

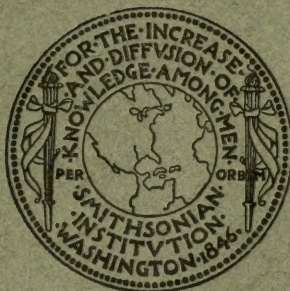
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BULLETIN 134

THE NATIVE TRIBES OF
EASTERN BOLIVIA AND WESTERN
MATTO GROSSO

By
ALFRED MÉTRAUX

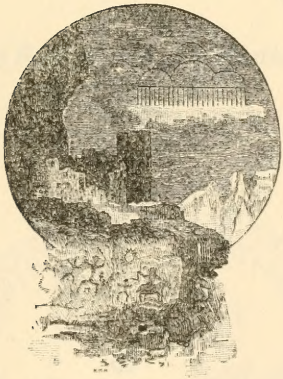


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MATTO GROSSO

By
ALFRED MÉTRAUX



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SMITHSONIAN INSTITUTION
DEPARTMENT OF ZOOLOGY
WASHINGTON, D. C.

THE VALUE OF
BASTARD ORANGE
IN THE
SOUTH

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WASHINGTON, D. C.

LETTER OF TRANSMITTAL

SMITHSONIAN INSTITUTION,
BUREAU OF AMERICAN ETHNOLOGY,
Washington, D. C., June 1, 1941.

SIR: I have the honor to transmit herewith a manuscript entitled "The Native Tribes of Eastern Bolivia and Western Matto Grosso," by Alfred Métraux, and to recommend that it be published as a bulletin of the Bureau of American Ethnology.

Very respectfully yours,

M. W. STIRLING, *Chief.*

DR. C. G. ABBOT,

Secretary of the Smithsonian Institution.

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THE NATIVE TRIBES OF EASTERN BOLIVIA AND WESTERN MATTO GROSSO

By ALFRED MÉTRAUX

INTRODUCTION

While reviewing all available anthropological literature on the native tribes of eastern Bolivia and western Matto Grosso for a summary article for the Handbook of South American Indians, which is being prepared for the Smithsonian Institution, I became aware that the extent of the data on these tribes would exceed the possible limits of the Handbook article. As much of the literature is inaccessible to research workers, several of the main sources being bibliographical rarities that are obtainable only in a few libraries, such as the Library of Yale University or the Library of Congress, and as the material had been assembled while preparing the summary for the Handbook, it was obvious that it would be of great value to South American ethnology to condense in a single monograph everything which has been written on these Indians from the sixteenth century to the present day. Such a compilation is justified by the importance of the region and by the difficulty which anyone not having access to a large library would have in obtaining an idea of the ethnography of the area.

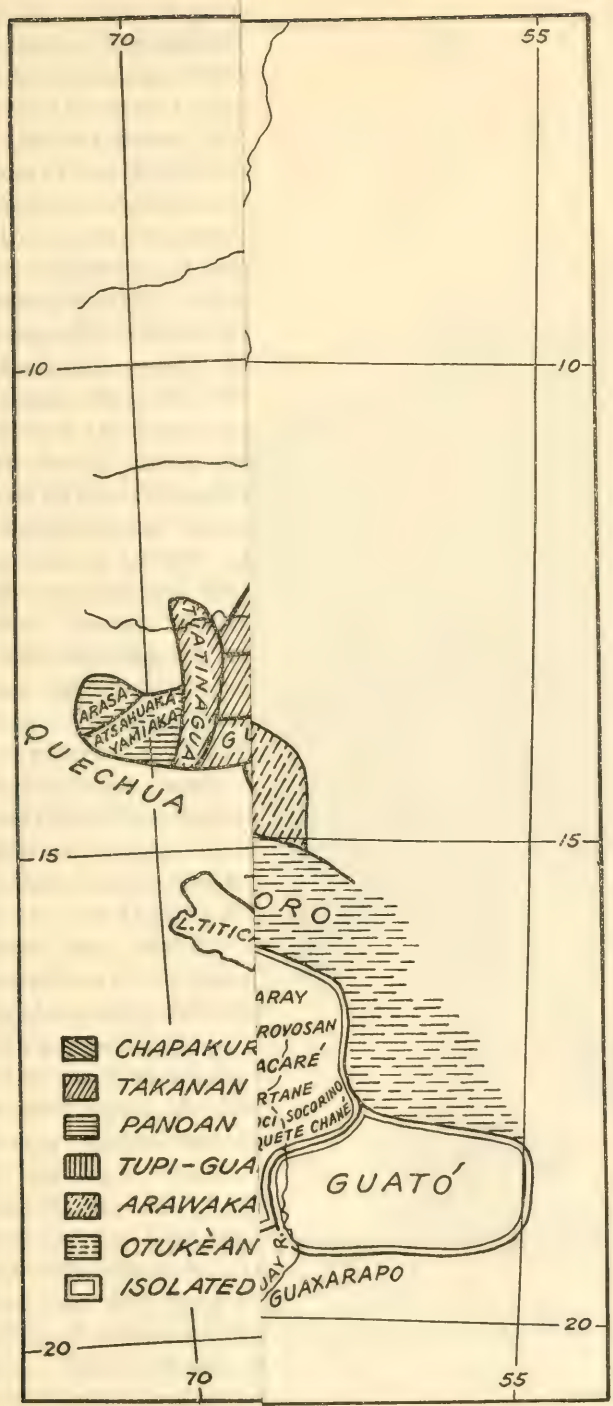
For more than a century eastern Bolivia was the mythical "Tierra Rica" or "Eldorado" of which the Spanish conquerors dreamed. Today it may still be the Eldorado of anthropologists. Like aboriginal California, the region is peculiar in possessing an unusually large number of linguistic stocks. Within an area roughly bounded by the Cordillera, the Paraguay River, the Gran Chaco, and the upper Madeira River, we find the following linguistic groups: *Tupí-Guaraní*, *Arawakan*, *Cariban*, *Takanan*, *Panoan*, *Chapakuran*, *Itonaman*, *Kayuvavan*, *Mosetenean*, *Lekoan*, *Yurakarcan*, *Chiquitoan*, *Otukèan*, as well as several languages of the upper Guaporé River that are not yet classified, such as *Huari*, *Guaratägaja*, *Amniapä*, etc. None of these languages has been recorded by a trained linguist; some are known only through short word lists.

In addition to the multiplicity of tribes, the varying lengths of the period of White contact with these peoples should make eastern Bolivia a land of promise for anthropological studies in acculturation. Some of the Indians came in touch with Spaniards during the first years of the conquest; many were subjected for more than 70 years to Jesuit rule and influence; some tribes did not have any contact with the Whites until the rubber boom; others even maintain their independence today and are among the few natives of South America who still live as they did before the arrival of the Whites. In some cases, certain individuals in a tribe have remained culturally unaffected by European customs while some families have been "civilized" for 2 centuries or longer. The region, therefore, offers an excellent opportunity for a study of culture change.

Eastern Bolivia presents the paradox so common in South America, of an area about which there is a considerable literature and which has been described by travelers and scientists of great merit, but whose native inhabitants have been ignored or described only in the most summary fashion. It is somewhat ironical that although D'Orbigny established his famous classification of South American Indians on the basis of the physical types, languages, and even culture of the eastern Bolivian Indians, the ethnological data which can be obtained from his works are few and superficial. For several years Erland Nordenskiöld made eastern Bolivia his favorite field of study and we owe him much. But, although he visited many tribes, his chief interest was to collect as many museum specimens as possible so that his stay in each was so short that he has given us only sketchy descriptions of their respective cultures. The last explorer of the region, E. Heinrich Snethlage, died before he could publish his scientific observations; his travel book contains only meager data. Even the Jesuits, who have left us a remarkably complete picture of native life in the Chaco, do not fulfill expectations in this area. The best source book on the Indians of eastern Bolivia, the "*Descriptio provinciae moxitarum in regno peruano*," by Eder (1791), may be consulted with profit only for certain technological and economic activities. There is, of course, much worth-while information in the early documents and in the accounts of modern travelers, but a coherent and complete picture of any community does not exist. Ethnologically, therefore, eastern Bolivia is still a virgin land which awaits its anthropologist.

The scanty information on the ethnology of eastern Bolivia makes it almost impossible at present to define its cultural subdivisions or to relate it to other cultural areas. Nordenskiöld (1924 b, pp. 231-233) has made much of the presence or absence of certain traits in the culture of tribes living within that area, but the elements selected to establish such contrasts are so unimportant that they do not destroy

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Schematic arrangement of groups; 2, Kovareka; 3, Koraveka.



FIGURE 1.—MAP OF EASTERN BOLIVIA AND WESTERN MATTO GROSSO.

Schematic arrangement of main tribes according to linguistic affiliations. The names of three tribes are represented by figures as follows: 1, San Simonianos; 2, Kovareka; 3, Koraveka.

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the impression of great uniformity in the lowlands of Bolivia. Furthermore, Nordenskiöld's collections were not always complete and the tribes among which he stayed were quite often decadent. On the whole, the several cultures of eastern Bolivia are basically Amazonian or tropical forest, with strong influences from the Andes. The Indians of the tropical valleys and plains of eastern Bolivia had a relationship to Andean civilization that was similar to that of the natives of the jungles of eastern Peru and Ecuador. Influence from the mountain civilization is obvious at first glance in the dress of most of the eastern Bolivian Indians—the uncu or tunic, which is typical of the "reasonable people" of the west; but it must be added that missionaries contributed greatly in spreading the use of this garment. Other elements borrowed from the Highlands are less prominent; we may list here the spear thrower, the sling, and perhaps the bola, which were found among the *Mojo*. Wooden spoons and trays, which are made by the tribes along the *Inca* border, are also *Quechua* or *Aymara* in origin or may be simply post-European. More interesting are the similarities between *Araona* and *Inca* mythology. Some of their gods, for instance the maize deity, were worshipped under the same name. *Araona* "temples" might also be cited as further confirmation of the diffusion of Andean culture, although they could have come from the Guiana type of dance hall and have been introduced by the *Mojo*. The organized *Araona* priesthood—if such existed—may have been patterned after the *Quechua* clergy. But, even excluding Andean contributions, eastern Bolivian cultures have a few traits not to be found elsewhere in the tropical area. For instance, bitter manioc was cultivated only on a small scale, if at all, the staple food being yuca (sweet manioc) and maize. Basketry was less developed than in the Amazon or Guiana areas and, in many tribes (*Yurakare*, *Moseten*, *Huari*, etc.), was less important than carrying nets, a feature which reminds us of the Chaco. The prevailing method of spinning by rolling the spindle over the thigh and the peculiar trough-shaped mortar with a wooden slab grinder are also typical of the area.

The traits which the eastern Bolivian cultures share with the upper Amazon region, the Amazon basin, and Guiana are numerous; many of them, of course, were spread by the *Arawak*, who are represented here by the *Mojo*, *Bauré*, *Apolista*, *Saraveka*, *Paikoneka*, and *Chané*. These tribes introduced the blowgun, curare, the plaiting loom, the vertical loom, bark trumpets, the dance hall or men's house, the shield, and other elements. In Bolivia they continued to practice the secret rites they had used in their former home. Nordenskiöld (1924 b, p. 228) has stressed the lack of importance of tobacco in eastern Bolivia. The *Guarayú*, who were late *Guaraní* invaders, are the only ones who indulged in smoking and used tobacco in religious ceremonies.

A few genuine *Tupí* cultural traits brought to the plains of Bolivia by the *Guaraní*, were the eastern Brazilian type of arrow feathering, the carrying basket, and the cylindrical mortar.

On the basis of Snethlage's observations, the limit of the eastern Bolivian culture should probably be placed in the lower Guaporé River basin. The tribes of the upper Guaporé River have a great many features which set them apart from all the other tribes to the east. They lived in huge conical houses, used mat altars in ceremonies, decorated themselves with shell ornaments more than with feathers, used the blowgun, and had a system of magic based on the utilization of a mysterious and invisible substance. These Indians resemble their Brazilian neighbors, the *Nambikuára*, with whom they should tentatively be merged in a single independent culture group pending fuller information.

Because the few available data on the *Siriono* are based either on brief observations or on second-hand information, I have given little space to these elusive forest nomads even though all travelers mention their forays and report the terror which they inspired in the Indians and Bolivian mestizoes. Moreover, these Indians are now being studied by an American anthropologist, Allan Holmberg, whose observations will completely supplant the limited and superficial data now available.

The vast area occupied by the tribes described in the following pages is also a promising field for archeologists, but up to the present only Erland Nordenskiöld (1913, 1917, 1924 c) has carried out systematic investigations there. W. C. Bennett (1936, pp. 375-411), who excavated near Cochabamba on the threshold of the lands inhabited by the *Chuncho*, or "Barbarians of the East," has summarized the available data on all the archeological finds of the lowlands of Bolivia and has established a chronology for the several sites. Like Nordenskiöld, Bennett recognizes an early influence of Tiahuanaco on the culture represented by the material of the lower level of Mound Velarde in the Province of Mojos. Thus, archeology shows that contact between the Andean civilization and the Indians of the eastern valleys of the Andes and of the plains of the tributaries of the Amazon existed in the most distant past.

YURAKARE

TRIBAL DIVISIONS AND HISTORY

Yurakare (*Conis, Cuchis, Enetes*).—The territory of the *Yurakare* is defined by D'Orbigny (1839, vol. 1, pp. 354-355) as the large zone of tropical forest at the foot of the Andes, extending from Santa Cruz in the east to Cochabamba in the west. It lay between 16° and 17° S. lat. and between 63° and 66° W. long. In more recent times, *Yurakare* settlements were scattered along the Mamorecillo, Chimoré, Chaparé, Securé, and San Mateo Rivers and their tributaries.

The *Yurakare* were divided into two mutually hostile groups: the *Solotos*, or eastern *Yurakare*, and the *Mansiños* to the west, on the slopes of the Andes. The *Oromos*, though exterminated by the *Mansiños*, seem to have belonged to the latter nation. The *Solotos* of the Mission of San Carlos were called *Mages* by the inhabitants of Santa Cruz.

The contacts of the *Yurakare* with civilization go far back in time. On several occasions in the seventeenth century they raided the Spanish settlements near Mizque and Cochabamba. The first missionary who tried to pacify them was Father Francisco Marcos, who in 1776 founded the Mission of Asunción de Maria Santisima on the Paracti River, between the Coni and Chaparé Rivers. This mission was soon abandoned but was restored for a few years in 1784. The Mission of San José on the Coni River was established by Father Tomas Anaya in 1795, but the Mission, which in the meantime had been shifted to the Mamoré River, was deserted by the Indians in 1805. When they returned to it, they were left without a priest. The Mission of San Francisco, founded on the Mamoré River in 1793, was also abandoned by the Indians. At the beginning of the nineteenth century, Father Lacueva tried to restore the Mission of Asunción, but it was completely ruined when D'Orbigny passed through in 1831.

Haenke (1900, p. 182) puts the total number of *Yurakare* at the end of the eighteenth century at about 1,500. In 1831 D'Orbigny (1893, vol. 1, p. 355) estimated the *Mansiños* to be about 1,000 and the *Solotos* to be 337. A German colonist in 1877 reckoned the whole nation to be about 1,500 (Holten, 1877, p. 108), and Nordenskiöld (1922, p. 46) stated that it was approximately 1,000 in 1908.

SUBSISTENCE

The *Yurakare* were typical forest dwellers, subsisting by agriculture, fishing, hunting, and, to some extent, by collecting wild foods.

Farming.—The *Yurakare* cultivated a few crops near their houses, but their main plantations were located farther away, in the exceedingly fertile soil of the forest. They were able to clear large forest tracts with iron tools acquired from the Whites during 100 years of active trade. A field measured by Nordenskiöld (1922, p. 49) was 33 feet (10 m.) by 1,650 feet (500 m.). The three staple foods were yuca, maize, and bananas. Other cultivated plants included sweetpotatoes, gourds, watermelons, hualusa (*Colocasia esculenta*), papaya, pineapples, cayenne pepper, cotton, and some tobacco. Formerly the *Yurakare* observed certain farming rituals. They went to their fields in festive array, playing music. While clearing the fields, both sexes refrained from eating peccary meat lest they be

crushed by a falling tree. They never approached a field before crops were ripe for fear of spoiling them. In fact, a house that was too near a field had to be evacuated until the harvest was reaped. Eating salt was also thought to destroy crops.

About every 2 years, when palm trees near the houses were destroyed and game became scarce, isolated families migrated elsewhere to open new clearings.

Hunting.—Hunting was not only an important economic activity but also a dignified occupation. Small groups of men hunted together, scattering in the forest and keeping contact with one another by means of whistles blown according to a set code. Before starting a hunt, especially one for monkeys, *Yurakare* hunters painted themselves elaborately to frighten wild animals, and drank a decoction of sumuque bark to insure good luck and to prevent any accident, such as an arrow falling on their heads. After returning home, they placed slain monkeys on palm leaves, the head specially oriented, and sprinkled them with chicha, saying, "We like you and therefore we brought you home." They burned or carefully buried the bones of slain animals which, disposed carelessly, might prevent the species from being killed in the future.

Fishing.—*Yurakare* generally shot fish with bows and arrows when the water was clear, but when streams were muddy they used dip nets, mainly at night.

Wild plants.—The main wild plant food was the tembe palm fruit, which was collected from February to June. Haenke (1900, p. 180) mentions the fruits of the urupa palm as another important item in their diet.

Pets.—The *Yurakare* were extremely fond of pets, some of which they procured in trade from the Bolivians. They kept a few chickens in conical henhouses, safe from vampire bats. In D'Orbigny's time, however, they never ate chickens because they considered their flesh to be unclean, nor would they feed them corn. The *Yurakare* also abhorred beef. One of the worst insults was "beef-eater," or "cook." They took good care of dogs and covered them at night with blankets, but never permitted them to gnaw bones for fear that the dogs might become unfit for hunting.

Food preparation.—The *Yurakare* cooked in a great assortment of pots and bowls. They ground maize with a stone on a flat piece of wood. Concave wickerwork baskets served as strainers. Wooden spoons were acquired at some time from the nearby Andean peoples. The *Yurakare* used the rectangular babracot. Men ate in their clubhouses apart from women.

HOUSES

The primitive *Yurakare* dwelling consisted of a large thatched gabled roof open at both ends and rising directly from the ground. The modern side-wall houses were copied from the Whites. In some cases the two sides of the roof of the native *Yurakare* house rested, not on a single ridgepole, but on special posts as if the whole roof consisted of two separate lean-tos in close contact. The interior of the hut had shelves for storing weapons, pots, and the boxes that contained the most valued ornaments. Each settlement had a clubhouse where men manufactured weapons, ate, and received visitors. Women were not allowed to enter it. Clubhouses have fallen into disuse. Only dwellings and small shelters for cooking are built today.

The *Yurakare* slept on palm-leaf mats under large bark mosquito nets which covered several people like a tent. Only babies slept in bark-cloth hammocks. Both sexes sat on mats on the ground. Benches were rare.

DRESS AND ADORNMENTS

Both sexes wore bark-cloth tunics trimmed with tassels and small figures of carved wood and bone. Men's tunics were covered with colored printed patterns; women's tunics were shorter and plainer.

Ornaments included semicircular ear pendants, originally of bone but later of silver; miter-shaped feather crowns; and heavy necklaces strung with seeds, animal teeth, bird beaks, bones, nuts, and other objects. Men spread white eagle down on their oil-soaked hair. When dancing, girls and boys attached tufts of feathers, strings of beetle wings, or small bells to their shoulders.

The *Yurakare* plucked out their eyebrows and sparse beard. They clipped their hair across the forehead but allowed it to hang full length down the back, where it was divided into numerous queues. Combs consisted either of wooden splinters, skillfully bound together with cotton twine that formed artistic geometric patterns, or of a series of teeth fastened between two sticks, the latter type showing Andean influence. Combs were carried around the neck.

The *Yurakare* used wooden stamps to print sophisticated colored designs on their bodies prior to any important activity, such as traveling, visiting, or working in the fields.

TRANSPORTATION

D'Orbigny (1839 a, vol. 1, p. 363) makes the surprising statement that, previous to contact with the *Mojo*, the *Yurakare* were ignorant of canoes. Buoyed up by a piece of light wood, they swam across

ivers. When a family had to travel, parents placed their children in a hollow palm tree and, holding it on both sides, let themselves drift with the current. At the beginning of the twentieth century, *Yurakare* dugout canoes were famous throughout eastern Bolivia for their excellent craftsmanship and balance. However, the *Yurakare* themselves used canoes that were far smaller than those they built for trade.

On land, women transported all objects and could carry 120 pounds. They used carrying nets instead of baskets, which are more common in tropical South America. These nets were tied with reef knots.

MANUFACTURES

Bark cloth.—The *Yurakare* made bark cloth of the inner bark of a *Ficus*. It was pounded with a rectangular wooden mallet that was grooved on its narrow sides.

Basketry.—The use of carrying nets probably relegated basketry to a place of secondary importance among the *Yurakare*. Norden-skiöld's collections (1922, figs. 25–28) include a wickerwork strainer, cylindrical baskets in hexagonal weave—the weft passes alternately over a strand of one and under a strand of another of two series of warp elements crossed diagonally—and rectangular boxes with overlapping lids made of *Gynerium* stalks twined together with thread. The *Yurakare* also made troughs by folding and sewing together large heavy sheaths of palm leaves, somewhat in the fashion of the bark buckets of the Arctic regions.

Pottery.—The manufacture of pottery, women's task, was surrounded by so many restrictions and taboos that it was almost a ceremonial act. Clay might not be procured during harvest season. Potters were secluded in special huts deep in the forest where they could not be seen, especially by the Thunder. While working, they performed several magical operations and observed complete silence, lest a word cause the pots to break. They also remained sexually continent for fear of spreading disease in the community.

Spinning.—The *Yurakare* set the distal end of their spindles in a wooden fork and rolled the shaft on a wooden block. According to D'Orbigny (1839 a, vol. 1, p. 363), the *Yurakare* knew nothing of weaving 100 years ago. Today, however, they use the Arawak or vertical loom.

Wood carving.—*Yurakare* men were extremely proficient carvers, as evidenced by the complicated artistic designs on wooden stamps, the small carved wooden and bone pendants, and the rectangular wooden bowls.

Weapons.—Bows were from 5 feet (1½ m.) to 6½ feet (2 m.) long. They were made of chonta palm wood, with a flattened rec-

tangular cross section. The bowstring was of bast. Feathers were split in two and fastened tightly to the *Gynerium* arrow shaft by means of a cotton wrapping smeared with wax (Peruvian cemented feathering). These arrows were distinctive because the feathering stopped a considerable distance short of the butt end of the arrow. Bird arrows were tipped with a small horizontal wooden cross. Points of arrows for small game were jagged on one side; arrows for large game were provided with a bone barb. Fishing arrows lacked barbs and feathers. When shooting, the *Yurakare* held the arrow butt between the thumb and index finger and pulled the string with the next two fingers.

