developed, the afterworld will be a place where food is found in abundance and plenty.

15. The most rewarding behavior in the society will be that which reinforces the hunger drive.

16. There will be a tendency to kill, abandon, neglect, or otherwise dispose of the aged, the deformed young, and the extremely ill. If not, such dependents will occupy a favored status inthe society.

17. Kin groups will be more cohesive than all other social groups and will perform a greater number of significant functions than local or other internal social groups.

Appendix: ADVENTURES IN CULTURE CHANGE

TonAY there are few aboriginal cultures of the world which have not been prof oundly affected by the influences of Western society. Especially the effects of the modem technological revolution have been deeply felt in. the most remote comers of the world. Because of this, modem anthropologists, concerned with problems of culture change, have been afforded (or they have sought) few opportunities to observe at first hand situations in which there has previously been little or no contact between an isolated aboriginal group and representatives of the Western world. Here it is proposed to discuss an instance in which just such an opportunity arose.

During the course of an ethnological investigation among the Siriono Indians of eastern Bolivia in 194142 I, in company with a Bolivian companion and a number of semi-acculturated Siriono, encountered in August of 1942, after wandering some fifteen days through the swamp jungles southeast of the village El Carmen, a band of Siriono who had had so little contact with the outside world that about the only items of estem technology found among them were two

Reprinted from *M ethod and Perspectiveln Anthropolo gy,* Robert F. Spencer (ed.) The University of Minnesota Press, Minneapolis, Minnesota (1954), by permission of the publisher. machetes worn to the size of pocket knives.1 Having devoted several months previously to a study of the native language and culture at a Bolivian Government Indian School called Casarabe-situated about thirty miles east of Trinidad, capital of the Department of the Beni-and having adfusted myself to the seminomadic conditions of forest life, I followed these Indians around for a while, finally settling with them on the banks of the Bio Blanco at a site which we founded and named Tibaera, the Indian word for a palm tree which grew in great abundance there. It was while I was in residence at Tibaera, from October 1942 to April 1943, that I was presented with favorable opportunities to initiate a number of ”experiments” in culture change which brief subsequent visits to the area enabled me to check on from time to time.2 This paper, therefore, is devoted to a consideration of a few of the changes introduced at that time and of some of the effects resulting therefrom.

1These machetes, in so far as we were able to determine later, had been acquired many years earlier by robbing rubber tappers who worked for an English firm which found it uneconomic to continue operations in this area after 19.28.

My Bolivian companion, a faithful one, was Luis Silva Sanchez, who at the time this study was made was employed as an explorer for a Bolivian government indigenous school located at Casarabe, Beni, Bolivia,

I am grateful to the Soci Science Research Council, which sponsored my work among the Siriono.

2 These are not to be regarded as ”experiments” •in the true scientific sense. For this reason I have employed the more aesthetic term ”adventures”in the title of the paper. At the time this work was done I had much less sophistication and *t*raining in experimental method than I now have and, besides, my •central problem dictated use of the observational method. While some attempt was made to manipulate subjects, I realize that my lack of controls does not allow me to dignify my ventures by the scientific term ”experiment.”

Under aborig!n,al condjtiop.s, the Siciopo ar.e a seminomadic people who, in terms of technolo • at least, may be c assi e among . e most handica ed eo*E e o e wo*r . ey ’ve with a bare minimum of what the late Professor Malinowski called ”material apparatus.” In fact, the most effective tools with which they wrest but a meager living from their environment consist of a cumbersome bow and arrow and a crude digging stick, the .former being used exclusively by men and the latter principally by women. While they practice agriculture-small amounts of maize, manioc, camotes, and tobacco are planted in natural clearings in the forest-they live principally by h*W*ltingt _ *$shi* and co*ll*ecting. , aving ne1 er stone nor steel tools*l*itt*le*stone is found in the environment,-they are unable to clear any large amounts of land for agriculture; and because they occupy a relatively harsh environment, much. of which is inundated for about four or five months of the rainy season, from December to May, the major problem with which they have to contend is that of supplying sufficient food for survival. Since the solution of this problem is impeded in part, at least, by a technological insufficiency, the setting struck me as an excellent one

in which to initiate technological change and observe its effect on the native economy and othet aspects of culture.