POLITICAL ORGANIZATION

The *Yurakare* were split into small independent family groups. Each was governed by the family head, whose authority did not extend beyond his own settlement.

LIFE CYCLE

Birth and childhood.—Childbirth took place in the forest beside a brook. An old woman assisted the mother during delivery. The mother washed her newborn baby, then returned home, where she ate a certain kind of fish provided by her husband.

Abortion and infanticide were very common 100 years ago. Illegitimate and crippled children were killed by either parent. The *Yurakare* practiced a kind of birth control, each family keeping the number of its children within certain limits.

Children were weaned at the age of 3, but remained with their mothers until the age of 8, when boys were taught to hunt and make speeches. D'Orbigny was amazed at the liberty enjoyed by children, who were never scolded or even taunted. This lenient treatment of children is explainable partly by the fear that any reprimand might cause a child's death.

Girls' puberty.—The arrival of a girl at the age of puberty was celebrated by an elaborate ritual, designed to protect her from serpents, storms, jaguars, arrows, and fallen trees, and to make her courageous. When a mother learned that her daughter was menstruating for the first time, she shed tears, and then with other women went immediately to the fields to collect yuca roots from which to brew chicha. Meanwhile, the father built a small cabin in which the girl was secluded and fasted rigorously for 4 days. The father also prepared wooden troughs or containers of palm sheaths for the beer. At dawn on the fourth day the father, in his best attire, summoned all his neighbors. The girl sat on a stone. A bundle of palm

leaves was set on the fire. Each guest cut off a lock of the girl's hair with a bamboo knife and ran away into the forest to hide it in the hollow of a tree. When everyone had returned, the girl offered each a calabash of strong beer. Before drinking, each man stabbed his son on the arms with a sharp monkey bone. Mutual scarifications took place during this ceremony. The operator would pinch the skin of his patient between his fingers and pierce it with a bone awl smeared with red pepper; a man's arms from the shoulders to the tip of the fingers were thus scarified. This cruel infliction was thought to make a man a good hunter. Girls were similarly stabbed in the legs to give them courage and strength. Even dogs were subjected to this operation so that they would catch more game. Afterward everyone drank and danced until sunset.

The following day the neighbors of the pubescent girl met again and drank peanut beer. Fifteen or twenty days later another ceremony was held. This time, the girl mixed freely among other women and helped prepare the beer.

For the next 5 or 6 months the girl had to keep her head covered with bark cloth and was not permitted to speak to men.

Marriage.—Girls were allowed to marry young, but men had to wait until they had proved they were good providers. In arranging a marriage, either a man negotiated with the parents of his prospective bride or the parents of the young couple decided upon the marriage and forced it on their children. If there was compulsion, the parents organized a drinking bout during which the grandparents brought the young people together. The girl was deflowered by a man who acted as "godfather" to the couple. The bride and groom were placed under a bark-cloth tent and had to listen to a lecture on their future duties.

As all *Yurakare* groups were strongly endogamous, marriages were necessarily between close relatives, although marriage between relatives of the first degree was forbidden. If a man married a woman who was not related to him, he had to pay her relatives a large quantity of goods or else challenge them to a duel.

Polygyny was very unusual. Divorce was easy, especially if a woman thought her husband was a poor hunter.

Marriage was at first matrilocal, but when children were born, the couple set up an independent household.

Death.—At the approach of death, a grave was dug and a cabin built in the forest. The dying person was taken to the cabin, followed by his friends and relatives. His honor was proportionate to the size of the crowd assembled at his grave. Prior to death, he bequeathed his property to his children and was given messages by various people to deliver to the dead. The corpse was wrapped

in pieces of bark and buried with the head toward the east. The relatives cried, threw themselves into the grave, and tore off their shirts, which they left with the corpse. Any property that the deceased had not given to someone was destroyed lest he return for it and kill people by touching them with a stick. Mourning lasted for several years. Neighbors expressed sympathy for the mourners by lamenting twice in succession and were answered in the same manner. Modern *Yurakare* in recent times burned the house of the deceased and moved their settlement to a new locality. Even in early days, a man's fields were abandoned at his death, and no one dared harvest his fruits.

The soul went to the underworld where it lived merrily and engaged in hunting, especially for wild boar, the favorite game of the *Yurakare*.

ESTHETIC AND RECREATIONAL ACTIVITIES

Art.—The highest expression of *Yurakare* art was in the painted patterns on bark-cloth shirts. The motifs, some of which were rectilinear but most of which were curvilinear, are difficult to describe. They give the impression of being extremely conventionalized leaves and "flames" treated in rococo style. We have already mentioned the artistic combs, which found a ready market among Cochabamba mestizos.

Toys and games.—The *Yurakare* made wax dolls for their little girls, and miniature weapons for their boys. The latter included pellet bows and ordinary bows and arrows. Children also played with buzzing disks and tops.

Musical instruments.—The typical serére whistle—a rectangular piece of wood that has a diamond-shaped cross section and a longitudinal hole—was not only a musical instrument but also a prized ornament that men hung around their necks. When blown, it was held vertically. The resonator whistle, which is closely related to the serére whistle, is a round, flat piece of wood with a blowhole in the edge and two stops in the sides. Plug flutes with six stops, although made of bird bones, are clearly of European origin. Similarly, the bone quenás or notched end-flutes of the *Yurakare* point to direct influences from the Andean civilization. These instruments have two stops in front and a thumb hole immediately behind the upper stop. The *Yurakare* panpipe has an average number of five reeds enclosed by a strip of bamboo fastened with threads (Aymara ligature).

Narcotics and drinks.—The *Yurakare* cultivated, but rarely smoked, tobacco. They used tobacco mainly as a drug against the

boro, the larva of an oestrid fly (*Dermatomya*). They drank beer made by pounding and boiling yuca tubers, straining the mass, and allowing it to ferment.

RELIGION

Deities.—The Thunder God was Mororoma, who threw lightning from the top of the mountains. When Thunder was heard, men threatened to shoot him. Pepezu was the Wind God who kidnapped men in the middle of the forest. Chuchu was the War God who taught the *Yurakare* how to fight. Tele, dressed in white, seems to have been the culture hero. According to Haenke (1900, p. 183), the *Yurakare* believed in a good god, Tantoco, who showed his beneficial power in putting out a big fire caused by an evil deity called Limpelite. Whenever a storm was about to break, women and children were sent into the huts while men shot arrows and recited incantations against this "fiery being" who threatened to destroy their houses and plantations.

Shamanism.—Diseases were attributed to sorcerers and to evil spirits. The wind was believed to bring spirits that caused physical pain and nausea. The rainbow and red clouds in the evening were responsible for many illnesses. Reprimands or scoldings also were considered to be harmful. Because epidemics generally were attributed to visitors, especially to those who complained of some ailment, the *Yurakare* were uneasy when foreigners visited them.

Shamans cured by blowing tobacco smoke on a patient's body and by letting his blood with a bamboo knife. Before making his diagnosis, the shaman examined his own saliva in the palm of his hands and summoned his client's soul.

The *Yurakare* burned intestinal worms. They believed that giving pus to ants would dry an abscess.

Omens.—Thunder and the cry of the viuda bird were believed to foretell death. If thunder rolled or lightning struck in the direction from which visitors came, the *Yurakare* expected an epidemic to break out.

Mythology.—In the beginning of the world an evil demon called Sararuma or Aima Suñé set the earth on fire. A man who had dug himself a hole in the soil was the only being who survived. While confined to his hole, he stuck out a branch to see whether the fire had stopped. Twice when he pulled the branch down it was aflame. On the third attempt he discovered that it was safe for him to leave the hole. While wandering through the parched and desolate land, he met Sararuma, who gave him a handful of seeds. These he planted and the world was soon covered with forests again. The man married a woman, by whom he had several sons and one daughter. The daughter told an ule tree that if it were a man she would

marry him. She painted the tree with rucu, which immediately transformed it into a handsome man. Ule spent only nights with his wife. Disappointed by this, the woman tied him up and forced him to stay with her during the day. Ule was killed by a jaguar, who scattered the parts of his body. His wife picked up all the pieces and put them together. Ule regained life and said, "I have slept well." On the way home, Ule noticed that part of his jaw was missing. This made him ashamed and he refused to return home. He then left his wife, telling her that she must not turn her head if she heard a noise behind her and that she should remember that this was produced by her husband's animals. The woman did not listen to his advice and lost her way. She arrived at the house of the jaguars. Although the mother of the jaguars tried to conceal her, the jaguars discovered her and forced her to delouse their heads and to bite the "lice," which were really big ants. The jaguars' mother gave the woman corn, which she cracked with her teeth, making the jaguars believe that she was biting the vermin. One of the jaguars had four eyes and exposed the ruse. He killed her and extracted a baby boy, Tiri, from her stomach. The jaguars' mother put the baby in a pot as if to boil him, but spared his life and reared him. The child grew rapidly, and hunted game for his foster mother. One day Tiri struck a paca on the tail. The paca scolded him for pursuing harmless animals while he allowed the murderers of his mother to live. Tiri returned home and killed three jaguars with his bow and arrows. The jaguar that had two pairs of eyes saw the danger, and, climbing to the top of a tree, cried, "Trees, palm trees, help me! Star, help! Moon, help!" The moon caught him up and kept him with her. The spots on the moon were said to be the four-eyed jaguar. The jaguars became night animals.

Tiri opened a big clearing for the mother of the jaguars. After this, he made himself a companion by breaking off a toenail and changing it into a man, Karu. Tiri and Karu called on a bird to whom they gave food seasoned with salt. The bird was so pleased with the taste that he asked the two men to give him some salt, but he carelessly left it in the open and a heavy rain melted it. Since then the *Yurakare* have had no more salt in their forests.

Another bird showed Tiri and Karu a pot which, when emptied, refilled itself. Tiri struck the miraculous pot with his stick and caused a flood which drowned Karu. Later Tiri found his bones and brought him back to life.

Tiri and Karu married pospo birds, by whom they had children. The girls were born with their breasts on their foreheads, but Tiri moved them to their chests.

Karu's son died. Tiri told Karu to look for him and promised that he would find him alive if he did not eat him. On his son's grave Karu saw a peanut plant, which he ate without knowing that it was his son. Because of Karu, men are mortal.

Karu shook a tree; a duck fell to the ground and was immediately devoured by Karu. When he learned that the duck was his son he vomited and from his mouth flew parrots, tucans, and other birds.

Tiri met a female jaguar with a bloody mouth, who told him that she fed on people killed by a serpent. Tiri changed the jaguar into a vulture. He ordered the stork to kill the serpent. As soon as the serpent was dead the ancestors of the *Mansiños*, *Solotos*, *Quechua*, and *Chiriguano* emerged from a hole where they had been hiding from it. This cave was near the Mamoré head waters. Fearing that a great chief might come out of it, Tiri closed it. Ever since then the cave has been guarded by a serpent. Tiri ordered the people to scatter over the world. Arrows fell from the sky; these were eagerly seized by the *Chiriguano* and so men began to quarrel.

Tiri decided to retire to the end of the world. In order to know its extent, he sent a bird to the four directions of the horizon. Three times the bird came back within a short time, featherless, but on the fourth trip it remained away a very long time and returned from the west with beautiful new plumage. Tiri decided to go in that direction. He stayed there with people who, upon reaching old age, are rejuvenated.

SOCIAL CONTROL AND ETIQUETTE

In D'Orbigny's time the *Yurakare* stressed self-control. Also, they objected strongly to "personal remarks," believing that a reprimand would cause a person to become ill or die. To express approval of someone they would say to him, "You are very good. You never get angry with me. You never reproach me."

Quarrels were settled by formal duels with arrows which, though likely to inflict deep wounds, were equipped with heads that were carved so that they could not cause death. The main motives for duels were sex rivalry and revenge for black magic. If a person were bitten by a serpent, his relatives blamed somebody for the accident. One of the relatives then bathed, donned his best garments, and went to the house of the presumed sorcerer, where he struck the roof and challenged him to a duel. The accused, forewarned by previous threats, took his bow and dueling arrows and stood some 5 feet from the challenged, presenting his left shoulder. The accuser shot at the other's arm and then was shot at in turn. Thus they exchanged eight or ten shots, until the accuser was satisfied. Often the duelers died of exhaustion. Sometimes a person, incensed by deep hatred,

purposely aimed at a vital spot, pretending that he was thus violating unwittingly the rules of dueling.

Meetings between strangers were governed by strict etiquette. When visitors approached a village, they washed, painted themselves, and put on their most conspicuous ornaments. Then they whistled and formed a line, holding up their axes and hunting arrows as they entered the village. The hosts walked toward the visitors in the same way. Suddenly, some one would address a guest, as follows: "Are you my uncle [or some other relative] who, remembering me, has come to see me?" The guest then stepped forward with great arrogance, and answered, "Yes, I am the one who, remembering you, has come to see you." Standing in front of his house, the host then started a speech which lasted for hours and was delivered in an increasingly louder voice. The visitor answered in the same manner. The two interlocutors might thus spend a whole day conversing about their origins, their ancestors, and the vicissitudes of their lives and the lives of their relatives. At the close of these ceremonial speeches they bathed, entered the house, and cried for hours, celebrating in stanzas the deeds of their deceased relatives. Then they stopped and inquired about each other's health. Food was served to the most honored guest, who shared it with the assistants. Visitors rarely stayed more than 3 days, during all of which time they chatted without sleeping. Guests always remained together and walked in a line.

Suicide was very common. If afflicted with some incurable disease or suffering some great humiliation, a *Yurakare* threw himself from the top of a tree.

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Adam (1892), Cardús (1886, p. 289), Cueva (1893), Haenke (1900, pp. 172-185), Holton (1877), Mather (1922), Mathews (1879, pp. 186-196), Nordenskiöld (1922, pp. 37-70; 1924 b, passim), D'Orbigny (1839, vol. 1, pp. 354-367; 1844, vol. 3, pp. 188-215); Viedma (1836, vol. 3, pp. 91-97).

MOSETEN AND CHIMAN

TRIBAL DIVISIONS AND HISTORY

The *Moseten* (*Rache, Amo, Chumpa, Cunana, Aparoño, Magdaleno*) lived along the Bopi (Wopi) River to Espia and along the Quiquive and Beni Rivers north to the vicinity of the town of Reyes until the end of the nineteenth century, when they were concentrated in the Missions of Covendo, Santa Ana, and Muchanes. The *Chiman* (*Chimanisa, Chumano, Chimani, Nawazi-Moñtji*), who belonged to the same linguistic stock, were settled on the upper Maniqui

(Chimane) and Apere Rivers.¹ The *Moseten* of the Beni River were also called *Muchan*, while those at the junction of the Bopi and Beni Rivers were called *Tucupi*.

The *Chiman* are often listed under the name of *Chumano* among the native tribes of Apolobamba or Carabaya in seventeenth- and eighteenth-century documents. Father Gregorio de Bolívar, who sojourned among them in 1621, describes them as "very good people, reasonable, well dressed and friendly" (Bolívar, 1906, pp. 218-230). In several reports of the region of Apolobamba written between 1677 and 1681, the *Chumano* figure as a large tribe living in 30 to 100 villages near the *Takanan* Indians (Mollinedo in Maurtua, 1906, pp. 70, 77, 97).

The *Moseten* inhabit a mountainous region, which is densely covered with tropical vegetation and crossed by countless rivers and streams which flow into the Amazon Basin.

The first historical documents (1588) concerning the *Moseten* are direct transcriptions of answers given by *Amo* (*Moseten*) Indians to questions asked by the Spanish captain, Francisco de Angulo (Maurtua, 1906, vol. 9, pp. 88-104), about the *Inca* roads, their conquest by the Peruvians, and the riches of Corocoro. A *Moseten* chief told him that the *Inca* had entered their land, but had interrupted the conquest when the news of the landing of the Spaniards came. Another Indian from a place called Curo stated that formerly the inhabitants of his village had paid the *Inca* a tribute of feathers, bows and arrows, and war clubs. Moreover, certain men had been appointed by the *Inca* to care for a hanging bridge. All the witnesses agreed that at the city of Corocoro countless goldsmiths made vessels and all kinds of ornaments of gold and silver. An old witness declared that he had been a messenger of the *Inca* and a custodian of the bridge. He enumerated the forts of the *Inca* and even referred to a defeat suffered by an *Inca* at the hand of the *Pacaje* Indians. Although some of the statements of the Indians may have been misunderstood by the Spaniards, it is apparent that the *Moseten* had been in touch with the *Inca*, and perhaps had been subjugated by them.

The first missionary to the *Moseten* was probably Gregorio de Bolívar. On his expedition of 1621 he stayed with the *Chiman*, but his account does not mention the *Moseten* by any of the names by which they were known in the seventeenth century. On another

¹ Wegner (1931, p. 87) locates the *Chiman* between the Beni River and the marshes of the Rapulo River. He found them concentrated on the upper course of the Cochiro River, above the narrows through which the river flows into the plains. He states that they were named from the Chimán River, a tributary of the Cochiro River. I was unable to find the latter on any of the maps that I examined. Possibly Maniqui and Cochiro are synonyms.

expedition some years later, however, perhaps around 1631, he entered the land of the *Moseten* from Colome, near Cochabamba. His companion, a layman, deserted him and was killed by the *Chuñipa* Indians. He himself remained in a village on the Sepayco River, which was attacked one night by a party of *Mayuruna*, probably *Mojo*, who lived downstream. The Father was kidnapped and was never heard from again. Another Augustin priest crossed the land of the *Rache* (*Moseten*) in 1666 and reached the Mamoré River, where he was killed by the *Arecuriano*, probably a *Mojo* tribe; the *Mojo*, however, blamed the murder on the *Moseten*.

The religious and political conquest of the land of the *Moseten* was undertaken in 1666 and 1667 by the Governor of Santa Cruz, Don Benito de Rivera y Quiroga. The Dominican Father Francisco del Rosario, who, with Father José Morillo, accompanied the expedition and played an important part in it as a scout and leader, gave us a detailed account of its various incidents in a letter written at Quetoqueto in 1677 (see Melendez, 1682, vol. 3, pp. 812-844). Father Francisco del Rosario, an adventurous character, had always wished to penetrate the regions east of the Andes. In one of his first expeditions he reached the Yungoma River, where he stayed in a village of pagan *Aymara* Indians, whom he called *Yomo*. There he was visited by several *Amo* or *Rache* (*Moseten*) Indians who asked him to go to their villages. Father Francisco del Rosario managed to excite the cupidity of Benito de Rivera y Quiroga, and, with a party of soldiers, they entered the land of the *Moseten*, where they were well received. The soldiers, disappointed at not finding the promised gold and silver, deserted, but the two missionaries and a few Spaniards spent the rainy season in a *Moseten* village planting the first seeds of Christianity. The *Moseten* had been decimated by an epidemic, probably of smallpox, and showed themselves well disposed toward the missionaries whom, in their misery, they must have regarded as potential saviors.

The Spaniards made a second trip across *Moseten* territory during the following year, and arrived at the Upati (Ypati) River, where they found the first *Mojo* villages. The Spaniards tried to reach the Beni River where, they had been told, they would find gold and silver; but after several frays with the *Mojo*, they retreated to the land of the *Rache*. A few months later Father Francisco del Rosario explored the course of the Cotacaxas River and with Rivera y Quiroga finally arrived on the bank of the Beni River near the mouth of the Sopire and Coani Rivers. The Spaniards raided a village of *Humuca* Indians somewhat above the junction of the Quetoto and Beni Rivers (that is to say, the Santa Elena or Altomachi River). Once more discouraged, the soldiers deserted and

Quiroga gave up his dream of conquering the mountains of silver and gold which the Indians had persuaded him he was about to discover. A settlement was founded in the Quetoto valley to serve as a base for the conquest of El Dorado.

Both the *Moseten* and the *Mojo* told the Spaniards that they maintained active commercial relations with each other, the foundation of which was the salt produced by the *Moseten*. The *Mojo* merchants not only purchased salt, but also beads and European knives which were probably obtained from the *Aymara*. The commodities bartered by the *Mojo* were probably cotton cloth, Brazil nuts, feathers, and, if we can believe the *Moseten*, silver ornaments.

It is more likely that the silver which the Spaniards found in the possession of the *Moseten* came from some *Aymara* tribe established nearby. Father Francisco del Rosario tells us that the Indians of the Quetoqueto Valley were all expert goldsmiths and that there were smithies in practically every village. The ore was obtained in the form of stones which were collected near the mines. Tools were made of an alloy of equal parts of silver and copper. The minerals were ground together and smelted over a coal fire, blown with long tubes. These metal working people were the direct neighbors of the *Moseten*, but quite likely they also traded with the *Mojo*. This is doubtless how the *Mojo* and *Moseten* got all their metal; and so was born, perhaps, the legend of the El Dorado in which the *Mojo* were so strangely confused with the *Inca*.

A great many *Moseten* spoke or understood *Aymara*, good evidence of the influence of Andean culture on the forest tribes.

The systematic conversion of the *Moseten* was not begun until 1804, when the Mission of San Miguel de Muchanes was founded. Santa Ana was founded in 1815 and Covendo in 1842. The first missions in the *Chiman* country were founded by Dominicans at the end of the eighteenth century, but were destroyed by the Indians. Of the two Franciscan missions established in this region in 1840, one had to be abandoned after an epidemic and the other came to an end when the missionary in charge was murdered. As a result of these long contacts with European civilization, the contemporary *Moseten* have been practically assimilated into the mestizo population of Bolivia, but the *Chiman*, who remained more isolated, still retained much of their aboriginal mode of life 30 years ago.

Father Francisco del Rosario (Melendez, 1682, p. 822) puts at more than 1,000 the total number of Indians living in the 6 *Moseten* villages of which he knew. At the beginning of the nineteenth century, missionaries estimated that there were 700 *Moseten* families. D'Orbigny (1839) placed the population roughly at 2,400 individuals. Fifty years ago, another missionary stated that only 120 families

remained. In 1913, Nordenskiöld found only 172 *Moseten* in the Mission of Covendo, but believed that the *Chiman* numbered 2,000 to 3,000.

In the region inhabited today by the *Chiman* Indians, especially between San Borja and San Ignacio, there are remains of large canals, dikes, and raised earth platforms built to drain the vast marshes and to convert them into fields. These elaborate structures were made either by a large and industrious population which preceded the *Chiman* or else by the original stock from which the modern *Chiman* are descended.

SUBSISTENCE

Farming.—The *Moseten* were always good agriculturalists but were not strongly attached to the soil. They frequently changed the location of their settlements or simultaneously exploited several fields located at some distance from their settlements. They raised sweet manioc, maize, sweetpotatoes, hualusa (*Colocasia esculenta*), pineapples, papayas, gourds, watermelons, sugarcane, rucu, and plants recently introduced such as onions, rice, and a very good quality of coffee. They cultivated a little tobacco but used it only to kill the boro, the larvae of an oestrid fly.

Chiman men opened clearings on the river shore, which could be reached by the annual floods. Women tilled the soil with digging sticks. The main crops were yuca, bananas, peanuts, rice, a creeper called binca, and a big tuber called chipapa. The *Chiman* also cultivated several plants for purposes other than food, such as eight varieties of reed for arrow shafts, creepers for drugging fish, calabash trees, gourds, bamboo for arrow heads, cotton, rucu, and tobacco.

Gathering wild foods.—The forests afforded palm fruit and game. To climb trees, *Chiman* men used fiber rings fastened around their feet.

Hunting and fishing.—Hunting was done with bows and arrows, snares, and traps. Spring pole traps for rabbits consisted of a running noose attached to the end of an elastic rod. The rod was held in a bent position by means of a trigger passing under a small wooden arch placed in the middle of an enclosure. When the rabbit nibbled at the bait, it released the pole which flipped up so that the animal was caught by the noose. To kill jaguars and other large mammals the *Moseten* built large fall traps, which are illustrated by Nordenskiöld (1924 b, figs. 17-18). A heavy platform of logs or branches weighted with rocks was placed at an acute angle and rested over two slanting poles. The stability of the support was secured by a cord attached to a trigger under a cross-bar. A horizontal stick maintained the trigger in position. If the animal touched this

stick, the cord was released and the platform fell on him. Smaller animals were caught in a trap constructed on the same principle, but the raised platform was propped by a single stick resting over a horizontal rod to which the bait was attached.

Fishing was even more important than hunting to the *Chiman*. Although both the *Moseten* and *Chiman* usually shot fish with arrows, they also used hooks, nets, poison, and weirs. Recent *Chiman* hooks were made of bone splinters. To poison fish, the *Chiman* built two weirs of reeds about 150 feet apart across a stream, threw a poisonous creeper into the water, and shot the half-drugged fish with arrows. They also caught fish in conical baskets placed in the openings of a weir. When fish migrated to spawn, the *Moseten* and *Chiman* constructed V-shaped weirs, which diverted them toward slanting platforms placed under the falls. There they remained stranded and died in great quantities. The mission *Moseten* dried fish in the sun and stored them against any shortage of meat.

Domesticated animals.—The *Moseten* received many hens, pigs, guinea pigs, and dogs from the missionaries. They kept hens in conical chicken houses tightly closed to keep out vampire bats. They fed dogs bananas but never gave them bones because this was thought to offend game and make it elusive.

Food preparation.—Food was prepared with the following utensils: Handmills or metates consisting of a stone grinder and a wooden slab; rectangular strainers; wooden troughs; wooden spoons; pots of simple shapes; shells; bowls made of palm leaf midribs; and rectangular babracots.

The *Chiman* made salt by evaporating in bark buckets or pots the salty water of a spring near the upper Maniqui River. To transport the salt, they wrapped it in banana leaves and fibers.

HOUSES

Although the *Moseten* and *Chiman* had small huts open on four sides which were obviously adapted from mestizo dwellings, their temporary shelters were, in Nordenskiöld's opinion, constructed like their aboriginal houses. The latter were either open sheds with a gabled roof or a gabled roof resting directly on the ground. The *Moseten* also improvised shelters of leaves supported by three vertical poles.

Chiman settlements usually had but few houses and even isolated huts accommodating a single family were fairly common. The Indians explained that it was necessary to live in small, scattered settlements because large concentrations of people would exhaust natural resources.

Moseten villages in the seventeenth century had large, well-built houses arranged in a circle around a plaza in which stood the men's hut or council hall, called *lacsá* (Melendez, 1682, vol. 3, p. 822).

Both sexes formerly slept and sat on mats but later adopted the platform bed. At night the *Chiman* covered themselves with bark-cloth blankets. The *Moseten* escaped mosquitoes by burying themselves in the sand, the *Chiman* by hanging a large piece of bark cloth over themselves. Babies rested in small bark-cloth cradles suspended from the roof.

Cooking was done in a special hut.

DRESS AND ADORNMENTS

Men and women among the *Moseten* wore long, sleeveless cotton tunics characteristic of the area. Formerly, these were dyed violet, with large red stripes on the borders. Bark-cloth shirts, although once commonly used, were recently limited to children. A seventeenth-century account states that although everyone dressed in shirts, women wore only a simple loincloth at home (Melendez, 1682). Modern *Chiman* wear cotton shirts, unless they are working, at which time they wear bark-cloth shirts. A man's outfit included a belt decorated with geometrical patterns and ending in long fringes, and a cotton or bark-cloth bag.

Earrings and feather headdresses are reported by D'Orbigny (1839, vol. 1, p. 373) among the ancient *Moseten*. *Chiman* wore headdresses made of the tail feathers of the *Ostinops decumanus* bird. Women's necklaces were made of the red fruit of *Cassia fistula*; children's were strung with monkey teeth, cocoons, and pieces of bark cut into human shapes. The only other ornaments were woven cotton bracelets.

The ancient *Moseten* men wore their hair in a long wrapped queue that hung down the back. *Chiman* men cut their hair short but women allowed theirs to grow freely. Body painting must have been uncommon, as it is mentioned only twice—a few blue lines on the face and red spots of *rucu* on the forehead and cheeks. Pieces of bird skin and tufts of feathers attached to children's garments were, like those suspended from cradles, mere amulets.

TRANSPORTATION

The *Moseten* navigated exclusively on rafts, which were better adapted than canoes to the rapid streams of their country. Modern rafts were made of seven logs of *palo balsa*, a very light wood, nailed together with *chonta* spikes. The long central logs were made of two trunks laid end to end. Some rafts were provided with a raised prow constructed of bent pieces of wood attached to the three middle

logs. The *Moseten* often built a platform on top of the raft to keep goods dry. The raised bow and platform were improvements on the primitive raft introduced when the *Moseten* were handling most of the river traffic on the upper Beni River. The paddles had a long blade and a plain handle which lacked the knob or crutch found on most paddles of tropical Indians. In addition to the paddle, they used long sticks to punt.

The *Chiman* also had rafts, but made extensive use of dugouts for river journeys. Standing on the flat stern, a boatman punted his craft with long *Gynerium saccharoides* stems, but used a paddle to pass rapids. At night they staked their canoes to the sand by means of a stick passed through a hole in the bow.

Women carried loads in nets or in baskets suspended on their backs by a tumpline; men used a strap across their chest. Hunters were expert in weaving temporary baskets of palm leaves in which to bring home their game. Like the Andean Indians, the *Moseten* always wore a small cotton bag slung over the shoulder. A very small child was carried in a cotton bag on its mother's back. An older child straddled the mother's left hip.

MANUFACTURES

Bark cloth.—Bark cloth was made from the thick bast layer of the bibosi (*Ficus* sp.) tree and of some other trees. The Indians first cut a piece of wood 8 to 10 inches (20 to 25.5 cm.) in diameter and the desired length. They incised the bark longitudinally with a quartz splinter or a sharp tooth, and then heated the stump until the dry bark could be removed with a single pull. The bark was stretched to separate the outer bark with its green layer from the inner bast, from which all the whitish fibers were scratched. The bast was then beaten with a grooved wooden mallet until it became soft. Several bark-cloth pieces were sewn together with a bone needle to make blankets, shirts, and mosquito nets.

Basketry.—*Chiman* specimens collected by Nordenskiöld include few baskets, probably because nets were more commonly used. The *Moseten* made mats of leaves or reeds cut in strips and woven across a rectangular reed frame. Baskets woven of motacu palm leaves included large baskets for transporting crops, and small containers that were hung in the huts to hold odds and ends. The *Chiman* stored feathers and amulets in long rectangular boxes with overlapping lids made of *Gynerium* stalks joined together with cotton threads. Twilled sieves were either rectangular or round. There were two types of triangular fire fans, which differed in such structural details as the distance to which the motacu follicles were woven toward the base.

Weaving.—Spindles had small, rectangular, wooden whorls. A woman sat on the ground with outstretched legs and stuck the distal end of the spindle between her large toe and the next. With her right hand, she rolled the spindle to and fro on a horizontal piece of wood or on her right thigh, which forced her to bend the left leg. Nordenskiöld mentions (1924 b, map 26) only one type of loom, a frame with two horizontal bars. Cloth was plaited rather than woven, and was made only with warp elements. Although the process is not described, it probably resembled that used in the Guianas for baby slings and described in detail by Roth (1924, pp. 400–411). Cotton threads were first wrapped around the two horizontal bars of the loom. Each thread was then crossed over the adjoining thread and held in place by mesh sticks. This was repeated until the entire cloth had the appearance of a diagonal weave, when the sticks were withdrawn and one or more strings run across the center between the threads to prevent their slipping back to their original position. The patterns on the fabrics were obtained by using threads of different colors. Violet dye was extracted from the leaves of the idzi tree (*Haematoxylon*), and brown from the bark of the jira or caoba tree.

Pottery.—*Chiman* women made pots by the coiling method, using a mussel shell as a scraper. After being fired, the pots were sprinkled with banana-tree sap, thus acquiring a beautiful black color.

Tools.—The *Chiman* were the only Indians of that area who used stone adzes to cut trees. The haft was a forked limb, the longer branch forming the handle and the shorter branch the base against which the stone blade was lashed.

Borers and chisels were boar tusks, piranha teeth, and aguti incisors attached to the end of a long chonta stick.

Netting.—Netting was made with reef knots.

Weapons.—Bows about 6 feet (2 m.) long were made of chonta palm. The nature of this wood made the cross section of the bow necessarily rectangular, flattened, and slightly convex externally. Shoulders were cut at each end of the bow to hold the vegetal fiber string. Reed arrow shafts were straightened by heating. Nordenskiöld states (1924 b, p. 46–47) that feathering was of the Peruvian cemented type and that the feathers stopped some distance short of the butt end, as on *Yurakare* arrows. Balzan's (1892, p. 235) description, however, indicates that the *Moseten* also attached their feathers in the eastern Brazilian fashion, that is, by laying the split quill with the barb tangentially against the shaft and tying only its two extremities.

Monkeys and small mammals were killed with arrows tipped with

long rods that were triangular in cross section and had no barbs; large mammals were shot with arrows having lanceolate bamboo heads. Some bird arrows ended in a large, bulging wooden knob; others were tipped by two horizontal sticks attached perpendicular to the shaft to form a cross. Such arrows were often dipped into a rubberlike substance coagulated with the sap of other plants. The size of the rubber head depended on the species of bird to be hunted. Fishing arrows lacked feathers and were tipped with a long rod with prominent barbs.

SOCIAL ORGANIZATION

The *Moseten*, like neighboring tribes, were divided into small, independent units, each consisting of one family or more. Although some settlements were situated relatively near one another, each family kept very much to itself.

Rosario, however, accredits each seventeenth-century *Moseten* village with a chief, called chono. A chief's orders were transmitted through two alcaldes, who were elected annually after members of the community had fasted and observed continence. Each village also had one or two persons delegated to take charge of visitors and to receive the presents of tobacco which the latter were obliged to bring to the chief, and a special appointee charged with keeping the plaza clean and the guests supplied with fuel (Melendez, 1682). These features are so reminiscent of *Aymara* villages that they must either have been introduced by the missionaries or else copied directly from the *Aymara*.

LIFE CYCLE

A pregnant *Chiman* woman avoided eating the flesh of several animals, especially tapir. New-born babies were smeared with genipa. Girls enjoyed a period of sexual freedom after puberty but married at a very early age. They showed their willingness to marry a suitor by sitting near him on his mat. After a short trial marriage the couple might separate, but the birth of a child strengthened their conjugal ties. A *Chiman* man was privileged to marry two or more women only if he were capable of supporting them.

The dead were buried in shallow graves a short distance from their huts, which, with their possessions, were destroyed. Mourners occasionally smeared their cheeks with ashes.

RELIGION

The only information on *Moseten* religion before the introduction of Christianity is Father Francisco del Rosario's statement (Melen-

dez, 1682, vol. 3, p. 821)² that the main god was called Apu, a *Quechua* word meaning "lord," and that Suisuy (a bad spirit), the sun, the moon, and the stars were worshipped; tobacco smoke was offered to them. One night during their sojourn in a *Moseten* village, the Spaniards heard a noise as if somebody were running away. The Indians explained that it was Suisuy who had died and was in the underworld.

Thirty years ago black magic was still rife among the *Moseten*, who were convinced that a sorcerer could summon his enemies' souls from their bodies and destroy them. Ghosts took animal forms, but ordinary spirits were like men. Opo was a demon with a huge penis. Medical virtues were assigned to his bones (fossils), which were to be found in every hut. Pieces of the body of another demon, Chaumboy, caused a common type of skin disease (espundia).

Hunters bled their right arms with an eagle claw and rubbed their eyes with an eagle eye. They left the liver of a wild pig on the spot where they killed it, hoping it would turn again into a living pig. They carefully kept the bones of the slain animals in a basket and brought them back to the forest. The *Chiman* cut the feet of slain animals lest their ghosts, accompanied by all the remaining game, leave the district. For a similar reason rabbit meat could not be cooked with tubers. Beads made of the rosin of the paquioba tree (*Hymenaea*) and pieces of armadillo liver attached to a dog were powerful hunting charms.

Amulets hung on a child's shirt or on its cradle consisted of the child's dried naval cord, tufts of feathers, animal claws, and miniature objects symbolizing future activities.

Part of the *Moseten* mythology has been recorded by Nordenskiöld. The creator and culture hero was Dohitt, who was elevated to the dignity of the Christian God. He made the earth in the form of a small raft supported by spirits. Then he molded clay dolls which he changed into human beings. After he had retired to the sky, he and his companion, the white condor, Keri, decided to visit mankind again. Keri is perhaps an *Arawak* mythical hero, for in several *Arawak* dialects Keri means "moon," and a culture hero with the same name occurs in *Bakaïri* mythology. Dohitt reached the earth by sliding down a rope he had made of the mucus from his nose. When Keri followed, the rope broke and he crashed to the ground. Dohitt transformed Keri's head into a fish, and then he

² "Confessauan al Dios Apu (voz que significa el Gran Señor de todo), y le ofrecian humo de tabaco, y echauan el humo asia el cielo, luego de echauan humo al Suisuy, que es el demonio, al Sol, Luna, y Estrellas. El Suisuy, decian que era malo, y que les hurtaua lo que tenían, y que era chiquito, y que el Dios Apu le azotaua" (Francisco del-Rosario, in Melendez, 1682, vol. 3, p. 821).

wandered about the world changing men into all kinds of animals (vultures, monkeys, etc.) to punish them for their meanness and bad manners.

In many adventures, Dohitt lacks the dignity of a culture hero and is revealed as a trickster who is fooled and mistreated. For instance, he borrows feathers from birds in order to fly, but loses them and falls upon a tree which becomes so big that he cannot reach the ground. To descend, he has to make himself so small that he can ride on a caterpillar who, however, finally drops him on a bamboo where he remains impaled. He is rescued by a wildcat, only to be deceived again by a shaman who pins him to the ground. While wriggling to free himself, he shakes the earth and causes earthquakes. He then asserts his power by creating an enormous basket full of water. He sends his enemy, the shaman, and other men to various parts of the world with baskets of water to create rivers. Even now, thunder and storms are unleashed by Dohitt, who orders the shaman to spill water on the earth.

Dohitt, in the role of a true Indian culture hero, however, bestowed agriculture on mankind. A mythical being, Sonyó, followed Dohitt's trail and discovered fields of maize, yuca, and other plants wherever he stopped to inquire about Dohitt's whereabouts.

MYTHOLOGY AND LITERATURE

The fall of the sky.—The sky once fell upon the earth, but was restored to its former position by a serpent who wound himself around the sky and earth. He continues to keep them apart today.

The flood.—A man seduced a girl while she was bathing in a river. She became pregnant and bore a child with long hair. The father wanted his child but could not find him. Becoming angry, he caused the rivers to flood the country. Only a few men on top of a mountain were saved.

The Milky Way.—The Milky Way is a huge worm. Once when it was a small worm, it was picked up by a man who wanted a pet. The man had to feed it hearts, first of animals, then of men. When the worm's stepfather was killed by vengeful people, the worm destroyed them all and went up to the sky. The stars of the Milky Way are arrows which men shot at the worm when he wound himself around their village.

Rainbow.—The rainbow was a child born of a woman who lived with a water man. Whenever the child cried he acquired several colors and stopped the rain.

The other tales gathered by Nordenskiöld have no connection with cosmology; they are merely stories in which monstrous beings or spirits play a leading part. For instance, a man was swallowed by

a serpent and escaped by cutting its heart. A man was killed by a huge serpent, but was avenged by his younger son who, transformed into an eagle, piled up four rocks as big as mountains and killed the serpent on top of them. A woman married a jaguar who at first was kind to her relatives but later wanted to eat them. The jaguar, induced by deceit to climb a tree, was killed. Men plucking chima fruits were pursued by a ferocious jaguar, who was none other than the spirit of the chima tree, which does not like people to eat his fruit before it is ripe.

ESTHETIC AND RECREATIONAL ACTIVITIES

Games.—Little *Chiman* girls played with wooden dolls carved of light cordia wood; boys, with toy canoes and utensils. Children produced a variety of noises with miniature gourd rattles, buzz-disks, and homemade pin-wheels, and, like most Indians of the region, played with shuttlecocks made of maize leaves.

Musical instruments.—The only *Chiman* musical instrument illustrated in the literature is a quena or notched flute made of a deer metatarsus (Wegner, 1934 a, pl. 24, fig. 1).

Narcotics.—The *Chiman* were fond of chewing tobacco and carried their quids behind their ears.

Beer was brewed of maize, manioc, and bananas.

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LEKO

The *Leko* (*Chuncho*) Indians constitute an independent linguistic family. They occupied the entire basin of the Kaka (Guanay) River and its tributaries, the Tipuani, Mapiri, Turiapo, and Yuyo Rivers. That a branch of the Beni River between 13° and 14° S. lat. is called Rio de Lecos may indicate a wider distribution.

There are several references to the *Leko* in the account of a Spanish missionary, Miguel Cabello de Balboa (*in* Maurtua, 1906, vol. 8, pp. 140-141), written in 1594. At that time these Indians appear to have been friendly to the Spaniards, for this missionary asked them to accompany him as porters in his expedition. In 1621, Fray Gregorio de Bolívar (*in* Maurtua, 1906, vol. 8, p. 214) placed the *Leko* on the Cacamayo River (Kaka, or Huanay River), 25 leagues from Camata. According to this source they were not numerous; barely 60 families

were distributed in 9 villages. They traded with the Spaniards, but killed or robbed them whenever possible. About 1617 a sergeant of Pedro de Legui Urquiza's expedition attempted to conquer the *Leko*, but was defeated and killed. The *Leko* figure prominently in the various official reports on the natives of the Province of Apolobamba after the Franciscans settled there in 1680. They are said then to have numbered around 800 people distributed in 8 or 9 villages. They were suspected of cannibalism (Mollinedo *in* Maurtua, 1906, vol. 12, pp. 76, 82, 87, 97). One of the first missions founded among the *Leko* at the end of the seventeenth or the beginning of the eighteenth century was destroyed by Indians.

Among the 600 Indians at the Mission of Concepción de Apolobamba in 1690, some spoke the "*Leka*, or *Lapalapa* language." The Mission of San Antonio de Atén was started in 1736 with 380 *Leko* Indians, who were later taken to the missions of Apolobamba and of Santa Cruz, but, after clashes with the *Apolista*, they were returned to Atén in 1758, when 45 more *Leko* were added to their number. The *Ateniano*, or Indians of the Mission of Atén, were stated to be *Leko* in several Spanish documents, although D'Orbigny (1839, vol. 1, p. 374) had classified them as *Takanan*.

In the beginning of the nineteenth century, most of the *Leko* were concentrated in the Mission of Huanay at the junction of the Mapiri and Tipuani Rivers. In 1906, the *Leko* numbered about 500.

Aboriginal *Leko* culture is almost unknown.

Leko staple foods were maize and bananas. Fish were shot or drugged with soliman tree (*Hura crepitans*) sap. The tree was tapped, the sap allowed to flow on the ground, and the soil, impregnated with poison, was thrown into calm waters. They smoked or dried surplus fish. The favorite drink was peanut beer.

The *Leko* were skillful boatmen who specialized in transporting passengers and merchandise on the Beni River. They descended the river on rafts made of light, corky palo balsa logs, pinned together with palm spikes. Three of these rafts bound together with stout cross logs tied with strips of bark or vine formed a type of craft called callapo.

The *Leko* had changed their style of houses before they were described by travelers. Later huts, each built for a single family, had steep pitched roofs and bamboo walls. The main furniture was a sleeping mat.

Formerly, the *Leko* wore long sleeveless shirts, sometimes dyed with the violet juice of uchuri (*Picramnia lindeniana*), and tied a piece of cloth around their heads. Their only ornament in recent times was a band necklace of bright beads, strung and arranged in

simple patterns. Men had long hair. They painted themselves with rucu and genipa (*Genipa americana*).

Arrow shafts were made of *Gynerium saggitale* stems and were tipped with bamboo blades or with palm-wood rods. A Spanish officer, Juan Recio de Leon (see Maurtua, 1906, vol. 6, p. 222), who in 1623 met a war party of *Aguachile* and *Leko*, says that they were armed with "bows, arrows, clubs, and shileds."

The couvade is reported among the *Leko* by a recent authority (Pauly, 1928, p. 114). Immediately after the child's birth, the father went to bed and pretended to suffer violent pains. The mother resumed her daily work.

A girl's parents suggested marriage to her prospective husband, and subsequently expected him to support them.

The bark of the guapi (*Guarea trichilioides*), a good emetic, and two oxalis (*Guaquaruru hembra* and *G. macho*), which were said to affect sexual functions, were prominent in *Leko* pharmacopoeia.

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APOLISTA, OR LAPAČU

In the ancient Mission of La Concepción de Apolobamba, in 1908, Nordenskiöld collected a short vocabulary of a language spoken only by a few individuals, in a population now completely *Quechua*. A comparative study by Créqui-Montfort and Rivet (1913 c) shows that this little-known language contains a sufficient number of *Arawak* words to justify classifying it as *Arawakan*, of which the *Apolista* were the westernmost representatives.