It should be made clear at the.outset, however, that on first contact with this band of Siriono I was in no position to assume the role of an innovator. We were traveling as light as possible at the time, and besides, my central problem required thatImake observations on the native culture as it functioned under aboriginal conditions. Thus it was only after such observations had been made and the band had voluntarily returned with us to Tibaera (we had previously established ourselves there with remnants of another group of Siriono who had escaped from bondage8 several months before) that I was able to initiate what attempts I made at innovation. It should be stated for the record, however, that my Bolivian companion and I had taken with us a few basic items of Western technology upon which our own survival depended. These included a rifle and shotgun, a numher of machetes, fishhooks, hammocks, mosquito nets, several changes of clothing, and a few aluminum cooking utensils. In addition, I carried a camera, notebooks, and a few common remedies such as quinine, aspirin, and injections of emetine hydrochloride. The only supplies of food we carried with us were salt, sugar, and coffee. Unfortunately our supplies of sugar and salt were accidentally lost during the first few days of our trip so that about all we had to remind us of our former diet during a sojourn of about a month was coffee, of which we had taken an abundant supply and for which the Indians had not yet acquired an appetite.

I mention these matters in passing to indicate that at the time of first contact and for *a*bout two months thereafter our in011nce QP tbe iiuna l,fjl m!nlm..I;: fo . we *needed w*hat supplies we possessed to take care o 01*1rse)ves* Nevertheless, the desire on *t*he part of the-

Indians for a superior technology was immediately felt. We had been with the band for little more than a few minutes before we were bombarded with requests for tools, especially machetes. These we did not have, but I had brought with me several boxes of cots It was the general practice of mestizo farmers in this area to lure Indian groups in from the forest on the promise of food and tools and then force them to wor1c in their fields. Through threats and punishmen ts many were thus kept in servitude. ton thread,*4* which were distributed to the Indians by way of compensation. It was at this time that the idea of future experiment first presented itself to me.

Shortly after returning to Tibaera, therefore (I had established by this time that the Siriono under aboriginal conditions do face a life of extreme impoverishment), I made a journey of several days down the Rio Blanco by canoe in quest of some basic items of technology to introduce. I ,*i*mited by matters of budget, I however, as is so often the case in field work, I was only able to afford to purchase a few machetes and axes together with a small supply of such seeds as rice and watermelon, which the Siriono did not then plant under aboriginal conditions. These, together with trade goods and food, I brought back with me to Tibaera. The machetes and axes, of which I had only six each, I presented to members of the band who I thought were the most influential and with whom I had had greatest contact. They were distributed in this manner because I felt that my own residence among the Siriono depended on maintaining rapport with at least the persons of most prestige in the group, particularly the chief and some of his immediate kinsmen. In order to temper the disappointment (in some cases, hostility) of those who did not receive tools, I made gifts to them of such trade goods *a*s *beads* laces, cloth, thread, pocket 1ves, an salt. Since it was *no*t yet *t*he season for agticulture, the seeds were withheld for future planting.

T)le iotroduction of these *few tools alone rep,J* rsented a drastic change in the technological system of the peop! who •received them; fh progressed

4 This is an excellent trade item in the Tropical Forest Area of South America, where fine cotton thread is highly prized for arrow-making. overnight from a technology of the pre-Stone Age to one of the Iron Age. As might be expected, of course, repercussions of this change were *i*mmediately apparent, especially on the economic life. Whereas formerly, for example, a person spent as much as half a day in extracting a palm cabbage, a Siriono staple, with a digging stick, he could remove more than a half dozen in a similar period with an axe. For the people possessing tools, therefore, the production of palm heart ceased to be a serious economic problem. To take another example, the Siriono are extremely fond

of wild honey, the only sweet they possess. They seldom become satiated with it, however, for lack of an efficient means of extracting it. Wild bees generally build their hives in dead, hollow trees still standing in the forest, and in order to extract the honey the hole through which the bees enter the hive must be enlarged sufficiently to permit the entrance of the hand. Under aboriginal conditions firebrands and digging sticks are employed for this purpose, but often an entire day of labor is rewarded by only a few handfuls of honey. Actually, by aboriginal methods but a small