Little is known of the *Apolista*; even their name has been coined only a hundred years ago by D'Orbigny when he found 2,775 of them in the Mission of Apolobamba (founded in 1690 by Fr. Pedro de Sanz de Mendoza) and 841 in the Mission of Santa Cruz de Valle Ameno (founded in 1720). Armentia (1887, p. 5) states that the *Apolista* language was spoken in the Mission of San José near Tumupasa, but that in 1871 only two Indians remained who could speak it.

Who were the *Apolista*? The Mission of La Concepción de Apolobamba had Indians speaking three different languages when it was founded: the *Aguachile*, the *Leko*, and the *Pamaino*. The last came from the Tuichi and Beni Rivers and probably spoke *Takanan*, which, like *Leko*, was supplanted by *Quechua* in the Mission.

The *Aguachile* are always listed with the *Leko* as the main tribes of the district of Apolobamba. In 1678 the *Aguachile* are said to have numbered about 1,000 and to have lived in 16 villages (see "Información hecha por el licenciado Don Andrés de Mollinedo," etc. in Maurtua, 1906, vol. 12, p. 76 and passim). The limits of their habitat cannot be defined accurately, but there is a strong possibility that their territory must have extended to the region where the two Missions of Concepción de Apolobamba and Santa Cruz de Valle Ameno were founded. The bulk of the *Aguachile* tribe seems to have occupied the mountainous ranges called Altuncama or Chiru Choricha between the Beni and the Tuichi Rivers. Judging from their geographical distribution, *Aguachile* and *Apolista* were the same tribe.

REFERENCES

Armentia (1887, p. 5), Créqui-Montfort and Rivet (1913 c), Mollinedo (in Maurtua, 1906, vol. 12, p. 76 and passim), D'Orbigny (1839, vol. 1, pp. 381-383), Recio de Leon (in Maurtua, 1906, vol. 6, p. 222 and passim), Relación y descripción de las misiones y conversiones de infieles . . . (1886, p. 13).

THE TAKANAN-SPEAKING PEOPLES

TRIBAL DIVISIONS

The *Takanan*-speaking tribes occupy a continuous territory which includes the upper course of the Tahuamanu (Orton), Abuná, and Aquiry (Capechene) Rivers, the Madre de Dios River between 67° and 68°35' W. long., its tributaries, the Tambopata and Heath Rivers, the Beni River from 12° to 15° S. lat., and its tributaries, especially the Madidi and the Tuichi Rivers. The *Takanans* are divided into a great many tribes and subtribes which are little known either linguistically or ethnographically. These were classified by Créqui-Montfort and Rivet (1921-1922, vol. 13, pp. 91-100) on the basis of the available linguistic material.

The *Araona* and *Kaviña* are so intermixed with the *Takanans* that it is impossible to treat them separately, although certain groups are pure *Araona* and other pure *Kaviña*.

The *Araona* live on both sides of the Manuripe River, not far from the Madre de Dios River, and on both banks of the latter, above the Genechiquia River, which separates them from the *Pakaguará*. Other *Araona* groups are settled at the headwaters of the Tahuamanu (Orton), Datimanú, and Abuná Rivers, on the Karamanu River, a tributary of the Abuná River, and on the Jua River. The bulk of the tribe was on the Tahuamanu (Orton) River. Their main subtribes are listed by Armentia (1887, pp. 53-54) as follows: *Beyuma*, *Buda*, *Cahoco*, *Cama*, *Camaya*, *Camoavi*, *Canamary*, *Capa*, *Capanary*, *Capu*, *Chumu*, *Cuesi*, *Curupi*, *Dejabai*, *Ecuary*, *Eno*, *Giry*, *Guagima*, *Habuvi*,

Hamapu, Huary, Huarymodo, Ino, Isebene, Jicho, Machuvi, Manipo, Mapumary, Marani, Maru, Masatibu, Mayupi, Moyana, Odoary, Sabatini, Sara, Tade, Taranu, Tuama, Tuno, Uawi, Uranico, and Yuma.

The *Capechene* (*Kapaheni*) of the Aquiry River and the lower Irariapé River and the *Machui* must also be included among the *Araona* subtribes. In the last part of the nineteenth century there were about 1,500 *Araona* and 800 or 1,000 *Capechene*.

The *Kaviña* or *Cavineño* Indians were moved in 1770 (or 1785?) by missionaries from the left side of the Madre de Dios River to the ancient Mission of Cavinás on the Madidi River. Later, the *Kaviña* were settled in the new Mission of Cavinás on the Beni River. In 1832 there were 1,000 *Kaviña* at Cavinás, but only 153 in 1886. The 218 *Kaviña* whom Nordenskiöld (1924 a, p. 266) saw in 1913 in the Mission of Jesus de Caviña on the Beni River had given up all their native culture except a few isolated objects and customs. These Indians still spoke a *Takanan* dialect, but claimed that they had acquired it recently and formerly had used the *Aymara* tongue. This erroneous belief originated in the curious fact that some *Kaviña* words were obviously borrowed from *Aymara*. (They did not borrow from *Quechua*, although their proximity to the *Quechua* would seem to favor borrowing from this source.) A few cultural facts suggest that the *Kaviña* might formerly have belonged to a different linguistic stock and have adopted a *Takanan* dialect in more or less recent times.

The *Guakanahua*, the *Chama*, and the *Tiatinagua* were perhaps subtribes of a single large tribe which I propose to call *Tiatinagua*, following the nomenclature of the early missionaries.

The *Guakanahua* (*Guarayo*) were established in the vicinity of Ixiamas and Cavinás, around the headwaters and on the course of the Madidi River, on the Undumo River, and along the mountains between San José and Tumupasa; they extended almost to Carabaya.

The *Chama* visited by Nordenskiöld on the Madidi River were a subtribe of the *Guakanahua*.

Tiatinagua (*Tambopata-Guarayo, Huanayo, Baguaja* or *Baguajairi, Quinaqui, Mohino, Chuncho, Echoja*) were to be found on the upper Tambopata River above the mouth of the Távara River between Astillero and Marte. There are *Tiatinagua* groups between the Inambari and Tambopata Rivers. The so-called *Guarayo* of the Heath River and the *Echoja* at the headwaters of the Heath River are subtribes of the *Tiatinagua*. Labré (1889, p. 499) mentions "*Guarayú*," related to the *Araona*, on the upper Abuná River.

In 1905 the number of *Tiatinagua* on the Malinowsky River was about 400-500. Those of the Tambopata River, from the La-Torre River to Echainapa, on the upper Távara River, were estimated at

about 300–400. (Nuevas exploraciones en la hoya del Madre de Dios, 1905, pp. 22, 116, 132.)

The *Maropa* originally inhabited the banks of the Beni River south and west of the *Takanans* and east of the *Kayuvava*. Later, they were transferred to the Mission of Reyes. They probably were closely related to the *Chirigua* (*Chiriba*, *Chiribi*) of the Mission of Santa Buenaventura, who came from the country adjacent to Reyes and San Borja.

The *Takana* proper were a tribe or subtribe living north of the Tuichi River, a tributary of the Beni River, but this name is applied also to several other groups which were closely related to them and inhabited the same area. These other groups are the *Yubamona*, *Pamaino*, *Yabaypura*, *Pasaramona*, *Babayana*, *Chiliuvo*, *Toromona*, *Uchupiamona*, *Saparuna*, *Siliama*, *Tumupasa* (a dialect known as *Marakáni*), and *Ydiama* (a dialect spoken at Ixiamas).³ Most of these subtribes were scattered along the Tuichi River. Almost all the Indians settled in the Missions of Buenavista, San José de Uchupiamonas, Tumupasa, and Ixiamas came from that region and belonged to these various groups.

The *Toromona*, who occupy the plains near the Carabaya Mountains and the territory between the Beni, the Madidi, and the Madre de Dios Rivers, were described by D'Orbigny as "wild *Takana*." It has been impossible to locate exactly the *Guariza* and *Sapibokona*, some of whom were established at Reyes. The first formed part of the Mission of San Antonio de Ixiamas and the second the Mission of Santos Reyes. The *Sapibokona* probably must be identified with the *Maropa* who lived in the same region. The *Mabenaro* inhabited the forests north of the Madre de Dios River about the headwaters of the southern tributaries of the Manuripe River (12°15' S. lat.).

Population.—When the Mission of San José de Uchupiamonas was founded in 1716, it had 600 Indians. There were 2,500 Indians in Ixiamas Mission in 1721. In 1832, 1,028 Indians remained in Ixiamas, 73 in San José, and 1,170 in Tumupasa. In 1886, there were 1,200 Indians in Ixiamas, 1,200 in the Mission of Tumupasa, and 150 in San José. D'Orbigny estimated that the *Toromona* numbered 1,000. D'Orbigny (1839, vol. 1, p. 375) classifies the 2,033 Indians of the Mission of Atén as *Takanans*, but some of them might have been *Leko* or from other tribes. The same author places the total number of *Takanans* in 1831 at 6,304. In the same year, the *Maropa* of the Mission of Reyes numbered 900, but Nordenskiöld (1924 a, p. 160)

³ Giglioli (1906, p. 227) mentions on the left side of the Madre de Dios the following *Takanan* tribes: *Yamaluba*, *Hinapari*. Actually, the latter (usually called *Inapari*) are *Arawak*-speaking Indians.

states that there were approximately 1,500. Hassel (1905, p. 40) undoubtedly exaggerates when he puts the *Tiatinagua* at 3,000.

HISTORY

The first contacts of *Takanan*-speaking Indians with Europeans go back to the first half of the sixteenth century. Soon after the expedition of Pedro de Candia to Opotari in 1539, Pedro Anzules de Campo-redondo, in a bold attempt to discover the fabulous land of the *Mojo*, entered the territory of the *Takana* tribe from Ayaviri and Carabaya and, passing on, reached the Beni River.

It is almost impossible to determine accurately the itineraries of the several expeditions from Peru to the tropical forests of the east undertaken by laymen and priests during the sixteenth century, but probably most of these explorers crossed regions inhabited by *Takanan* Indians. The famous Maldonado⁴ expedition of 1567 established close contacts with the *Takanans*. One of Maldonado's lieutenants founded a town in *Toromona* territory and lived for many months on very friendly terms with the Indians, but finally he and his followers were slaughtered by the Indians because of the misdeeds of another conquistador. They spared only a goldsmith whom they forced to remain among them to make iron tools. Despite the slaughter, Maldonado subsequently returned and was well received by the main chief of the *Araona*, who escorted him safely to Carabaya. In 1593, Miguel Cabello de Balboa went as far as Ixiamas and Tumupasa. Referring to the *Takana*, he says, "they were very particular about their food and drink, exceedingly clean, fond of perfumes, poor and therefore courageous, always carrying bows and arrows, and haters of liars and thieves—who do not exist among them" (Cabello de Balboa, in Maurtua, 1906, pp. 142-143).

The first journey to the *Takanan* country which resulted in a positive gain for anthropology was that of Fray Gregorio Bolívar in 1621 (Bolívar, in Maurtua, 1906, pp. 205-243). Although he describes all the Indians of this territory indiscriminately as *Chuncho*, he includes among them mainly *Takanan* tribes, such as the *Uchupiamona*, *Ayaychuna*, and *Chivamona*.

The natives of the ancient Province of Apolobamba were, with the exception of the *Aguachile* (*Apolista*) and the *Leko*, mostly *Takanans*. The first town in the region was Nuestra Señora de Guadalupe, founded in 1615 by Don Pedro de Legui Urquiza, who also established the Mission of San Juan de Sahagun de Mojos. The

⁴ Información de méritos y servicios de Juan Alvarez Maldonado, titulado descubridor de Nueva Andalucía, Chunchos, Mojos y Paititi, acompañada de una relación de su descubrimiento. Años 1570 à 1629. In *Juicio de límites entre el Perú y Bolivia*, vol. 6, pp. 1-104. See Maurtua, 1906.

spiritual conquest of Apolobamba began, however, at the end of the seventeenth century with the foundation of several Franciscan missions. These were:

San Juan Bautista de Buenavista or La Plata, 1680 (*Siliama* and *Pamaino* Indians from the Tuichi River and its tributaries).

La Concepción de Apolobamba, 1690 (*Leko*, *Aguachile*, and *Pamaino*).

La Trinidad de Iariapu or Tumupasa, 1713 (*Takana*, *Markan*, *Saparuna*, *Pamaino*, *Chiliuvo*, *Toromona*, and *Araona*).

San José de Uchupiamonas, 1713 (*Tumupasa*, *Isiama*, and *Apolista*).

San Antonio de Ixiamas, 1721 (*Takana*, *Araona*, *Markani*, *Toromona*, *Huawayana* and *Guarisa*).

San Antonio de Atén, 1736 (*Leko* and later *Takanan*-speaking Indians).

In the region of Carabaya, missionary work started in 1654. But many baptized Indians when left to themselves, reverted to paganism. In 1678 Franciscan missionaries visited the *Takanan* Indians of the region of Carabaya to investigate the prospects for future missions. During this journey they met *Isiama*, *Sariona*, and *Pasiona* Indians who were on their way to Carabaya to trade with the Spaniards. An *Araona* chief, prompted by the missionaries, destroyed the idols which he kept in a temple and replaced them with the image of a saint. From the *Araona*, who lived in about 20 villages, scattered in an area of 40 leagues, the explorers received some information on the *Toromona* "who were numerous, had four chiefs, and on whose territory the other Indians went to gather almonds (Brazil nuts) which they traded" (Maurtua, 1906, vol. 12, p. 45).

The work of the Franciscan missionaries among the *Takanan* Indians was continued with few interruptions up to the present. The most famous among the missionaries to the *Takanan* Indians was Father Nicolás Armentia, who explored the basin of the Madre de Dios River and who is one of the main authorities on the ethnography and history of the area.

Quechua was spoken by many *Takanan* Indians who in the seventeenth century came to Carabaya. In the missions of Apolobamba, the Franciscans favored the adoption of that language to replace the *Takanan* dialects.

Languages.—Between the grammars of the *Takanan* and *Panoan* dialects there are a great many resemblances, in spite of lexicographical differences. The *Takanan* vocabularies contain a high percentage of *Arawak* words. Créqui-Montfort and Rivet (1921-1922, p. 147) are inclined to consider the *Takanan* language as *Arawak* dialects which have been strongly influenced by *Panoan* languages.

SUBSISTENCE

Farming.—All the *Takanan*-speaking tribes practiced agriculture. The fields of the *Araona* and of the *Tiatinagua* were generally small;

those of the *Tiatinagua* averaged 164 feet (50 m.) by 66 feet (20 m.), but Nordenskiöld (1905, p. 282) saw a *Tiatinagua* field that was 492 feet (150 m.) by 246 feet (75 m.). *Tiatinagua* clearings were scattered and the various groups constantly traveled from one to another. The fields were dispersed because there were few places suitable for cultivation and because natural resources were scanty, making it necessary to supplement the produce of farming with game and fish. The *Tiatinagua* preferred to make clearings in tracts covered with bamboo rather than with trees, because it was difficult to fell the latter with stone axes. The *Tiatinagua*, in addition to their regular plantations, had plots of bananas and plantains along the rivers where they hunted and fished during certain seasons.

Every *Tiatinagua* plantation had rows of banana and plantain trees, between which grew yuca, maize, sweetpotatoes, hualusa (*Colocasia esculenta*), gourds, tobacco, cotton, cayenne pepper, and sugarcane. The same plants were probably cultivated by all the other tribes of the *Takanan* linguistic family. According to Armentia (1887, p. 57), the *Araona* raised, in addition to the plants listed above, papayas and two kinds of tubers: one he calls agipa and the other he describes as the root of a creeper. Only the *Araona* cultivated coca. Beans and peanuts, though not specifically ascribed to any tribe, are common foods among the natives of the region.

Collecting wild food.—The *Araona*—and probably all the other *Takanan*-speaking groups—depended greatly on wild food, such as the fruits of several palm trees (*Euterpe oleracea*, *Enocarpus pataua*, *Attalea humboldtiana* and *Attalea spectabilis*, *Bactrix marajá*, etc.) and Brazil nuts. The last are repeatedly mentioned in sixteenth-century sources as the most important food of the *Takanans*, especially of the *Toromona*, who not only consumed enormous quantities themselves but traded them to the Indians in the mountains. The *Araona* collected large quantities of honey. During the dry season the *Tiatinagua* and *Capechene* gathered turtle eggs. All the Indians of that area greatly relished female cuqui ants (*Esciton*), whose abdomen full of eggs was considered a delicacy.

Fishing.—The *Takanan* tribes relied considerably on fish. At the beginning of the dry season they captured with their bare hands thousands of fish left stranded by the receding floods in pools or in low water. They also shot fish with bows and arrows. The *Araona* and *Tiatinagua* took innumerable small fish in rectangular enclosures placed across streams. To catch huge siluroid fish, the *Tiatinagua* used a wooden hook that is unique in South America and consists of a shank with two wooden barbs resembling an anchor. The *Takanans* drugged fish with the milky sap of the manuna or soliman tree (*Hura crepitans*).

Hunting.—*Tiatinagua* men hunted in large groups, encircling a wide area and driving the game toward a common center where they killed it with bows and arrows. Dogs were trained to stalk various game animals. The *Araona* are said to have been capable of attracting tapirs by imitating the cry of an eagle which lives in symbiosis with these animals. Game was shared equally by all members of the community.

Two spring traps of the *Kaviña* Indians illustrated by Norden-skiöld (1924 b, figs. 20–21) are based on the same principle: A noose attached to a bent rod (the spring) is stretched within an enclosure. In the first trap the trigger, which holds down the spring, is released when a bird alights on a transverse rod; in the second, a rodent trap, the spring flies upward when the prey finishes nibbling a manioc tuber. In a third trap the noose is placed in front of an opening into the enclosure, so that the rodent releases the spring when it steps on a peg.

The *Kaviña* rubbed their eyes with *visisapa* leaves before going on a hunting expedition. The *Tiatinagua* kept as trophies pieces of skin of the animals which they had killed.

The vagabond life of the *Takanan* tribes limited pets to a few monkeys and parrots. The *Tiatinagua* had chickens and dogs. Dogs were not introduced to the Indians of this region until the nineteenth century. The modern *Maropa* are good horsemen and cattle herders.

Food preparation.—Bananas and plantains, which constituted the staple foods of all *Takanans*, except perhaps the *Araona*, usually were roasted. Yuca tubers were grated on thorny palm roots. Maize was ground between two stones or in a wooden trough with a big semicircular wooden slab. The *Chama* lacked any sort of hand mill and never prepared maize flour. All *Araona* and *Kaviña* households had gourds and many pots. Some *Araona* jars held as much as 25 gallons. The *Araona* roasted maize or coca leaves in huge pans 4 feet (1.2 m.) in diameter. As the *Tiatinagua* and *Chama* had little or no pottery, they usually roasted or steamed food, especially fish. Steaming was accomplished in a green bamboo joint placed on the fire; the food became cooked before the vessel burned through. The Indians of Apolobamba, mostly *Takanans*, baked game and fish in earth ovens.⁵ The *Kaviña* and the *Móvima* were the only tribes in the area to support pots over the fire on three clay stumps, a device common among Indians of the upper Amazon and northwest Brazil. The

⁵ "Todo género de carne volatil terrestre, y el peje acuatil, lo comen asado, y no cocido, por carecer de ollas, y el modo es después de desplumada la ave y quemado el pelo del animal y escamado el peje, lo envuelven en hojas de árboles, forman fosa en la tierra que supla de horno, y cargan leña; hecha la hoguera asan y cuecen la vianda" (Relación y descripción de las misiones y conversiones de infieles . . ., 1836, p. 4).

Tiatinagua gave bones to children, who broke them to extract the marrow. Any surplus of meat was roasted and smoked on a rectangular babracot and kept for several days. Instead of salt, the *Tiatinagua* added the ashes of maize stalks to food. The *Araona* usually cooked their food for a whole night, whereas the *Tiatinagua* ate it half raw. When traveling, the *Araona* ate maize flour mixed with roasted and ground Brazil nuts. They also ground dry fish into a flour which they stored for the rainy season.

HOUSES AND VILLAGES

The *Araona* lived in large communal huts, averaging 60 feet (18.2 m.) long by 20 feet (6.1 m.) wide, that sheltered as many as 20 families. The wooden frames of the huts were lashed with missa fibers and covered with thatch of jatata leaves that were so skillfully imbricated that they were not only waterproof but also endured for many years. The *Araona* spent their nights, however, in small conical cabins that were tightly closed to keep out mosquitoes and vampire bats.

In the seventeenth century, among the *Maropa*, from 100 to 200 people were quartered in a single hut (Recio de Leon, *in* Maurtua, 1906, vol. 6, p. 244).

Tiatinagua and *Chama* houses were more temporary, being either simple windbreaks made of a single row of large leaves stuck into the ground or flimsy vaulted structures made of stalks of *Gyncrium saccharoides*, covered with leaves and branches. The ground plan and size of a hut depended on the number of families using it. Nordenskiöld (1905, p. 291) saw a *Tiatinagua* hut with an oval ground plan that was 60 feet (18.2 m.) long and 9 feet (2.7 m.) wide, and sheltered 8 families. Some *Araona* villages had up to 200 inhabitants, others an average of 60.

The *Araona*, *Chama*, and *Tiatinagua* slept on the bare ground, which they sometimes covered with soft sand. A stone or log served as a pillow. The *Araona* also used pieces of bark as beds and seats. From the roof of an *Araona* hut hung wooden hooks from which they suspended their bags. Arrows were leaned against a tree stump.

DRESS AND ADORNMENTS

If the occasion required it, all *Takanan* men dressed in long sleeveless shirts made either of bark cloth or of cotton and generally dyed with rucu. Armentia (1887, p. 61) mentions a sort of loose cotton belt that *Araona* men wore. Women wrapped a bark or cotton loincloth around their waists and often threw a square shawl over their shoulders. *Araona* men, women, and children wore shell nose ornaments, which among the *Tiatinagua* were crescent shaped. The

Takanans also inserted feathers or animal teeth in the perforated nasal septum. Some *Tiatinagua* wore a little wooden plug in each corner of the mouth. Necklaces were commonly made of seeds and nuts, often trimmed with feathers, and sometimes of snails, animal claws, and bones. The most popular *Araona* man's necklace was strung with wild boar teeth, whereas *Tiatinagua* men preferred monkey teeth. All *Takanans* arrayed themselves in beautiful feather headdresses. The *Araona* stored their feathers in bamboo joints; the *Tiatinagua* kept them in conical baskets folded with bark cloth. They exposed feathers to smoke to prevent them from being eaten by moths.

The *Araona* wore their hair in a queue, and washed it with a soapy fruit of the susuyo. The *Tiatinagua* combed it with a stick.

The *Tiatinagua* did not paint designs on their bodies but smeared rucu on their faces, arms, and legs. Farabee (1922, p. 156) states that the *Tiatinagua* flattened their children's heads by tying a board on their foreheads.

TRANSPORTATION

Tiatinagua women used a large carrying basket with a tumpline. Babies, supported by a sling of bark cloth, straddled their mothers' hips.

The *Takanans* traveled on water either in dugouts or on rafts. *Tiatinagua* dugouts were 33 feet (10 m.) to 50 feet (15 m.) long and 15 inches (38 cm.) to 28 inches (70 cm.) wide. According to Farabee (1922, p. 154), the *Tiatinagua* "cross the rivers on balsas, made of two logs fastened together by chonta palm pins driven through them." Pauly (1928, p. 127) mentions *Araona* canoes made of Brazil-nut tree bark shaped by heating, which were punted with bamboo sticks or regular paddles.

MANUFACTURES

Bark cloth.—The *Takanans* prepared bark cloth by detaching large pieces of bark from matapalo, mamani, and bibosi trees, then vigorously hammering the fibrous layers with a grooved wooden mallet. The patches thus obtained were washed several times, thoroughly wrung, dried, and then sewn together with a needle. The *Araona* used bone needles with large eyes.

Spinning.—The *Tiatinagua* and *Chama* had Bakairi-type spindles, i. e., spindles that rotated by themselves after being set in motion. The *Tiatinagua* made whorls of potsherds, although they had practically no ceramics; the whorls of the *Chama* were of stone. The distal end of the spindle turned in a shell.

Weaving.—The only *Takanan* loom described in our sources is a specimen obtained by Nordenskiöld (1924 b, map 26) at Tumupasa.

The method employed is more aptly described as plaiting than weaving. The loom consisted of two horizontal sticks around which a thread was wound in such a way that the separate strands were crossed around a series of mesh sticks. The cloth was formed by recrossing and tightening the threads with the fingers. A similar method was found among the *Moseten*, the *Leko*, and several tribes in the Guianas.

Basketry.—Our knowledge of basketry is limited to the illustrations published by Nordenskiöld (1905, figs. 26–30). The *Tiatinagua* had rectangular baskets of *Gynerium saccharoides* stalks bound together with fine threads. They also wove (probably twilled) carrying baskets and circular fire fans of bast. Some ovoid wicker baskets were woven of tough fibrous strips.

The *Chama* kept their feathers in a mat which they rolled into a conical bundle and covered with bark cloth.

Pottery.—Neither the *Tiatinagua* nor the *Chama* had much pottery, thus contrasting sharply to the *Kaviña* who, though decadent, still manufactured beautiful vessels with painted ornaments and a resin glaze. The *Araona* made many kinds of pottery, ranging from huge jars to small vases, which they carried on journeys.

The *Takanans* seem to have made containers both of gourds (*Lagenaria vulgaris*) and calabashes (*Crescentia cujeté*).

Weapons.—*Tiatinagua* bows were of palm wood $6\frac{1}{2}$ feet (2 m.) long. They had a flattened, rectangular cross section and a fiber bowstring. Hunting arrows had lanceolate bamboo heads or sharp chonta tips, one side of which had one or two rows of barbs. Fishing arrows had either a simple jagged point or three plain prongs. Arrow feathering consisted of two half feathers set spirally to the *Gynerium* shaft and bound tightly with cotton thread smeared with wax. Arrows often were trimmed with feathers or animal hair or had a binding placed carefully around the butt. The absence of bird arrows among the *Tiatinagua* is worth mentioning. In shooting, an arrow was held between the thumb and the index finger, and the string pulled with the other three fingers.

Miscellaneous implements.—*Takanan* knives were of hard chonta (*Bactris ciliata*) wood.

Axes were deeply notched near the butt end and lashed to a wooden shaft; two wooden splinters reinforced the binding. *Araona* stone axes were glued with resin as well as lashed.

SOCIAL AND POLITICAL ORGANIZATION

Each *Tiatinagua* group consisted of from two to eight families who lived together in a communal hut under a chief. Any *Araona* man who had many relatives and a strong will could become a chief.

He found ready followers among destitute families who were the more submissive as a chief was also the high priest of his community. His subjects were obliged to work hard for him. At his death, a chief was succeeded by his favorite son, but the group often split if the new chief's brother did not want to recognize his leadership. Another source, however (Créqui-Montfort and Rivet, 1921-1922, vol. 13, p. 99), stresses the fact that authority rested with the oldest man in the community, who was called Baba jiodi.

One of the *Araona* villages visited by Labré (1889, p. 499) was ruled by two chiefs, each of whom had several families under his orders. Father Fidel (quoted by Church, 1877, p. 97) states that the *Takanans* had two chiefs, one for peace and one for war.

Economic organization.—Work which required some cooperation was undertaken for a man by his friends and relatives if he were willing to repay them with food.

LIFE CYCLE

Tiatinagua women were delivered in the forest, assisted by two other women, one holding the pregnant woman on her lap, the other receiving the baby. The *Araona* had a small number of traditional names which they bestowed on their babies several months or even several years after birth. The couvade is reported among the *Maropa* and *Araona*.

At puberty, *Tiatinagua* boys had the frenum of the penis cut with a bamboo knife; girls had the hymen slit by a woman using the same instrument. At about the age of fifteen *Araona* boys went through an ordeal which strongly suggests the existence of a specific complex of initiation rites. The priests temporarily blinded them by putting a powder, made of a poisonous creeper, into their eyes. The initiates were then taken to the local sanctuary where their sight returned as soon as their eyes had been washed with the priests' saliva.

The *Kaviña* married at a very tender age; girls were sometimes wed to a boy or a man before reaching puberty. Mothers were said to deflower their daughters by artificial means to prepare them for married life. *Araona* children were married at the age of nine or ten, but the marriage was consummated only after puberty, when a feast was celebrated.

The *Tiatinagua* groups were exogamous. *Araona* men could marry only *Kaviña* women and vice versa. Polygyny was the privilege of *Araona* and *Tiatinagua* chiefs, who might have as many as four wives. Among the *Tiatinagua* these unions were based on mutual consent and were easily broken. Any woman who was not satisfied with her husband or his people was at liberty to return to her own group.

It is rumored that the *Tiatinagua* threw incurable or helpless people

into the river. The *Araona* sometimes hastened the funerals of ailing persons and thus might bury their relatives alive. As the dead were interred in a squatting position, with a rope around their necks, the haste can be explained in part by the desire to avoid rigor mortis. The dead were buried in the huts where they had lived. The *Tiatinagua* placed their dead in an extended position in graves in the forest. All the deceased's possessions were put in the grave. After a death, the *Kaviña* changed the place of the house door to confuse the returning soul. A widower could marry only a widow, and vice versa.

ESTHETIC AND RECREATIONAL ACTIVITIES

Musical instruments.—The *Araona* had bone flutes, probably *quenas* or end-flutes with three stops, which women played during religious ceremonies.

Kaviña panpipes were composed of a double row of tubes (eight and seven tubes) fastened together by a strip of bamboo "wound like a band a couple of times around the entire instrument;" each pipe was further attached by a thread. *Aymara* and *Yurakare* panpipes had the same type of ligature (Izikowitz, 1935, p. 388). Huge bark trumpets, joined together like the tubes of panpipes, which were found among the *Mojo* and the *Itonama*, also were in use in the Mission of Cavina.

Games.—The *Araona* played ball by striking the ball with their stomachs which they protected with bark belts.

Stimulants.—None of the *Takanan* tribes is known to have brewed any fermented drink, though they prepared mushes that could easily ferment. This lack of true alcoholic beverages is a curious exception in an area where most tribes enjoyed several kinds of beer.

The *Araona* chewed coca mixed with *motacu* palm (*Attalea humboldtiana*) or *chameiro* (a creeper) ashes; they kept the mixture in special wooden bowls. Several *Takanan* tribes raised tobacco but did not smoke it.

RELIGION

Gods and spirits.—The main god of the *Araona* was *Baba-buada*, a wind god invested with the dignity of the creator. He was responsible for the change of seasons and set the time for sowing or harvesting crops. Next to *Baba-buada* were many inferior gods or spirits: *Juti Mara Edutzi*, or *Izeti Mara Edutzi*, the Sun God; *Baba Tsutu*, the Jaguar God; *Ageve Edutzi*, the God of Health; *Zia Edutzi*, *Zia Tata*, or *Zia-baba*, the Maize God; *Cuati Edutzi*, the Fire God; *Etesi Edutzi*, the God of Houses; *Ilari-Edutzi*, or *Baba-guaro*, the Wild Pig God; *Baba-farara*, the Thunder God; *Edutzi-yamaiba-pugia*, the God-who-protects-against-alligators; and *Capuari*,

the Death God. These deities were represented by material symbols, such as carved pieces of wood decorated with feather mosaics, and manufactured objects, including spears with wooden heads, arrows and axes, pots, or small black pebbles. The pebbles were kept in little baskets. The carved wood idols represented the Wind, Sun, and Moon Gods; the pebbles represented the Deities of Food, Maize, Yuca, and Bananas.⁶ The image of the god Epymará (the Father of the Gods?) was an elliptic piece of wood.⁷ These idols were placed in square temples located in the middle of the forrest. Temples also were discovered among the *Tiatinagua* (*Guarayo*) of the Abuná River. The interior of a temple was divided into two compartments; one for the symbols of the god, and the other for the dance paraphernalia. Women and children were not allowed to view these sacred objects and were barred from ceremonies. Immediate blindness was the penalty for indiscretion.

Each god had a *yanacona* or special servant who took care of his image and carried it with him when he traveled. These servants or priests had to observe celibacy. The head priest was the chief of the village. Great feasts were celebrated for the gods at sowing time and before the harvest. The members of each family circle chanted prayers almost every night to ask the gods for favors. The *Pamaino* and *Saparuna* Indians placed in the temples the largest maize cobs which they harvested and left them there for a whole

⁶ (Exploraciones y noticias hidrográficas de los ríos del norte de Bolivia, 1890, p. 11). "Los ídolos adorados de la tribu son de tres clases. Tres trozos de madera de chonta, labrados con finura, adornados con bellas plumas y de una vara de altura, ofreciendo estos trozos en su base una especie de mango, forman la primera gerarquía ó clase. La segunda que los Copas llaman la guardia, son 10 lanzas de igual madera, de 2 varas de largo bien pulidas y terminadas en una punta hecha de otra madera muy fina. La tercera clase de divinidades está formada por muchas piedrecitas cuya procedencia no pudimos averiguar. Los ídolos primeros son dioses de los Vientos, de las estaciones, el Sol y la Luna. La clase tercera son dioses de los alimentos, el maíz, la yuca, los plátanos, etc."

⁷ The first description of a *Takanan* idol appears in a document of 1678: "entraron en el adoratorio y casa del idolo, y le sacaron y hicieron pedazos, arrojándole por el monte, y que por los fragmentos se reconoció ser de la semejanza de un hombre, la armazón de madera, y perfeccionado con barro negro. . . ." (Información sobre el estado de las misiones, in Maurtua, 1906, vol. 12, p. 17).

Another image destroyed by missionaries in the region of Apolobamba was: "una cabeza de hombre fabricada de madera, sin más miembros que el pescuezo, el que en fuerza de una rotunda espiga fijaba en un platón, en cuyo medio había un vaso para colocar dicha cabeza de primoroso artificio" (Relación y descripción de las misiones y conversiones de infieles, . . . 1886, p. 7).

In a temple that later was transformed into a Christian chapel, the missionaries saw in 1678, "un bulto grande de la semejanza de persona humana, y á su lado sentada una figura de una culebra grande, y en la pared muchas figuras de demonios, monos y otros animales, que hicieron todos pedazos" (Información sobre el estado de las misiones, etc.; see Maurtua, 1906, vol. 6, p. 20).

Spanish missionaries found in an *Araona* temple feather works, spears, and many other sacred objects. One of the numerous baskets stored in the sanctuary contained four bronze images of Peruvian make, a metal disk, and a fringe symbol of power among the *Incas*. (See Maurtua, 1906, vol. 12, pp. 21, 31, 58-59.)

year. During the feast which took place on that occasion, the male population gathered in the temple to drink.

Although it is impossible to evaluate the accuracy of Father Armentia's account (1887, pp. 63-66), it seems evident that the *Araona* were strongly influenced by *Inca* culture, as shown, for instance, by the existence of a maize god with a *Quechua* name. If we may rely on the testimony of several Spanish explorers of the seventeenth century, actual Peruvian idols and objects were kept in the temples of the *Takanan* Indians.

Nordenskiöld (1924 a, pp. 288-305) collected a great many *Kaviña* and *Tumupasa* myths and tales that throw some light on religious beliefs. It is rather puzzling that this mythology fails to mention the great gods of the *Araona*, although the *Kaviña* and *Araona* are practically the same tribe. This myth material shows, however, that many *Araona* gods were merely lesser deities or spirits that watched over animal species and lacked real religious importance.

The *Kaviña* and *Tumupasa* distinguished two different kinds of spirits: the *Ishausa*, or nature spirits, and the *Chokíhua*, or ordinary ghosts. There were a great many *Ishausa*, each differing in appearance and in power. The myth texts imply that every animal species was represented by a special spirit who acted as its protector. These spirits either resembled ordinary men or had the appearance of a huge animal of the species represented. The alligator spirit had a double tail; the turtle spirit was a gigantic turtle; and the frog spirit was a huge frog. The wild-hog spirit was fond of kidnapping people in order to enjoy their company; the monkey spirit prevented excessively eager hunters from destroying his people. The master-of-the-partridges was a serpent who once had made a bargain with a hunter that the latter should be allowed to kill as much game as he wished if he spared the partridges. It was only after the serpent had been killed by mistake that animals became as elusive as they are today. The jaguar spirit was as big as a cow and had a black neck and black feet. Some spirits made their abodes in trees, which consequently could not be felled without danger. There were also spirits in the streams who kidnapped and ate women. Rubber trees were inhabited by spirits who punished those who tapped their sap unless forced to do so by white people. Meteorological phenomena were caused by spirits. For instance, the wind was a small boy who would throw a rubber ball and cause thunder.

The *Tiatinagua* believed in two spirits. *Isotiga*, who had the appearance of a white man, was good and made the plants grow. *Ikwiki*, a small black man, was quite harmless, but, in spite of this, was strongly disliked by the Indians, who shot at him.

Shamanism.—*Araona* priests were also doctors and knew a great many drugs, which Armentia lists (1887, p. 65) under their native names. With some tobacco in their mouths, they sucked the blood of persons who had been bitten by serpents. The treatment of any disease consisted in sucking and even biting the body of the patient and then rubbing it with a mixture of powdered tobacco, coca, herbs, and snake teeth. Shamans carried this powder in a piece of bamboo and chewed it before using it. Besides using the magic mixture for curing, a shaman might spit it toward the sky or into a river if he feared a storm or a flood.

Mythology and learning.—The *Kaviña* described the sun as a man who, although married to a jaguar woman, stole the wife of a spirit. The second wife bore a baby that was so hot nobody could hold it.

The sun had sexual intercourse with the moon, who stole vegetables from his garden.

The *Kaviña* personified fire as a woman who was insulted when any pregnant woman urinated on a fire. Once, when insulted in this manner, she withdrew her assistance from mankind for a long time. Later, she gave some fire to a man whom she liked.

The widely spread story of the flying human head is reported among the *Kaviña*. After killing animals and men, the head was supposed to have gone to the sky and was probably identified with meteors and comets.

Eclipses were interpreted by the *Tumupasa* as short periods of mourning, when the sun painted his face with *genipa*. The spots on the moon, a woman, were thought to be *genipa* marks put on her face by a star who had invited her to a beer party.

In a *Tumupasa* tale, the frog spirit owned fire. When an old man asked him for some, he consented only on the condition that nobody else was to use it. The first time the fire was stolen from him, the frog managed to put it out. Later, the frog was killed, but was resurrected under several disguises: a woman, a fish, and other forms. In spite of these ruses, he was killed every time he attempted to regain his fire. Finally the frog succeeded in poisoning the beer of his adversaries, the old man and his wife.

The only recorded tale of the *Maropa* Indians is the story of a boy who married a doe who had transformed herself into a woman. Later, she deserted her husband to resume her former shape.

The *Araona* kept some record of their history by means of maize cobs representing the fields which they had cultivated in the past and the settlements in which they had lived. They also calculated time with pebbles, each of which stood for a month.

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THE SOUTHERN PANOANS

The *Southern Panoans* are divided into two groups: the *Southeastern Panoans*, which consist of the *Pakaguará*, *Karipuná*, *Chakobo*, *Sinabo*, and *Kapuibo*; and the *Southwestern Panoans*, which include the *Arasa*, *Atsahuaka*, and *Yamiaka*. These two *Panoan* groups are separated by *Takanan*-speaking people.

THE SOUTHEASTERN PANOANS

TRIBAL DIVISIONS AND HISTORY

The *Pakaguará* (or *Pakavara*) lived on both sides of the Beni, lower Madre de Dios, Mamoré, upper Madeira, and lower Abuná Rivers. Formerly they extended farther to the south, for the Mission of Santiago de Pacaguaras on the Madidi River, above its junction with the Chunini River, consisted of *Pakaguará*. According to Armentia (1887, p. 42), there were groups of *Pakaguará* at Sinusinu, San Lorenzo, Biata, Mamorebey, Jenechiquía, and Jene-suaya. Orton had three subgroups, two of which were exterminated by the *Araona* in 1885. The southernmost *Pakaguará* were pushed toward the north by the *Takanan* tribes.

Créqui-Montfort and Rivet (1913 b, p. 21) regard the *Chakobo*, *Sinabo*, *Kapuibo*, and *Karipuná* as subtribes of the *Pakaguará*. The *Kapuibo* resided along the Biata River, a tributary of the Beni River. The *Chakobo* were split into small units scattered 3 days' walking distance northwest of Exaltación, between Lake Rogoaguado and the Mamoré River. In 1908 Nordenskiöld visited a village north of Lake Rogoaguado. In 1887 two groups of *Chakobo* were on the Ivon

River, one comprising six families and the other four. The *Sinabo* (*Gritones*) inhabited the region called Los Armendrales, near the first rapids of the Mamoré River, and along the Bolivian side of the Guaporé River. The *Karipuná* (*Jaún-avó*) are among the Amazonian tribes mentioned by Acuña (1891, p. 45), who places them and the *Zurina* on the Purús River. Natterer met a *Karipuná* subgroup, the *Jakariá* or *Jacaré-Tapuija*, on the Abuná River, and another subgroup, the *Shenábu* (perhaps *Sinabo*), on the Madeira River above the rapids Cachoeira do Pão. The *Karipuná* had also a settlement near the famous rapids, Caldeirão do Inferno. At the beginning of the twentieth century the few *Karipuná* who survived had retired along the Mutum Paraná River, a right tributary of the Madeira River. Giglioli (1906, p. 219), on the authority of an Italian colonist, Landi, lists the *Pamá* or *Pamaná* Indians as a subgroup of the *Karipuná*. Their habitat was the Caldeirão and São Lorenzo Rivers, both small tributaries of the Madeira River, and the banks of the Madeira between the rapids Caldeirão do Inferno and Girão. D'Orbigny (1839, vol. 2, p. 262) estimates the number of *Pakaguará* at 1,000, Hassel (1905, p. 49) at 2,000.

SUBSISTENCE

The *Chakobo* described by Nordenskiöld had their settlement at the fringe of one of the forest islands so common in the extensive plains of eastern Bolivia. They had cleared a patch of land and cultivated the plants usual in the region. The staples, judging by the extent of their cultivation, were sweet manioc, bananas, and maize. They also grew sweet potatoes, papayas, two varieties of cotton—brown and white—and reeds (*Gynerium saccharoides*) for arrow shafts.

Hunting methods have not been observed. Fish were taken with bows and arrows and with poison, but apparently not with nets.

Manioc was grated on the prickly root of a palm. Wooden mortars were elongated troughs, placed at a convenient height above the ground; in these maize was ground with a heavy wooden slab which had two carved handles at the ends of the upper edge. Among both *Chakobo* and *Pakaguará*, troughs often accommodated several women who pounded their corn at the same time. The *Chakobo* had a rectangular platform babracot. They roasted maize or manioc flour in flat-bottom fire pans. The *Karipuná* have often been described as inveterate geophagists, a habit which may be attributed to the presence of salty earth in their country.

The *Chakobo* made fire by twirling the shaft of a war arrow through a bamboo arrowhead placed on tinder.

VILLAGES AND HOUSES

Of the three houses which formed the *Chakobo* settlement observed by Nordenskiöld, two were large malocas or communal huts and the third was a clubhouse. The huts were rectangular, had side walls and a gable roof, and were thatched with leaves of the motacu palm and of *Heliconia*. There was a small door at each end. The clubhouse, where men stored their weapons, drank, and even slept, especially if unmarried, had an octagonal ground plan. The roof rested on eight wall plates surrounding the central ridge pole, which was supported by two vertical posts. As the sides were entirely open, nothing in the clubhouse could be kept secret, though access to these clubs was forbidden to women. The *Karipuná* men's house was an open sunshade.

Pakaguará houses had no side walls, being like tents, each with a very small door.

The use of cotton hammocks was general among all these tribes. The *Chakobo* hooked their hammocks to house posts whereas other tribes tied them. *Karipuná* wooden benches, carved in animal forms, are highly praised by Acuña (1891, p. 145). The *Chakobo* had small benches made of palm stalks nailed on tree stumps; these were reserved for men.

CLOTHING

Men went naked most of the time, with the penis—among the *Karipuná*, wrapped in a *Heliconia* leaf—fastened against the stomach under a cotton belt. Bark-cloth tunics were worn only on festive occasions; the *Pakaguará* dyed theirs red and violet. The *Chakobo* wore long bast strips around their arms and legs. The *Karipuná* had tight fitting cotton bands, and, under the knees, rubber rings. Necklaces of black seeds were especially popular in all these tribes. For feasts, the *Chakobo* also wore a wide disk made of countless monkey incisors and trimmed with tucan feathers. Around their heads the *Chakobo* tied a bast band or strings of cotton or fiber from which feather tassels hung. These circlets served to hold feathers tucked over the nape. The *Southeastern Panoans* were distinguished from neighboring tribes by a feather tuft or a reed or quill filled with colored feathers which was thrust through the perforated nasal septum. They also inserted wild boar incisors, pieces of bone, or wooden sticks in their ear lobes. According to Father Armentia (1887, p. 43) the *Pakaguará* also pierced their lower lip.⁸ In all *Southeastern Panoan* tribes men cut their hair across the fore-

⁸ Giglioli (1906, p. 223), on the authority of an Italian traveler, states that the *Karipuná* had bone and wooden labrets.

head and wrapped it with a cotton band into a queue. The *Karipuná* are said to have tied their long hanging hair with feather tufts.