•proportion of the exploitable wild honey is removed from the environm,ent each year. By using an axe, however, a hive of wild honey could be removed-and much more efficiently-in less than an hour's time. Since the introduction of axes corresponded with the season for gathering wild honey, the procluction of this f ood also increased enormously.

The same may be said with respect to most economic activities. Wild fruits were more easily harvested, the inaccessible ones by cutting down the trees; wood for bows and arrows and housebuilding was more readily extracted; slain animals were more rapidly cut: up; mobility through swamp and jungle was greatly increased; wooden utensils and tools were better and more rapidly constructed. Inshort, the productive capacity of the families receiving tools more than doubled at once.

With respect to the social effects of these innovations, only a few remarks can be made. In general, the economic benefits were not enjoyed by all members of the band. Native ideas of personal property and patterns of food distribution were, at first at least, rigidly adhered to. Among the Siriono feelings of food deprivation are extremely high, and they are reluctant to share products outside the extended family. Actually, the machetes and axes were jealously guarded and the fruits of their production confined principally to the families who possessed them. Because of this, complaints were bitter, and demands for tools-demands which I could not fulfill-were constant.

Another consequence of the limited introduction of more efficient tools was a noticeable rise in in-group hostility. One of the first effects of the increas duction o hone , or exam e was an increase in e supp y o native beer and in duration o f e uent e ressi ression since drinking feasts are the principal occasions when both ver and physical aggression are expressed among the men. Under abori*g*inal conditions these drinking feasts seldom lead to long-lasting hostilities because the supply of native beer is Jimited by the arduous labor involved in the extraction of honey. But with improved techniques it was possible to hold these feasts with greater frequency and greater intensity. On one occasion, in fact-and this was a direct result of the increased production of native beer-the aggressions expressed at a drinking bout of considerable intensity {esulted in such a strong hostility among the members of two extended families that the unity of the band itself was threatened. Needless to say, this was an effect which I had not anticipated at the time the tools were introduced.

P haps the most significant consequence of the in-

*tro**duction* e *oo s o*wever, was that it aved

•t e way for an expansion of agriculture-and htn.ce an ensuring of the food supply.:...hitherto unknown among

*t*he *.Si*riano. Attempts to improve agricultural methods and to introduce new plants met with a variety of responses. I had originally suggested to the men who received steel tools that they might most fruitfully employ them to intensify agriculture. But since it was the dry season, the best one for hunting and fishing, 3 of the men were away from camp so much of the time that little heed was paid to my advice. With another 3, however, I was able to establish workable relations. These were Eantandu, a chief, and two of his brothers-in-law, Enfa and Mbiku. Changes in agriculture were initiated largely thraough them. The pat'" tern followed was that of disrupting as little as possible native agricultural practices, such as that of each man planting for himself,5 and of fitting the changes as nearly as possible into the existing culture pattern. The procedure consisted first in convincing each of the men to clear a sizable plot of good land for himself . When this was done and the brush was thoroughly dried, the plots were burned over. Then shortly after the first rains came in late Novembr each man was encouraged to seed his land with maize, manioc, and other native products. For lack of better tools, this IS

My Bolivian companion and I made attempts at co-operative gardening witll members of both bands at Tibaera but with little effect, for individualism runs high among the Siriono. was don.e largely with the digging stick; however, the methods of planting were considerably improved. In addition, each man was asked to reserve a piece of land for dry rice fanning, which my Bolivian companion and I introduced at Tibaera. Finally, Eantandu alone was encouraged to seed a small patch of water.., melon.