In all these tribes women lacked garments. *Chakobo* women covered their pubis with only a *Heliconia* leaf fastened to cotton or fiber strings. *Pakaguará* and *Karipuná* women wore a small front flap or apron, which the latter decorated with feathers. *Chakobo* women's ornaments were less conspicuous than those of men. Women bored the nasal septum and alae for the insertion of feather bundles, but left their ear lobes intact. They wore seed necklaces, chonta finger rings, strips of bark wrapped around their arms and legs, and, occasionally, one or two feathers glued to their long, loose hair. They also decorated themselves with collars of monkey teeth and armlets of feathers or shell.

Both sexes put rucu and genipa on their bodies, usually smearing it but, on rare occasions, making simple, geometric designs. They shaved the hair on their bodies, but only women removed the pubic hair.

TRANSPORTATION

The *Pakaguará* had a few dugout canoes, which accommodated about eight people, but these tribes used mainly bark canoes reinforced along the sides with sticks and kept open by transverse braces that served also as seats. *Karipuná* paddles had a plain handle without a crutch.

MANUFACTURES

Nordenskiöld (1922, fig. 58, 59, *a* and *b*) illustrates two *Chakobo* baskets—a simple twilled carrying basket, rectangular in shape, and a box of sewed *Gynerium* stalks of the type common in the region. The *Chakobo* also used bags of bark cloth for storage.

The *Chakobo* made plain pottery that often bore the imprint of the basket or banana leaves on which the vessel rested while being made. There were three types of vessels—jars, cooking pots, and clay pans with raised edges.

Cotton was carded with a bow and spun with a spindle rolled on the thigh.

The *Chakobo* had long bows with shoulders cut at both ends to hold the fiber string. The arrows, also very long, had two types of head, lanceolate bamboo blades and rods barbed on both sides. Two halved feathers, which were shaped by burning, were tied against the shaft and the wrapping was smeared with wax ("cemented feathering"). The arrow butts were strengthened by the insertion of a small wooden plug. The main weapons of the *Karipuná* were bows of paxiuba-palm wood and arrows with shafts

of ubá reed. According to Acuña (1882, p. 145), the *Karipuná* of the Purús River used beautifully carved spear throwers.

The *Pakaguará* and *Karipuná* had axes with stone heads glued directly to the round handle, without any socket or lashing, by means of the rosin of the *massaranduba* tree, which when dry, is as hard as cement (Giglioli, 1906, p. 225).

For knives, the *Karipuná* used the lanceolate blades of their arrows or sharp-edged river shells; the *Chakobo* used piranha teeth. The latter planed wood with wild pig jaws.

SOCIAL CUSTOMS

Nordenskiöld's *Chakobo* community consisted of nine married couples who seemed to be under the authority of the oldest man. Age was respected. The *Pakaguará* were said to be polygynous.

After the birth of a child, a *Chakobo* father remained at home for several days. Small *Chakobo* children were spanked only when they defecated in the hut.

Chakobo weapons and implements were characteristically undecorated.

The only *Chakobo* toy recorded is a bull-roarer with a stick handle. *Karipuná* bull-roarers were half a meter long. These were too sacred to be sold.

The only *Chakobo* musical instrument was the panpipe. The five pipes were not bound together, but were merely held in the hands. The *Karipuná* had a drum consisting of a pot with a rubber membrane stretched over its mouth.

While dancing, the *Chakobo* men put their hands on each other's shoulders, brandished a short club with an oval blade, or played the panpipe.

Etiquette required that visitors be formally received in the clubhouse, where, starting with the oldest man, they were offered beer. Each man first tasted the beer with his fingers and then drank. It was considered bad manners for guests to bring out their hammocks before they had been urged to do so.

The *Chakobo* consumed enormous quantities of very thick manioc beer fermented by the addition of saliva. They did not smoke tobacco but, like the *Yurakare*, used it to kill *Dermatomya* worms.

The *Pakaguará* counted by first doubling one fist into the palm of the other hand, then repeating "nata" as each finger was successively straightened until the last, when they said "echasu." The count was continued to 20 by pointing to each toe in succession while repeating "nata," then "echasu." Higher counts were accomplished by repetition of twenties.

RELIGIOUS CUSTOMS

Among the *Chakobo* both sexes were shamans. Cures were effected by massage and blowing on the patient.

At death, a deceased adult was placed with all his ornaments in a sitting position in his hut, which later was burned. Women lamented and temporarily discarded their ornaments to demonstrate grief.

The *Karipuná*, if Keller-Leuzinger (1874, p. 124) was not mistaken, buried their dead in large urns within the huts. Bull-roarers were whirled during the funerary ceremonies.

About *Pakaguará* religion, Father Armentia writes (1887, p. 43):

They represent the divinity by the head of a jaguar, of a pig, or of some other animal. They conceal their idols and their rites from foreigners. They call God, Papa-Guara, and their priests, Rohá. They celebrate feasts before sowing and harvesting. They never touch their crops before they have held an inaugural ceremony.

D'Orbigny (1839, vol. 2, p. 264) states that the *Pakaguará* believed in two spirits, a good one called Huara and a malevolent one called Yochina. The *Karipuná* of the Purús River had wooden "idols" that aroused Acuña's admiration.

THE SOUTHWESTERN PANOANS

TRIBAL DIVISIONS AND HISTORY

Formerly, there was only one *Southwestern Panoan* tribe, the *Atsahuaka*, from which the *Yamiaka* later split to become a separate tribe. The *Yamiaka* (*Haauñeiri*) lived on the Yaguarmayo River, near its junction with the Inambari River. At the beginning of the present century their total number was estimated to be 30 or 40. The *Atsahuaka* (*Chaspa*) claimed territory along the Carama or *Atsahuaka* River and the Malinowski River, both tributaries of the Tambopata River, and along the Chaspa River, tributary of the Inambari River. In 1904 there were only 20 *Atsahuaka*.

The *Arasa*, or *Arazaire*, were found on the Marcapata, or *Arasa*, River, a left tributary of the Inambari River. They belonged to the *Panoan* stock though some of these Indians also might have used a *Takanan* dialect. Their total number, according to Hassel (1905), was 500 to 800; according to Cipriani (1902, p. 175), only 20 to 25.

SUBSISTENCE

Collecting.—The *Yamiaka* collected fruits in the bush and turtle eggs from the beaches (Cipriani, 1902, p. 178).

Farming.—Both *Southwestern Panoan* tribes cultivated fields scattered widely along the rivers. The *Yamiaka* opened clearings

by burning fires around the bases of trees and chopping away the charred wood with stone axes. Both cultivated bananas, yuca, sweetpotatoes, gourds, cotton, sugarcane, cayenne pepper, and maize. The *Yamiaka* also raised pineapples and papaws. Although the *Atsahuaka* grew cayenne pepper they did not seem to consume it. All crops except sugarcane were communally owned. Sugarcane received special care, and was often protected by an enclosure. Staples were bananas and, to a less extent, yuca and maize.

Fishing.—The *Yamiaka* were good fishermen, but the *Atsahuaka* lived in a region with only small streams and few fish. The *Yamiaka* used harpoon arrows with two removable elements, a head and an intermediate piece of wood between it and the shaft. Both *Yamiaka* and *Atsahuaka* drugged fish with poison.

Hunting.—The *Atsahuaka* were skillful hunters, with a remarkable knowledge of animal habits and sounds. They stalked game with well-trained dogs. To reach monkeys, which seldom fell from the branches when killed, the *Atsahuaka* climbed with the aid of a bast ring attached around their feet and carried a long wooden hook.

The *Yamiaka* did not eat chickens, which they received from the Whites, but raised them as pets. The *Atsahuaka* were surrounded with tame birds.

Food preparation.—The *Yamiaka* grated bananas on prickly roots. The *Atsahuaka* peeled sweetpotatoes with a flat fishbone. Both tribes cooked in clay pots or in bamboo joints and broiled game on rectangular babracots. If men had to fix the meal, they always roasted the food, whereas women boiled or roasted it.

The *Atsahuaka* prepared a sour mead of honey. The *Yamiaka* brewed banana and yuca beer.

HOUSES

Atsahuaka huts were simple lean-tos covered with imbricated palm leaves, split along the midrib. Sometimes two opposite lean-tos were brought together so as to form a gabled roof. Each family had its own hut. The *Yamiaka*, like the *Takanan*-speaking *Tiatinagua*, had flimsy, vaulted huts that accommodated several families. Originally the *Yamiaka* slept on the ground, but in more recent times they adopted platform beds or fiber hammocks (Cipriani, 1902, p. 175).

DRESS AND ADORNMENTS

Masculine dress consisted of a sleeveless shirt of cotton or bark cloth. Women wore a bark-cloth or cotton skirt and often a square shawl on their shoulders. *Atsahuaka* women often had a pubic leaf under the skirt. The *Atsahuaka* painted concentric circles with dots on

their garments. Their cotton fabrics were also decorated with brownish stripes along the edges.

Every *Yamiaka* or *Atsahuaka* had a hole in the septum of his nose. Nasal ornaments included feathers or sticks and pendant objects, such as shells or silver coins. Some *Atsahuaka* inserted wooden sticks through the corners of their mouths.⁹ A few *Atsahuaka* women placed sticks or feathers in their ear lobes; all women wore monkey-tooth necklaces. The *Atsahuaka* had beautiful parrot-feather headdresses, and a peculiar ornament described by Norden-skiöld (1905, p. 303) as a cotton frontlet with fringes and feather tassels falling on the shoulders. Both *Yamiaka* and *Atsahuaka* painted themselves with rucu and genipa even in everyday life, facial patterns being mostly transverse stripes or dots, and body patterns being checkers or vertical stripes. Combs were of the composite type.

TRANSPORTATION

The *Yamiaka* used both dugout canoes and rafts. The *Atsahuaka* needed no boats as their territory lacked navigable streams.

Contrary to the custom of most Indians in the region, the *Atsahuaka* supported ordinary burdens on their backs with a band that passed across their chests; children, however, were carried on the shoulders in a baby sling held by a tumpline.

MANUFACTURES

Basketry was little developed. The *Southwestern Panoans* manufactured boxes and mats, made by sewing *Gynerium* stalks together, and wove a few oval wicker baskets. *Atsahuaka* and *Yamiaka* spindles were of the modern Andean type. When dropped, they turned in a shell. *Atsahuaka* clay spindle whorls were characteristically conical.

These two tribes had simple, unornamented cooking pots, the clay of which was tempered with pulverized potsherds.

Bows and arrows were similar to those of the *Takanan*-speaking *Tiatinagua* except in such small details as the proportions of the several elements, the presence of a barb under the bamboo head, the method of binding, and the use of small feather ornaments. The *Atsahuaka* used rod heads which were barbed along one side only, whereas those of the *Tiatinagua* had barbs on both sides. The *Yamiaka* used simple fishing arrows which lacked barbs. The butt of an *Atsahuaka* arrow shaft was reinforced with cotton thread. *Atsahuaka* children hunted birds with multipointed arrows.

⁹ According to the anonymous author of the article, Los Salvajes de San Gabán, *Yamiaka* women perforated their lips and inserted pieces of bone.

Atsahuaka fire fans were made of feathers inserted in a wooden handle. The *Atsahuaka* used agouti teeth as planes or chisels, the lower jaw serving as a haft.

POLITICAL ORGANIZATION

Both *Southwestern Panoan* tribes had a chief who enjoyed a certain authority. The *Atsahuaka* showed a great respect for their cacique, even whispering in his presence. Families were monogamous.

ILLNESS AND DEATH

The *Atsahuaka* treated sick people by flogging them with a nettle (*Urera* sp.) and stepping on their bodies. When a person died, the *Yamiaka* destroyed a great many of the cultivated plants growing in his fields. They buried the deceased along with his property.

MUSICAL INSTRUMENTS

The only *Yamiaka* musical instrument was a bamboo joint from which a dull and monotonous sound was obtained. Tribes speaking different languages often shared the same songs.

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THE MOJO AND BAURÉ

TRIBAL DIVISIONS

The early literature describing the Indians of the ancient Province of Mojos, which extended from the Guaporé River to the foot of the Andes, does not distinguish the *Arawak*-speaking *Mojo* from the numerous tribes of other linguistic stocks, so that the original habitat of the *Mojo* cannot be bounded with exactness.

Father P. Marbán, the author of the "Arte de la lengua Moxa con su vocabulario y cathecismo," Lima, 1701, in answering a query of his Superiors as to the number of languages spoken in the Province of Mojos, writes:

Five are the different languages of that Province: *Morocósi*, *Manesono*, *Mopésiana*, *Jubirana*, and *Iapimono*; but in spite of these several languages, there is one which is general, the *Morocósi*, spoken by three-fourths of the Province, though in several places the colloquialisms are different as well as many words, but this language is understood and it would not be necessary to learn the dialects. [Marbán, 1898, No. 1, p. 133.]

Morocósi is the *Mojo* language, an *Arawak* dialect.

According to Castillo (1906, pp. 294-302), one of the first missionaries among the *Mojo*, the southernmost representatives of that tribe were the *Suberiono*, who lived in four villages on the Rio Grande (Guapay River), somewhat above its junction with the Piray River. These *Suberiono*, certainly related to other *Suberiono* (*Suberono*) living in the plains west of the Mamoré River, were mixed with *Tore* (*Toro*) Indians who spoke "the language of Santa Cruz," i. e., *Chiriguano*.

The *Aracureono*, a *Mojo* subtribe, had 10 villages of about 50 inhabitants each on the Mamoré River above its junction with the Rio Grande.

The *Mojo* subgroups on both banks of the Mamoré River and in the plains west of that river were: The *Casaboyono*, *Guanapeano*, *Aperucano*, *Sebaquereono*, *Suberiono*, *Moremono*, *Satirmono*, *Apereano*, *Mayuncano*, *Siyobocno*, *Cubuquiniano*, *Boseono*, and *Mubocono*. The *Punuhuana*, the most important subgroup, inhabited the plains west of the Mamoré. The *Mariguiono* had three villages on the lower Securé River. Between them lived the *Arebocono*. The northernmost group was that of the *Mopereano*, who were neighbors and enemies of the *Canichana* (*Canesi*) tribe. There were also some *Mojo* settlements on the Machupo River.

The total number of *Mojo* was about 6,000 (Castillo, 1906, p. 294). They lived in some 70 villages each with an average population of 60 to 80 persons. Communities of only 30 to 40 were quite numerous, but those with 100 and even 200 people were exceptional.

Eguiluz (1884) is one of the few missionaries who took the trouble to specify the languages spoken in the several missions of Mojos. The Indians of the Mission of Trinidad were the *Mayuriana* and others who spoke different languages, but most of them in 1696 had learned *Mojo*. Three groups of Indians, none of them belonging to the *Mojo*, formed the Mission of San Ignacio de Loyola, but the *Mojo* language was forced upon them and in 1696 was spoken by the *Punubocanos*. Several languages were in use in the Mission of San Francisco Xavier, but the *Mojo* language gained predominance rapidly, probably because it was spoken by many Indians. In San José de los Maharenos, most of the Indians were *Churima* who had the same language as the Indians of San Francisco de Borja. In the latter there were, moreover, *Moporoubocono* Indians whose language was different from that of the *Churima* (*Churimana*). Only in the Mission of Nuestra Señora de Loreto was the *Mojo* language the most common.

From this list we see that though *Mojo* was becoming the official and compulsory language in all the missions except San Francisco de Borja, actually *Mojo* Indians were to be found only in Loreto, San Xavier, and perhaps in Trinidad.

In 1767, the *Mojo* language was spoken in the following missions: Loreto (1,200 Indians), Trinidad (100), San Ignacio (1,200), San Xavier (1,500). It also had been spoken in the Missions of San Luis and San José, which had been destroyed before the expulsion of the Jesuits. *Bauré* was in use in San Nicolas, San Joaquin, and Concepción (Hervas, 1800, pp. 247-248).

Alcide d'Orbigny (1839, vol. 2, p. 226) found in 1831 the *Mojo* language spoken in the same missions as mentioned by Hervas, but he lists Carmen de Mojos among the *Bauré* missions and does not mention San Nicolas. According to D'Orbigny, the *Muchojeones* of Carmen de Mojos were a subtribe of the *Mojo*.

Hervas (1800, p. 248) regards the *Ticomeri* language as a *Mojo* dialect, but contradicts himself by stating that the "majena or maxiena" language of the *Ticomeri* was an isolated language spoken at San Francisco Borja.

From the distribution of these missions and from the testimony of Father Francisco del Rosario (1682, p. 841), who places the "*Moços*" east of the *Moseten* on the western tributaries of the Mamoré, it seems evident that the *Mojo* inhabited the southwestern part of the province which bears their name. Their numerous villages were scattered on nonflooded stretches near the upper Mamoré, Securé, Apere, and Tijamuchi Rivers.

The *Bauré* (*Mauré*, *Chiquimitica*) occupied a fertile country along the Rio Blanco, where a village bears their name (Baurés). They also lived along the Itonama (San Miguel) River, along the San Simón River, and in the region between the latter and the Guaporé River.

Missionaries described them as more civilized than the other *Mojo* tribes. They had large villages protected by palisades, cotton garments, and regular chiefs (Lettres édifiantes et curieuses, 1781, vol. 8, pp. 112-113).

Population.—Orellana (1906, p. 7) estimates their number in 1687 at 4,000, Marbán for the same period at 6,000. Eguiluz puts the total number of Indians in the region of Mojos at 19,789 in 1696.

In 1780 the population in the missions inhabited by *Mojo* and *Bauré* was as follows: Loreto, 1,313; Trinidad, 1,155; San Ignacio, 1,147; Concepción, 1,824; San Joaquín, 962. No figures are available for the other missions.

In 1831, according to D'Orbigny (1839, vol. 2, p. 226) there were 13,620 *Mojo* and *Bauré*.

HISTORY

At the very beginning of the conquest of Paraguay, Mojos was the name of a fabulous country east of the Andes in the region of Xarayes, on the upper Paraguay River, where gold and silver were alleged to be as common as stones. The marvelous tales of this country came from Indians but were actually merely embellished descriptions of the *Inca* empire. The Spaniards, unwilling to admit that the El Dorado was the Andean Empire which they had already reached and conquered, convinced themselves that it lay in the unexplored regions to the east and explained its riches by the tale of an *Inca* who had fled toward the mountains beyond the border of the empire and had created a new realm far more wealthy than the first.

The Spaniards attempted to reach the land of the *Mojo* from two sides, Paraguay and Peru. The more serious of these expeditions were those organized by Irala and Nufrio de Chaves, who, starting from the Lake of Xarayes on the upper Paraguay, crossed *Chiquito* territory and reached the foot of the Andes. The Spanish viceroy, Don Hurtado de Mendoza made Nufrio de Chaves lieutenant governor of the Province of Mojos in 1560. Between 1539 and 1570, nine unsuccessful expeditions left Peru in quest of the land of the *Mojo*.

Around the years 1580 and 1583, Lorenzo Suárez de Figueroa, governor of Santa Cruz, organized an expedition to the same region. Crossing the northwestern part of the Province of Chiquitos, he reached the land of the *Chapakura* and that of the *Timbu* Indians, who may well have been *Mojo*, as the name *Timbu* was applied to all Indians wearing the type of nose ornament characteristic of the *Mojo*, and as other references to *Timbu* Indians of Chiquitos seem to point to the *Mojo*. Another expedition sent by the same governor in 1595 under the leadership of Juan de Torres Palomino descended the Rio Grande (Guapay River) for 80 leagues and arrived at the country of the *Motilones* or *Torococi* (*Mojo*), but, because of the death of Lorenzo Suárez de Figueroa and perhaps also because the Spaniards were disappointed by the poverty of the land, it established no settlement. There is no doubt that the *Motilones* or *Morococi* (*Morochossi*) were *Mojo* Indians. All the data in the letter of the Jesuit Father, Hierónimo de Andi6n, who accompanied the expedition (Annua de la Compañia de Jesus, 1885, p. 80), apply to the *Mojo*: They wore silver labrets, had the alae of the nose perforated to insert silver rings, and lived in small houses built around a plaza where there was a cooking shed and a men's house which served as a temple. From the *Mojo* the Father obtained information about the *Xoboyono* who had silver ornaments and about the *Bauré* (*Mauré*) who were "dressed and civilized people." Father Andi6n is the first to refer to the feather mosaics of the *Mojo*: "Hallose un cuadro labrado de plumería de colores muy finas y vistosas."

Juan Mendoza Mate de Luna, governor of Santa Cruz de la Sierra, also led an expedition to the land of the *Mojo* by way of the Rio Grande (Guapay River) in 1602 or 1603. He even founded a settlement on the Guapay River which he called Trinidad, but the colonists rebelled and deserted the site.

In 1617 another governor of Santa Cruz de la Sierra, Gonzalo de Solís Holguín, undertook the conquest of the *Mojo*. He left with a party of 75 white men from the town of San Francisco Alfaro, which was founded near the place occupied later by the Mission of San Xavier. He crossed the region of Chiquitos to the *Tapacura* (*Chapakura*), many of whom he persuaded to accompany him to the *Toro* (*Mojo*) Indians.

In the several narratives of the expedition he mentions spear throwers, men's houses or dance halls (the drinking houses), and kitchens (distinct from the houses), all characteristic of *Mojo* culture. This expedition and another, by the same governor, in 1624 completely failed. The Spanish explorers and soldiers, now convinced that the riches of the *Mojo* were fables, lost interest in the land and left its conquest to the Jesuits.

During the first part of the seventeenth century, the *Mojo* ascended the Rio Grande (Guapay River) to obtain from the *Chiriguano* iron tools for which they traded cotton cloth. A party of these *Mojo* traders met Spaniards from Santa Cruz, accompanied them to the city, and established friendly relations with its inhabitants. Some years later the *Mojo* asked the Spaniards to assist them in a war against the *Cañacure*. The colonists accepted, hoping to acquire slaves. Father Juan de Soto, who accompanied the expedition (1660), recommended the land to the Jesuits as a promising field of action. In 1668, the Fathers José Bermudo, Juan de Soto, and Julian Allier made a short sojourn among the *Mojo* to prepare them for future conversion, but found the Indians hostile and distrustful because they feared that once gathered in missions they would be sold as slaves. The Jesuits, however, were not discouraged by the secret opposition of the Indians.

In 1675, Fathers José Castillo, Cipriano Barrace, and Pedro Marbán stayed with the *Mojo* for several years, learning their language and planting the first seeds of Christianity. The first mission, Loreto, was founded in 1684, Trinidad in 1687, and San Ignacio in 1689. Father Cipriano Barrace was killed in 1702 by the *Bauré* while trying to convert them.¹⁰

¹⁰ Abrégé d'une relation espagnole de la vie et de la mort du Pere Cyprien Baraze, de la Compagnie de Jésus, et Fondateur de la Mission des Moxes dans le Pérou; imprimé à Lima par ordre de Monseigneur Urbain de Matha, Evêque de la ville de la Paix (Lettres édifiantes et curieuses, 1781, vol. 8, pp. 77-118).

By 1715 there were 15 *Mojo* missions; Loreto, Santa Rosa del Chapare, Trinidad, San Xavier, San Pedro, Exaltación, San Ignacio, San José, San Luis, San Borja, San Pablo, Reyes, Concepción de Baurés, San Juan Bautista de Guarayos, and San Joaquín. Thanks to the industry of the missionaries and the good disposition of the Indians, the settlements became extremely prosperous. In 50 years the Jesuits brought about great changes in the native culture, giving the Indians horses and cattle and teaching them numerous new arts. The silver altars and beautiful carving made by the Indians for the churches still bear witness to the prosperity of the missions.

When the Jesuits were expelled in 1767, the missions were turned over to curates and civil administrators. Thereafter, their decadence was so rapid that within a few years little remained of the Jesuits' work. Some of the arts the missionaries taught have been retained, however, by the modern *Mojo*, who, thanks to the Jesuits, are able to cope with eastern Bolivian civilization.

During the two last centuries, the *Mojo*, ruthlessly exploited and mistreated by the religious and civil authorities, rose on several occasions against the Whites. As might be expected from their social and religious condition, these rebellions finally took a messianic turn. In 1881, an Indian named Andrés Guachoco announced to the Indians of the region of Trinidad that he was "an incarnation of God" and that the White race was doomed. He then exhorted them to expel the intruders from the country. This prophet owed his great power over the miserable natives to his talents as a ventriloquist. He would summon councils of chiefs and then pretend that through his power, God or the Virgin spoke directly to them. First he drew the Indians away from the Catholic priest and then led them against Trinidad, where they killed a score of Bolivians. The rebellion was easily subdued; Guachoco and other leaders of the movement were executed. His lesser followers were settled in two villages, San Lorenzo and San Francisco, near the Ichinata River (René-Moreno, 1888, p. 120, and Wegner, 1931 b, p. 94).

The *Mojo* at the end of the nineteenth, and beginning of the twentieth century were in great demand as boatmen and peons for the rubber companies, and fell victims to the atrocities committed in the Beni region. A great many were taken into slavery; others died as a result of the tortures to which they were subjected.

SUBSISTENCE

Collecting.—Like all the tribes of eastern Bolivia, the *Mojo* supplemented their diet with wild fruits. We know through Castillo (1906, p. 303) that they greatly relished the fruits of the cachí palm.

Farming.—The *Mojo* were proficient farmers, who cultivated yuca (sweet manioc), maize, sweetpotatoes, pumpkins, gourds, beans, peanuts, arracacha, cayenne pepper, papayas, bananas, sugarcane, tobacco, and cotton. Eder (1791, p. 99) mentions the use of poisonous manioc for food in the Province of Mojos, but his statement is not verified by other sources.

The *Mojo* and *Bauré* cleared fields in the forests, which were not flooded during the rainy season. At the end of August they first destroyed the underbrush, then cut the base of large trees by alternately charring and hammering the wood with stone axes. They waited until a strong wind blew down the undermined trees, or else felled selected trees, which knocked down all the others. The dry trunks were burned and their charred remains left on the field to protect young maize stalks. The Spaniards who penetrated the country with Solís Holguín were amazed at the size of the *Mojo* fields, which were crossed by wide roads. In one field they counted from 400 to 700 "percheles" (probably the forked sticks used to support maize) in a single row. The patches planted with yuca were especially large and carefully weeded. Peanuts were sown preferably along the sandy beaches. Even in the premissionary era the *Mojo* raised a little sugarcane, which they ate as a delicacy.

Planting began early in October when the *Mojo* dug holes about 3 feet (1 m.) apart with sticks and placed 10 to 14 maize grains in each. The maize was ready for harvest in 2 months. Yuca was planted in September or October, when three or four cuttings, each 6 inches (15 cm.) tall, were buried in separate holes, and was ready to eat in February.

The *Bauré* are said to have cultivated on communal ground the plants from which they made their drinks.

Hunting.—Two sharply contrasting types of hunting occurred among the *Mojo*, the one characteristic of the jungle, the other of the open plains. In the first, individual hunters stalked monkeys and birds in the gallery forests along the rivers. In the second, large groups of men, led by the cacique, whose authority was absolute for the occasion, hunted deer herds communally. They pursued the animals with dogs, which were trained to obey the command of the hunters, or drove them with grass fires toward ambushes.

During the floods a very profitable *Mojo* hunting method was to surround an island on which game had taken refuge. A few hunters took vantage positions on high places while others surrounded the island in canoes. Groups of Indians with trumpets, drums, and packs of dogs invaded the island from several sides making as much noise as possible. The panic-stricken animals, especially deer, ran to the shore to escape by swimming, but were killed by the boatmen,

who struck them with sticks, lassoed them, stabbed them, or jumped on their backs and drowned them.

Mojo hunters, wearing white shirts and headdresses in the shape of a bird common in the plains, stalked herds of deer. They advanced slowly on the leeward side, imitating the bird until they were sufficiently near to shoot with bows and arrows or blowguns. They might also arouse the curiosity of deer by approaching them in disguise, then raising an arm or a leg to attract their attention.

The *Mojo* hunted rabbits by setting fire to the bush and forcing them to take refuge in burrows from which they were dug out.

The *Mojo* attacked jaguars either with two spears or with bows and arrows, which they shot in rapid succession until the animals fell. The killing of a jaguar brought unusual honors to the hunter and was celebrated with dancing, drum beating, and other ceremonies (see p. 74). The safest means of taking a jaguar was to lure him to the river bank or into the water by imitating his call with a calabash megaphone, and then to shower him with arrows from a canoe. They also treed jaguars with dogs and shot them with the blowgun. After acquiring iron, a lone hunter armed with two iron spears would not hesitate to attack a jaguar.

After the *Mojo* acquired horses, a new hunting method was to lasso game, even jaguars, drag it behind their horses, and then, dismounted, to tie it up.

Traps and snares are mentioned, but are not described.

All those who had partaken in a hunting expedition received an equal share of the game.

The *Bauré* also caught jaguars in pits covered with twigs to make them look like ordinary ground. A jaguar caught in this way was killed by the chief.

Bird hunting.—The *Mojo* shot birds, especially ducks, with blowguns from blinds built where the birds roosted at night or during the heat of the day. To take ducks, they also threw gourds on a lagoon. When the ducks had grown accustomed to the gourds, the fowler covered his head with a gourd and approached the ducks, which he seized by the feet and pulled under water to twist their necks.

Fishing.—Throughout the large Plains of Mojos, which are crossed by countless rivers and flooded a large part of the year, fishing was the most productive economic activity. Recession of floods left millions of fish stranded on the dry land or concentrated in small pools, where the Indians killed them at leisure with cudgels and spears. Most often, however, they used bows and arrows, for at times fish were so numerous that it was impossible to miss them. At times, fish even came in shoals so large that when the fish jumped, many

fell into the canoes of the Indians. Another method was to attract fish at night by fixing torches to the prows of canoes and spearing them with a trident.

The *Mojo* drugged fish with a creeper called coropi (*Paullinia pinnata*), which they beat into shreds and threw into the calm water of a lagoon. They knew of another more powerful creeper, but believed that they could use it effectively only after a period of fasting.

Nets were introduced among the *Mojo* by the missionaries, but the Indians found them of little use, for the rivers were full of branches and trees which tore the meshes. The very abundance of fish, in fact, made the European method of handling nets quite inappropriate. The *Mojo* had developed several devices for catching large numbers of fish. For instance, they made a barrier of weeds in a lagoon and pushed it against the shore, where they caught the trapped fish with their bare hands.

Eder (1791, p. 306) describes another fishing method which never has been mentioned in any other part of South America:

They take a long canoe or they tie the prow of one canoe to the stern of another. They fix spars along one side to which they attach an ox hide like a wall. With this equipment, they silently descend a river to the places where fish are abundant. When they arrive they strike the water with sticks and with their feet pound the bottom of the canoe. The fish sleeping near the shore jump . . . but hitting the hide, fall into the canoes in such numbers that the Indians have to remove the skin lest they capsize.

When swarms of small fish migrated, the *Mojo* Indians stood near the shore or a sand bank "provided only with the *covo*, a sort of conical basket, without bottom, carefully made of laths of a heavy palm wood joined by plait-work." They threw these baskets at the passing fish, which they took out through the small opening at the top (Keller-Leuzinger, 1874, p. 84).

The *Mojo* also built weirs across the outlets of lagoons and placed a fish trap in each opening of the weir. There is no evidence of the use of fishhooks before the missionary period.

Cooking.—Yuca tubers were boiled or roasted in ashes. The reference to bitter manioc (*infra*), which may apply to the *Mojo*, states that it was grated, dried in the sun, and roasted in an earthen pan. Bitter manioc tubers were also sliced thin and dried in the sun. Pumpkins and bananas were baked, but sweetpotatoes were boiled; arracachas were eaten raw.

Large animals, such as monkeys, were roasted without removing their skins. Alligator tails were cooked in the fire until the skin was entirely charred. Birds were put under hot ashes until all their feathers were burned, and then roasted on a spit. Often, however, they were boiled in water without being dressed, and with quills still

remaining in the skin. The *Mojo* even ate the grains contained in the birds' craws. Like many other Indians, the *Mojo* were not particular about the preparation of their food. They ate cow intestines which were scarcely cleaned; bats, which they threw into boiling water until they had softened to the point of melting; and fish, which they roasted without removing the guts or scales. The *Mojo* saved fish scales and bones for times of scarcity, when they were roasted and pounded into a flour and mixed with other foods. Small fish also were roasted, pounded, and eaten with maize flour. Like the mestizoes, they dried thin strips of beef on the backs of their horses. They enjoyed chewing pieces of meat which had been soaked in fried beef grease.

They relished a certain worm(?), which they collected during May and June. They crushed these worms with their fingers, dried them in front of their houses, and boiled them until they formed a blackish mush. They also ate ants, which they boiled and sometimes added to worm mush.

Ostrich eggs always were boiled hard and eaten even though they had been half hatched.

While eating, the *Mojo* sat on the ground around a large dish of food. Meat was served on mats.

The only condiment was the ash of certain plants mixed with cayenne pepper. Mineral salt was traded from the *Moseten*.

Domestication.—At the beginning of the seventeenth century the *Mojo* reared native ducks, but had not yet received chickens, which later were so numerous in their villages. They ate ducks or chickens only on special occasions, such as the end of a drinking bout or when a man wanted to treat friends who had helped him till his field.

Like many tropical Indians, the *Mojo* changed the natural color of the wing and tail feathers of the tame parrots to red by plucking them and filling the wounds with the blood of a frog (*Rana tinctoria*?) and then coating the bird's skin with wax (tapirage process). The new feathers grew in a bright red color (Eder, 1791, p. 152).

The dog was found by the Jesuits among the *Mojo*. Its resemblance to the Spanish greyhound suggests that it had been received from the inhabitants of Santa Cruz, with whom the *Mojo* had active trade relations, or from Indians in closer contact with the Spaniards. These dogs were extremely well trained for hunting and, though they had individual masters to whom they were much attached, obeyed any person during the collective hunting expeditions (Castillo, 1906, p. 332).

Cattle were introduced among the *Mojo* by Father Cipriano Barrace at the end of the seventeenth century; horses were brought soon afterward. Fifty years later the *Mojo* had become excellent horsemen and were as skillful as the gauchos with the lasso. They rode bare-

back, without a bridle and bit, guiding their horses by a thong attached around the animal's lower jaw. At the time of the expulsion of the Jesuits, in 1767, there were in the Province of Mojos 54,345 cattle and 26,371 horses. Cattle increased to an immense number and thousands of bulls and cows roamed through the plains and in the forests. In spite of favorable conditions, the *Mojo* did not become herdsmen like the *Goajiro*, and even now they do not utilize milk for economic purposes. Wild cattle became a favorite game for native hunters.

HOUSES

Some *Mojo* villages must have been unusually large, even allowing for exaggeration in the Spaniards' claim that they had 50 to 400 houses each (Maurtua, vol. 9, p. 165). Perhaps kitchens and drinking-houses or "temples," which were separate buildings, were enumerated along with true houses.¹¹ Marbán (1898, p. 132) estimated that each village had only 30 to 100 persons, only a few having as many as 200.

Floods, which cover the *Mojo* plains during the 4 rainy months, often forced the Indians to build villages on elevated land. These mounds, now covered with potsherds and studded with burials, were not made artificially, although refuse increased their height. If, as was usually the case, *Mojo* settlements were built along river banks, when flood waters invaded their houses the Indians erected platforms and covered them with soil on which to build cooking fires. Some villages were near lagoons, a considerable distance from the rivers.

The villages were connected by large causeways, 9 feet (2.7 m.) wide and about 2 feet (0.6 m.) high, the remains of which Nordenskiöld (1913 b, p. 225) discovered near Mound Velarde and Mound Hernmarck. These broad roads impressed the first Spaniards who entered the region of Mojos, for three men could ride abreast on horseback on them ("entrando por una calle or calzada que ellos tenían para division de las sementeras, que cavían tres hombres de a caballo por ella") (Maurtua, 1906, vol. 9, p. 170).

Bauré villages were surrounded by palisades with loopholes for archers, and a ditch; for further protection pitfalls were concealed in the paths.

Mojo dwellings were round; cook houses were rectangular with open sides. Dwellings were about 15 feet (4.5 m.) in diameter and of equal height. Walls were of wattle and daub, about 3 feet (1 m.) in height; the conical, thatched roof was supported by a center post.

¹¹ But Juan de Limpias (Maurtua, 1906, vol. 9, p. 170) declares that he visited a village with 400 houses, 90 kitchens, and 9 "drinking places" and another village with 60 or 66 houses, 33 kitchens, and 5 "drinking places."

The doorway, which was so low that one had to crawl in, was closed by a skin or by reeds fastened between parallel sticks. These houses served as a refuge against mosquitoes.

Houses were often grouped around a large central plaza.

In each hut were six or seven cotton hammocks, wooden benches, mats on which women sat, and large jars for storage of small objects. Under Jesuit influence the *Mojo* adopted gabled houses, with a thatched roof of motacu palms and walls of reeds. Today only children sleep in hammocks whereas adults use ox skins as beds.

DRESS AND ADORNMENTS

Long cotton or bark-cloth shirts, often elaborately decorated, were used by *Mojo* men in the premissionary era, but apparently this garment became longer and was more consistently worn after the Fathers insisted on modesty. Men fastened their shirts around the waist with string and in more recent times with a cotton belt decorated with red, blue, or yellow stripes.

Men wore a short silver tube through the septum of the nose, two small silver or tin nails through the alae, a silver labret in the lower lip, and two round tin nails in the ear lobes. They also hung three or four strings of beads from the ears.

The *Mojo* obtained metal for making these ornaments by trading cotton cloth to the Spaniards in Santa Cruz for silver cups and pieces of tin, which they cut into pieces of the desired shape. Before European contact, native *Mojo* labrets were probably made of rock crystal like those of the *Bauré*.

Men tied up their long hair with cotton strings which they hid under strips of bark, and fixed beautiful parrot feathers between the threads. Feather headdresses varied from a few feathers attached over the forehead to gigantic diadems of bright tail feathers, trimmed with small feathers of various colors, and mounted on a basketry frame covered with a mosaic of short feathers. One of these headdresses, which was still worn at festivals a few years ago, consisted of 300 tail feathers, plucked from 85 birds, mainly tocho (*Ostinops decumannus* Pall.), ara (*Ara militaris* L.), and other kinds of parrot. These feathers, to which were attached the wing-shells of multicolored beetles, were fixed to a basketry hat and to a row of bamboo splinters to form a large semicircular screen over the nape. The ends of the long tail feathers were covered with pieces of bird skin (Wegner, 1931 b, p. 96). They also had silver circlets and bracelets.

Heavy necklaces of small shell disks, seeds, and jaguar or monkey teeth were worn around the neck or over the shoulders. A silver or tin plate or, if one were poor, a shell, was suspended over the chest. The *Mojo* girded themselves with belts fringed with strings of beads

and silver tubes. When dancing, they covered their buttocks with a large net to which deer hoofs and shells were attached.

In aboriginal times, a woman's costume consisted only of a narrow loin-cloth, probably similar to that of the *Paressí*. Girls went about naked until puberty. The missionaries forced women to adopt the men's shirt, but theirs were longer and not slit along the legs. Women also wore thick necklaces, bracelets, and ear pendants of beads, and, during festivals, covered their shoulders with a netlike shawl or collar, made of metal tubes and beads, from which hung bells, medals, and crosses.

Women tied their long hair with cotton thread and trimmed it with ribbons. They washed their hair with the crushed fruit of a palm.¹²

Genipa and crushed rucu seeds were mixed with water and palm-nut oil for body paint. At drinking bouts men and women displayed a great variety of body paintings. Some were entirely covered with genipa, others smeared the body half black and half red. Most of them were decorated with artistic patterns, similar to those on the pottery, which their wives traced on their heads or bodies. Even at the end of the missionary period, men still rubbed their bodies with rucu and the women stained their hands and feet with genipa.

Eder (1791, p. 217) states that the Indians (he does not name the tribe) of the Mojos region tattooed themselves with thorns or fish teeth, used genipa juice for pigment, and tattooed designs on their faces and arms representing "alligators, monkeys, and fish." This is the only reference to tattooing.

¹² "Lo primero se peinan muy bien, porque tienen el cabello muy largo y tienen mucho cuidado de criarlo, lánvalo con fruta de palma macada; después de peinado lo atan con muchas varas de hilo, el cual los hombres cubren con una corteza de caña y las mujeres dejan descubierto, en este hilo clavan los hombres un plumage muy curioso de las mejores y más hermosas plumas de los pájaros que matan, especialmente de loros y guacamayas que también suelen criar para este fin. En la cabeza suelen ponerse los hombres un cerco de plata muy resplandeciente, de las orejas cuelgan dos, tres o cuatro hilos de chaquira de la mejor color y más estimable entre ellos, en las ternillas de las orejas de donde penden las chaquiras ponen dos clavos de estaño muy lucidos, planos y redondos. En las narices en cada de las ternillas de las ventanas ponen otro clavo no plano pero redondo también. La ternilla de enmedio atraviesa una varita de plata como de una cuarta de largo y otra más gruesa y mucha más larga, cuelga del labio inferior y para todo eso tienen agujereadas esas partes. Para el cuello hacen de caracoles muchas sargas de lentejuelas muy curiosamente labrados y de esas que no pesan poco se ponen mucha cantidad; otros se ponen collares de dientes de monos y otras frutillas de la tierra. Encima de esto en el pecho, ponen muchas sargas de chaquiras y pedazos de estaño que ellos estiman en más que los caracoles.

Encima de todo cae la patena de plata que cuelga del cuello y cada uno procura que la suya sea la mejor, pero no hay caudal para mucho. El que no la tiene de plata se la pone de estaño y si de esto no hay, ó no se pone nada ó se pone una concha; las mujeres no usan estas patenas sino muchas sargas de chaquiras en el pecho y en las muñecas, y en las espaldas todos los cascabeles que pueden. A modo de tahalies ponen también los hombres muchas sargas de caracoles mezclados con dientes de tigre, lo mismo usan en la cintura, sinó que la parte de la cintura que cae á las espaldas entretejen chaquiras grandes y cañutos de plata." (Marbán, 1898, pp. 148-149.)

TRANSPORTATION

We have seen that *Mojo* villages were connected by wide causeways, some of which were sufficiently high to remain above water during the flood. In the dry season the ditches from which the soil had been taken to make the embankments constituted canals which the natives navigated in their canoes, especially at harvest time when they brought home their crops. Nordenskiöld (1924 b, pp. 185-188) followed one of these canals which is 2,000 m. long and from 6 to 7 m. wide, and connects the Mamoré River with the Iru-rupuru River. He also mentions a canal, 5 km. long and 2 m. wide, between the Chunano and San Juan Rivers, from which another canal, 50 m. long and 5 m. wide, leads to the Itonama River. By following rivers and canals from this point, the traveler will finally reach Baurés.

The dugouts of the *Mojo* are not described; those of their descendants have a sharp bow and a flat stern. They are propelled with 5-foot long crutched paddles decorated with incised designs.

Eder (1791, p. 75) also describes balsas or reed rafts with upturned prow and stern, on which the Indians—he does not say which—took long trips. Some Indians made floats by blowing air into an animal skin, but there is no evidence that this device was known before the European era.

The pelota, or bull-boat, was also known to the *Mojo*—at least in the eighteenth century. An ox hide was stretched over a frame of reeds or rods and the sides were folded to stand 6 inches out of the water. Goods were piled upon the raft, which was towed by a swimming Indian, but sometimes a paddler sat in the bull-boat.

They built bridges over narrow streams by lassoing bamboos or slender palm trees and bending them until they touched the ground on the opposite side. They attached transverse sticks over the arch so that women and children could climb to the other shore, as on a ladder (Eder, 1791, p. 75).

MANUFACTURES

Bark cloth.—To make bark cloth, the *Mojo* detached from bibosi trees large pieces of bark, sometimes 12 feet long and 3 feet wide, which they beat over a log with a grooved wooden mallet. Afterward they washed the cloth, wrung it out to remove the sap, and dried it in the sun.

Basketry.—Of *Mojo* basketry Eder writes (1791, p. 315):

They weave very elegant mats with very thin reeds which they stain beforehand so that they obtain a splendid variety of figures [flowers?]. With the same reeds or with palm leaves they make baskets, hats and bags which charm the eyes by the vividness of their colors and are eagerly purchased by the Spaniards.

The *Mojo*, like the other tribes of the region, also seem to have made boxes of reeds twined together with cotton. Judging from the basketry of modern *Mojo*, their ancestors, like the *Guiana* Indians, made flat circular trays, carrying baskets with hexagonal weave (lattice type), and round telescope baskets.

Spinning.—The *Mojo* spun cotton in the same way that so many modern tribes of eastern Bolivia do. Women sat on the ground, rested the distal end of the spindle between the large and second toe of the left foot, and rolled the spindle with the right hand along the right leg. The skein was held with the left hand.

Weaving.—*Mojo* textiles were of cotton. The two varieties of cotton, one white and the other reddish, they used undyed to produce patterns on their fabrics. The Mission *Mojo* were such expert weavers that they were able to reproduce any European weave which the Fathers gave them. Eder (1791, p. 312) is probably mistaken when he says that their loom was a pair of sticks tied crosswise (“atque filamenta super benis lignellis in crucis formam compositis tendebant, et simplicissimo hoc textrinae adparatu rem omnem perficiebant”). Modern *Mojo* and *Bauré* have the *Arawak* or vertical loom.