All of the agricultural labor connected with the experiment was perf ormed by the men themselves or by their wives. But not voluntarily, nor without reward. Ofte.n during the course of the work, I or my Bolivian companion had to supply the families with meat, which we could obtain only by hunting and fishing ourselves, sometimes at night; otherwise they would have spent almost all of their days in the forest, and our attempts would doubtless have failed. Then too, some such encouragement was necessary because of a logical suspicion on the part of the Siriono that we intended to profit by the results of their labor, as had been the case in all previous instances of contact }Vith whites.

Since the season was favorable and the land was new, the crops thrived far beyond expectations. After being weeded and hoed a number of times (again largely with digging sticks), the resulting harvest was

-to the Siriono at least-prodigious. Suddenly Eantandu, E.nfa, and Mbiku found th Jves with more food than they had ever possessecf 'Defore at one time in their lives. From this small patch alone, Eantandu harvested more than a hundred watermelons.. These he ate in such quantity that on two occasions he became violently ill with indigestion. During a week or so of harvest, Eantandu, Enf a, and Mbiku laid away what might normally be regarded as a six months' *sup* ply of rice and maize. Others, planting by aboriginal methods, had harvested much smaller yields of maize for themselves, supplies which were almost exhausted by the time I left the band a month later. During this month Eantandu, Enia, and MbHcu had only occasionally shared the results of their bountiful harvest and then only begrudgingly in exchange for meat or other products they happened to be in need of at the moment. Everyone, however, had managed at least to taste rice and watermelons and to acquire seeds which they were reserving for later planting. Two years later the Siriono to a man were growing these crops on the banks of Lago Huachi, some twenty miles east of Tibaera. In the meantime they had acquired more steel tools through trade with the whites, and the nomadic pattern of life had been greatly reduced.6

Hand in hand with experiments in agriculture, attempts were made to introduce some domestic animals. These were made through one man alone, Chief Eantandu. Under aboriginal conditions the Siriono possess no domestic animals, not even the dog. This is not surprising; their semi-nomadic pattern of life is hardly consistent with animal husbandry. Even the dog would be of little use to them in hunting in a tangled jung le where the meat supply is mostly shot in trees and where it is not sufficient to feed even themselves, to sa'y. nothing of others. Moreover, the

Siriono respond,.ed with great fear to the dog. Since the footprint oi"'a dog is very similar to that of a jaguar, the two animals were equated under one term (*yakwa)* and the suspicions and fears of one were generalized to include the other. Consequently Eantandu expressed grave doubts as to the utility of the dog, which I attempted to introduce. Actually his

6 This was part due to a wild-rubber boom which hit this area after the,' United States entered World War II.

.Jf suspicions were well founded. Even though well trained in some types of hunting, the dog proved to be a burden to him. He scared more game away than he hunted; he robbed food from camp; he frightened women and children; he even bit a child or two. In short, he was not adaptable to the existing culture pattern. This was brought home to me on many occasions but especially once when I was absent from camp for about five days. I returned to find the dog almost dead of starvation. Consequently, on leaving the Siriono, I left the mongrel with my Bolivian companion, and on my visit of a couple of years later found that tl1e Indians were still doing nicely without the animal. Attempts to introduce domestic fowl were somewhat more successful. Returning from a trip down the river, I brought with me several roosters and a number of hens which I had planned to use as a provision for meat and eggs for myself and as an experiment in culture change among the Siriono. With this latter

idea in mind, I presented a pair of hens and a rooster to Eantandu with an explanation of the benefits he might expect providing he took proper care of his brood. In this case it was not even necessary for him to feed and water the chickens since there was plenty of food around camp in the form of insects, rotten wild fruits, grubs, and worms, and the supply of water in the river was unlimited. In spite of this, the first attempt failed. Within three days.af ter receiving the fowls, Eantandu, feeling the pinch.!.l.. m hunting, butchered them. He explainedto•• me th–t his wives-he had two at this time-had nrlim to do so because his children were hungry.. less

I gave himno more at the moment.

Meanwhile I had a number of hens setting myself which, within the expected time, l1atched out more than twenty chicks. While they were growing to maturity-we had constructed a rude chicken house of bamboo to shelter the brood7-Eantandu began to regret his previous lack of foresight and asked me if I would give him a few more hens and a rooster to begin the experiment anew. This Iagreed to do, but only after he had constru cted a chicken house and after he had promised to take good care of his chickens. On this occasion the experiment produ ced dilierent results. Within five months his flock had grown to the size of my own, and he was able to enjoy the fruits of their production whenever pickings in the forest were slim. Up to this time, however, his good fortune had been shared with no one.

After leaving Tibaera in April 1943, I did not see Eantandu again for more than two years. During the interim one of his wives had been killed by a falling tree, and the band had undergone numerous unpleasant encounters with whites. The pattern of chickenraising, however, still persisted with Eantandu and had by this time diffused to three or four of his kinsmen as well

Another item of Western technolo*g*y which served as the basis for experiment while I was living among the Siriano was the shotgun. Although no attempt was made by me to introduce the use of firearms to the Indians generally, this weapon did serve as a means of confirming a hypothesis as to the relation between prestige d hunting in Siriano society. While living with_J!ie In iil the forest and at Tibaera, I was daily ed, of course, by the importance of hunting and f o-\\Ioducin g activities. I had also observed that the men wi\o)iunted the most game were gener-

*1*This is necessary in the jungle to protect the fowl from jaguars and vampire bats, which are very abundant in this area. ally the most respected. But in no way were these observations more neatly confirmed than in an experimental situation which arose while living at Tibaera. Among the Indians living there was a young man named Enia, who was regarded by everyone as a poor hunter. Part of the reason for this was that he had resided on a Bolivian *estancia* at an age when he would normally have been acquiring the techniques of hunting with the bow and arrow had he been living under aboriginal conditions. As an adult he rejoined his band and married the sister of the chief . But he had never been able to develop his skill in hunting, although he made every effort to do so. Actually, when I first knew him, he was very unhappy about his lack of hunting ability, for he was being constantly insulted at drinking feasts and was almost daily ridiculed by his wife for returning from the forest emptyhanded. Once he had possessed two wives, one of whom he lost. His brother-in-law, the chief, made no bones about telling me (and Ema) that he was not much good.

This situation struck me as an excellent one in which to introduce a more efficient technology. Having firearms myseH, I began to take Ema with me on the hunt and gradually taught him the use of the shotgun, which he soon learned to manipulate very well by himseH. As a result of this, his meat production jumped enormously and his pres.tige began to rise. In addition to this he was one of the participants in the successful agricultural experiment, so that when I left the band he was enjoying exceptionally high status, as exemplified by the fact that he had acquired a *se<:;...,* ond wife and was insulting others at drinking fealffS instead of being insulted by them. When I left the band, taking the shotgun with me, I feared for the status of Enf a, but on a visit by plane to Lago Huachi, on the banks of which remnants of his band of Siriono were camping a couple of years later, I found that he had again latched *h*imself onto "white" civilization and was working on a plantation of wild rubber, apparently doing quite well. What has happened to him since, I do not know.

After the war, however, the working of wild rubber became a losing game. The plantation probably fell into disrepair. In any case, the Indians left. Recent letters8 indicate that they are now living with my former Bolivian companion, Silva-by whom they are probably being exploited-about half way between the missions of Guarayos and the village of El Carmen. For the most part they abandoned their old way of life, shifting from a largely nomadic to a largely set• tled existence based on agriculture. Today I am frequently disturbed by the fact that I had a hand in initiating some of the changes which probably ultimately overwhelmed them and over which neither I nor they had control. Indeed, when I contemplate what I did, I am not infrequently filled with strong feelings of guilt. Maybe they should have been left as they were. s From Don Rene Rousseau of Baures, Beni, Bolivia.

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