Wood carving.—Wood carving probably was practised by the *Mojo* before their contact with Europeans; it is improbable that they could have developed spontaneously the skill for which the Jesuits praise them. The first Spaniards in *Mojo* country stated that they saw “wooden fish and painted birds” among these Indians (Maurtua, 1906, vol. 9, p. 176). With a simple knife they carved perfect reproductions of images for the churches.

Feather work.—According to Eder (1791, pp. 308–309) feather work was the *Mojo*'s greatest artistic accomplishment. Down was plucked from the breast and from under the wings of brightly colored birds and sewed on cloth so skillfully that it resembled natural plumage. By combining different colors, the *Mojo* made mosaics representing quadrupeds, birds, or men throwing darts or fishing. When dancing, they held these feather pictures in their hands as if they were small shields, and shook them.

In fact, under the direction of their supervisors they made images and altar ornaments of feathers which you would have thought had been painted if you had not touched them with your hands.

Pottery.—The missionaries praised *Mojo* pottery, which included jars, bowls, dishes, and cooking pots. The best had painted motives which, according to Marbán (1898, p. 150), were “taken from the spots of animals.” In mounds in the *Mojos* region, Nordenskiöld discovered pottery vases with painted geometric designs (1913 b) which were undoubtedly made by the ancestors of the *Mojo*. Clay

was tempered with the ashes of spongi (*Parmula Batesii*) containing small spiculae, which gave to the material a remarkable resistance. Pottery was made by women.¹³

Weapons.—*Mojo* bows were about 5 feet (1.5 m.) long and were made of chonta wood decorated with feathers and wrapped with colored threads. Arrows were tipped with a lanceolate bamboo blade or with a rod to which a bone head or the spike of a stingray was fastened with wax. War arrows often had a hollow nut shell which whistled when flying through the air. Arrow feathering, judging from Eder's plates, seems to have been of the Peruvian cemented type.

Mojo archers could hit targets at a distance of 60 feet (30 m.). They shot with such power that their arrows pierced the gunwales of canoes.

The *Mojo* used the spear thrower for hunting and war. A picture in Eder's book seems to show the spear thrower as a narrow board with a hook to engage the butt of the dart, but Eder (1791, p. 287) describes it as a "tube" (capsulae), which must mean a halved section of bamboo. Whatever its type, the spear thrower was discarded soon after European contact.

The *Mojo* blowgun was, like that of the *Huari*, a long bamboo tube, straightened by heating it over a fire. Blowgun darts were thin palm splinters, the butts of which were wrapped with a cotton pad to receive the impact of the air. As they were dangerous to handle, being poisoned, they were kept in a bamboo quiver. The poison (undoubtedly curare) used on blowgun darts was extracted from a creeper, coropi, which seems to have been the same as that used for drugging fish. The creeper was shredded, the fibers sprinkled with hot water, and the decoction was slowly filtered through cotton and then boiled on a slow fire until it became quite thick. The mass was then made into a cake and dried in the sun. To use the poison, it was moistened with tobacco juice and the darts were then dipped in its melted surface. Arrows and darts thus coated with poison were exposed to the sun.

Spears were adopted after European contact; but slings and bolas, which Nordenskiöld (1924 b, p. 65) thought had been introduced by the Whites, were used by the *Mojo* before they had even heard of the Spaniards. The several reports of the Solís Holguín expedition mention spear throwers, slings, and bolas ("ayllos de tres piedras atadas en triangulo como los de Peru" and "lives, que suelen maniatar á uno y derriaballo, y que los Toros heran sus armas es-

¹³ Castillo (1906, p. 320): "estas mismas (mujeres) labran tinajas y todo lo que es de barro que lo hay muy bueno, se puede ofrecer dándole muy vistoso barniz y gracia en la hechura; . . ."

tólicas" (Maurtua, 1906, vol. 9, pp. 147 and 164)). By the end of the eighteenth century, the *Mojo* used bolas of lead, like those of modern gauchos. Clay pellets bristling with poisoned thorns were used as missiles for slings.

The only weapon of defense known to the *Mojo* and *Bauré* was a shield made of reeds firmly twined together with cotton threads and trimmed with feathers.

Tools.—Since there is not a stone of the size of a pebble all through the plains and forests of the Province of Mojos, the Indians had to import the stones for their axes. A few stone axes were found by Nordenskiöld in his excavations on the mounds of Mojos.

Metallurgy.—The silver or tin ornaments—diadems, bracelets, disks, tubes—of the *Mojo* were made of pieces of metal which they cut from the bowls and dishes traded from the Spaniards. Their only tools were knives, scissors, and stone hammers. They did not smelt ores, but occasionally melted down the purchased silver or tin. Silver disks were tempered to harden them. All metal objects were painstakingly polished.

SOCIAL ORGANIZATION

Information on *Mojo* social organization is almost entirely lacking. According to Orellana (1906, p. 7), our most ancient source, each community had a chief who was elected every year and whose authority depended on the good will of those under his rule. This statement must be accepted with some reservation as it does not tally with the few data we have on the social organization of the *Bauré*, whose culture did not differ considerably from that of the *Mojo*. The *Bauré* chiefs, called arama, formed an aristocratic caste, for a chief's first wife had to be the daughter of some other chief and only his son by a noble mother was eligible to succeed him.

Chiefs did not work and were provided with food and drink by their subjects. They enjoyed great power and even could impose a death sentence. Some control upon a chief's authority was, however, exercised by old men who represented the community and reminded him of his duties. Chiefs saw to it that peace was not disturbed and there is an instance of a chief who thrashed two murderers without their daring to resist him. During a war or hunting expedition chiefs assumed unrestricted power. Chiefs also decided when a village was to be moved to another spot, and it sufficed that some misfortune had befallen one to cause the shifting of a community.

A few scattered remarks in our sources seem to allude also to the existence of a servile class. These were probably prisoners who were often sold to other tribes or to the Whites.

Disputes between individuals were settled during drinking bouts by a conventional wrestling match. A man who felt wronged challenged the offender; then, gripping his hair or ears, tried to throw him to the ground; if he succeeded, the quarrel ended and harmony was restored. A murderer sought refuge in another community.

Each man was the undisputed owner of the objects which he manufactured for his own use. Canoes, built cooperatively but evidently owned individually, were borrowed freely by anyone needing them.

LIFE CYCLE

Childbirth.—According to Eguiluz (1884, p. 10), a woman who practiced abortion or suffered a miscarriage was drowned by the inhabitants of her own village, who feared dysentery. On the other hand, Eder (1791, p. 361) complains of the frequency of abortion among *Mojo* women. The foetus generally was expelled by pounding the abdomen with stones. Infanticide was a common practice.

Women were delivered in special huts outside of the village, assisted by a midwife; a duck was sacrificed and the spirits were propitiated by conjuration and the playing of a flute. If the delivery was difficult, toads were attached to the woman's bed, but these were sprinkled with chicha and set free a few days later. If the baby had some monstrous deformity, it was killed. If the mother died during or after childbirth, her child was buried alive with her, because it was thought that a child could be fed only by its mother. If twins were born, the second was believed to be the child of a spirit. This evidence that the mother had had intercourse with a supernatural being gave her great prestige. Twins were allowed to marry only twins. On the other hand, some missionaries state that one of the twins was buried alive, face downward. A woman was not confined long after birth and soon resumed her customary activities.

Marbán (1898, p. 156) mentions a few punishments inflicted upon children: A little girl was tied to a post; other children were hit with the fist.

Puberty.—There is no mention of a special ceremony celebrating a girl's attainment of puberty, but menstruant women had to retire to a platform lest their very presence cause the plants and trees to dry up.

Marriage.—The most desired attributes of a wife were that she be fat, active, a good weaver, know how to brew good beer, and be able to take care of her husband's hair. Women preferred men of a dark complexion, who were skillful hunters and fishermen and also proficient tillers. A boy and a girl who were engaged ate from the same dish during the few days preceding their marriage. Unless both had a good appetite, which was interpreted as proof of mutual

consent to the union, the marriage did not take place (Marbán, 1898, p. 158). A marriage, at least in the missions, was celebrated without any ceremony. The bride merely went to live in her husband's house. In the "Lettres édifiantes et curieuses" (1781, vol. 8, p. 87), however, it is stated without indicating the tribe in question, that the *Mojo* Indians followed their wives after marriage—a clear allusion to matrilineal residence. Polygyny existed, but was rare. Infant betrothal is reported for a few unspecified tribes of the region. Castillo (1906, p. 334) cites the case of a man married to both an older woman and her daughter.

An adulterous woman was severely punished by her husband or even by her relatives, one of the main reasons for this being the belief that a wife's delinquency injured her husband's success in hunting or even endangered his life. The lover, however, was unmolested until the offended husband, in the turmoil of a drinking bout, would pick a fight with him, tear off his ornaments, and thrash him.

Conjugal ties were lax. Missionaries complained that the Indians divorced "for a harsh word, for an affront, because the wife did not answer her husband, because the man refused the drink or the food served by his wife, because of jealousy or any other slight cause" (Orellana, 1906, p. 11).

Funeral customs.—Our sources are silent on the funeral customs of the *Mojo*. We only know that they buried their dead in shallow graves and that they placed bows, arrows, maize, and beer over the sepulcher. Nordenskiöld's excavations (1913, pp. 214–244) in the mounds of the *Mojos* regions have shown that the usual form of interment was secondary urn burial, except, perhaps, in the culture represented by the lower layer of Mound Velarde. In the upper stratum of the same mound, in Mound Hernmark and Masicito, funeral urns were covered either with another urn or with a tripod vessel.

Eder (1791, p. 20) says that two tribes of the region—he does give their names—believed in the transmigration of souls: those of good people went to a place where they feasted and made love, whereas those of wicked men turned into jaguars, wild pigs, and other animals.

ESTHETIC AND RECREATIONAL ACTIVITIES

Dances.—Dancers wore splendid headdresses and often were disguised with bird or monkey skins. Many held pieces of cloth covered with feather mosaics in their hands. Dancers formed two lines facing each other, then, stooping forward, moved to and fro, playing flutes and shaking rattles. At times they stamped on the ground to make their anklets of nuts jingle. The steps followed a two beat

pattern. Extravagantly dressed clowns, each carrying a drum slung over his shoulder, danced apart from the main group. These jokers were entitled to all kinds of favors.

Men and women danced in separate groups, each singing songs. Girls, holding each other by the hands, performed a posture dance while intoning the refrain to verses chanted by a man beating a small drum.

Each community gave an average of 10 or 12 feasts a year, but its members were frequently invited to those organized by the other villages of the region. The joyous event was announced the day before by the beating of wooden drums, a large and a small one. The guests gathered in the dancing hall, or "temple" (bebedero), where they sat on carved wooden benches or in hammocks placed around the huge partially buried chicha jars. During the party, men boasted of their past deeds or challenged their offenders.

A few years ago modern *Mojo* still performed strange dances at church festivals. How far these represent survivals of their old culture and how far they contain elements taught by the Jesuits, is difficult to determine. The most famous of these dances was that of the macheteros, or sword men, who brandished their wooden weapons in front of the altar before laying them with their diadems down before the crucifix in sign of submission. The *Mojo* had another dance in which people holding chickens on their heads stamped the ground in front of the altar.

Musical instruments.—The *Mojo* were good musicians.

There was no kind of instrument brought from Europe [says Eder, 1791, p 313] which they could not play or blow, to the astonishment even of the military commanders. They made string and wind instruments themselves and played on them with harmony and charm all sorts of pieces composed by our best musicians.

Native *Mojo* instruments listed by the missionaries included fruit-shell jingles attached to the ankles, jingle rattles of deer hoofs, and shells hanging from the lower edge of nets worn around the waist. Gourd rattles were filled with pebbles. They were, with the drums and trumpets, the most sacred instruments. The "large drum" beaten with a single stick was perhaps the hollow-log drum. Small drums, which the mission Indians slung over their shoulders when dancing, had been acquired from the Whites or copied from European drums. Such drums, still used quite recently, were made of a piece of bark or a hollowed palm stump. Both ends were covered with jaguar or deer skins.

The favorite instrument of the *Mojo* was the panpipe, which consisted of a single row of reeds held between two sticks, and was suspended on a cord around the musician's neck.

It is impossible to know from Eder's description (1791, p. 334)¹⁴ whether the instrument composed of an elongated gourd and a flute was a simple trumpet or a clarinet (Izikowitz, 1935, p. 256). The funnel-shaped *Mojo* bark trumpets were probably identical with the spiral, twisted bark trumpets of the Guiana region and served the same purpose. The civilized *Mojo* retained this instrument but had transformed it into a gigantic panpipe by joining together 11 bark trumpets of various lengths.

The individual trumpet consisted of two layers of bark or leaves, one twisted longitudinally and the other at right angles with this, or rather in spirals. In this way the tubes became quite firm. They were slightly conical and in the upper narrower aperture there was a mouth piece of reed which was carved to suit the shape of the mouth . . . The instruments were joined by means of a transverse lath, precisely as on the panpipe. [Izikowitz, 1935, p. 225.]

Games and sports.—The national sport of the *Mojo* was a ball game, in which the ball was struck with either the feet or the head. When the feet were used, the two contesting teams were 25 feet (7.6 m.) apart, but when they butted with the head the interval was about 42 feet (13 m.). The balls were of rubber, made by first coating a clay ball with liquid rubber, and then dipping it in water to dissolve out the clay. After this, they blew air into the ball, wrapped it with a flat piece of rubber, and smeared it with several coats of liquid rubber. The finished ball weighed about 25 pounds. Football players protected their legs with bandages.

The missionaries introduced among the Indians a great many European games and sports, such as horse racing in which novice riders provided a comic element. Eder (1791, p. 340) mentions a game which is perhaps genuinely Indian: one man attempted to eat a certain amount of hot corn on the cob before his competitor could run to a goal.

Drinks.—Maize beer was made of slightly roasted grains pounded in a mortar, sprinkled with water, and then briefly roasted a second time in pans. After this, many women gathered around the bowls and spent the night chewing part of the maize flour. The flour, now soaked with saliva, was boiled for 24 hours, and the broth was transferred into large jars to ferment. The best chicha was that covered by a thick layer of fat. Marbán (1898, p. 138), however, remarks that the maize beer was not very popular in his day and that the Indians brewed chicha of boiled yuca tubers which were crushed, strained through a sifter "of bark strips," and then allowed to ferment more or less according to the degree of strength they desired. In his excavations of Mound Velarde and Mound Hernmarck, Nor-

¹⁴ "Pro basso, ut vocant, germina adhibent instrumenta: pumum cucurbitis oblongis aut rotundis constat; illas more tubarum, has inserta fistula inflant."

denskiöld (1913 b, figs. 35 and 40) found vessels with perforated bottoms which were perhaps used in the preparation of chicha. We know that the *Mojo* "covered their beer jars with a perforated dish and that they placed on sticks vessels with holes which they filled with chewed yuca. They poured over it water which trickled drop by drop" (Castillo, 1906, p. 328). Sometimes poisonous manioc tubers were treated and added to maize chicha. Fermented drinks also were made from all kinds of fruit, especially pineapples. Chicha was served in gourds which, on solemn occasions, were trimmed with feathers and decorated with figures. When on a long journey, these Indians always took as provision a pot of the fermented yuca mass, which they mixed with water to prepare a stimulating and nourishing beverage.

RELIGION

The few data on *Mojo* religion in the missionary accounts indicate a fairly complicated religious system and a well organized cult. The *Mojo* believed in a great many deities

some particular to one village, others common to all of them. Some of their gods were married; others were single. Each one had distinct functions and activities. Some presided over water and fish, some over clouds and lightning, some over the crops, some over war, and some over jaguars. [Eguiluz, 1884, p. 10.]

The tutelar deity of the *Moremono* subgroup was a star called Arayriqui. Gods were so intimately associated with the territory inhabited by their worshipers that the Indians were always loath to migrate lest they be deserted by their protective deities.

Eder (1791, p. 243) gives these several deities the collective name of acsane, which may be translated as "spirit." There were acsane of the forests, of the rivers, of the lakes, and of other things, but the most powerful acsane were those of the dead. These acsane caused the copaiba trees (*Copaifera officinalis* Lin.) to creak at night when they rubbed themselves against the bark to cure wounds suffered in fights. The *Mojo* was so terrified of the Jaguar Spirit that shamans easily persuaded people to bring them offerings of meat and food. If somebody was killed by a jaguar, all his belongings were exposed in front of his hut and thenceforth were regarded as the rightful property of the animal. Those who had been wounded by a jaguar acquired high prestige and generally became shamans.

A hunter who killed a jaguar took the name of the slain animal which was revealed to him by a shaman; he also had to observe a special ritual and subject himself to a series of taboos. He had to fast, to cut off part of his hair, and seclude himself in the temple where the heads of the jaguars were kept and worshiped. The ceremonies ended with a drinking bout, during which the priest or shaman

made a libation to the deity on behalf of the killer. The victory over the jaguar was credited to the god.

The rites observed after killing a jaguar were not, however, always so strict. Father Marbán (1898, p. 154) tells us that when any Indians of his village shot a jaguar, they were washed in the river by women and then they fasted. A jaguar's body was not taken to the village, because it might cause an epidemic, but was eaten on the beach by the chief and other people who stayed away from the village beating drums and drinking for many days.

Trees were under the protection of the Rainbow, who, in *Mojo* mythology, was the Sun's wife. Eder (1791, pp. 249-250) tells us that the *Mojo* once refused to obey the missionaries when ordered to cut certain tall trees, fearing to be drowned as a punishment for their sacrilege.

Lake Origuere in the Mojos region was shunned by the Indians, who believed that a gigantic fish resided there who would capsize the canoes of trespassers and have them devoured by smaller fish.

Sacred buildings and cult.—Each village had huts, which the missionaries called temples or "drinking-places" and which were repositories for human skulls belonging to the warriors (it is not stated whether the skulls were from members of the tribe or from enemies) and for jaguar heads, which were decorated with cotton. The ritual of the temple cult consisted mainly in offering food or beer to the deities.

About the time of the new moon the priests, at break of day, conducted the people in silence to some high place, where, when they were assembled, they uttered loud cries, to soften the invisible and malignant powers of those in whom they stood in fear. They thus passed the whole day, fasting; when night approached, the priests cut off their hair and adorned themselves with red and yellow feathers, in token of joy that the propitiation had been effected. Jars of liquor were brought as offerings to the gods; they drank immoderately themselves, and gave the rest to the people, who drank and sang and danced through the night, and generally concluded the meeting with quarrels, wounds, and not infrequently, with deaths. [Lettres édifiantes et curieuses, vol. 8, p. 90, translated by Southey, 1829, vol. 3, p. 203.]

In the cult of the Jaguar Spirit, people, carrying offerings of food or chicha, gathered in front of the temple. The priest entered alone and invited the Jaguar Spirit to come by playing a flute. After a while he returned and announced that the Jaguar was eating, and then gave the signal for everybody to rejoice and drink. Sometimes the priests appeared bleeding, their clothes torn off, as if they had been fighting with the Jaguar.

Father Francisco del Rosario (1682, p. 837) gives a brief account of the religious ceremonies of the *Mojo* which may contain certain elements of truth. The *Mojo*, he says, placed in their temples crudely

carved posts which represented their gods. Around them they kept stuffed serpent skins. Men gathered in these temples but women were carefully excluded. There, divided into two groups, they sang. They beat a large wooden drum to announce the presence of the deity to which they sacrificed a duck which had been killed on a wooden bench in the plaza. During the ceremony an Indian stood outside armed with an ax, and, at a given moment, ran along the paths around the village striking the trees with his weapon. Every day at dawn the priests chanted to the accompaniment of a gourd rattle in honor of the moon. Priests prayed sitting on their benches, with lowered heads. Sometimes two priests would alternately recite a long invocation.

Like so many *Arawak* tribes of the region of Guiana and central Brazil, the *Mojo* had ceremonies in which they played trumpets and other musical instruments thought by the uninitiated to be the voices of the spirits. Neither women nor children could look at the players lest they be devoured by alligators. The spirit impersonators formed a procession called the "jumping of the alligator."¹⁵ In front walked two men decorated with feathers, shaking gourd rattles and imitating the coo of pigeons by blowing into whistles made of hollow nuts. Behind them came four men who made barking noises with gourds. Then came 12 men, each blowing a trumpet 9 feet (2.7 m.) long, that was carried by another man.

Magical observances.—The *Mojo* fasted before going on a trip or to war to procure good luck, before building a house to prevent a beam falling on them, and before hunting to insure getting an abundance of deer and to avoid being wounded by an arrow (Marbán, 1898, p. 152).

Women refrained from eating meat or any salted dish while their husbands were hunting lest the wounded deer should not die (Marbán, 1898, p. 153).

Those who built a "drinking-house" (dancing hall or temple) had to refrain from eating fish.

Food which was dropped was said to belong to spirits. The *Mojo* attributed great importance to dreams and drew augurs from the flight of birds.

SHAMANISM

Shamans were chosen by the supernatural powers in two different ways. Persons who had been blessed by a vision or had suffered an accident which deprived them momentarily of their senses were called *tiaurauqui* or seers and enjoyed the highest prestige. To obtain this title, they underwent a year of severe abstinence, at the end of which

¹⁵ "Saltum crocodile" (Eder, 1791, p. 337).

the juice of certain pungent herbs was infused into their eyes "to purge their mortal sight, and therefore they were called Tiharanqui . . . they who have clear eyes." The comocoi were those who had escaped after being attacked by a jaguar or an alligator. One who had been consecrated by the claws of a jaguar observed complete chastity for 1 or 2 years and refrained from several foods, particularly fish and cayenne pepper; a violation of these taboos exposed him to the vengeance of the jaguars. Eder does not distinguish different kinds of shamans and calls all of them "motire." Castillo (1906, pp. 352-353) draws a clear distinction between the "medicine men who cured diseases and were blessed with the power of seeing and extracting invisible serpents" and the ceremonial priests "who were encharged of the sacrifices and prayers and fasted on behalf of the whole community."

There were also women shamans who acquired their power in the same way as men. The first missionaries to the Province of Mojos recorded two cases in which women became shamans as the result of visions. One woman, victim of severe indigestion caused by overeating fish, swooned and saw lights. The shaman consulted said that she was possessed by the spirit Vire and that she would die unless she were washed from head to feet with fish broth, which the god hated. After being treated, the woman became a successful shaman. Marbán (1898, p. 154) mentions a girl who cried hysterically because "a god" had appeared to her. Her parents, however, rejoiced greatly over the event, fasted, and then celebrated the occasion by a drinking party. Female and male shamans treated patients in the same way. Some women went around the villages announcing impending disasters unless the people performed sacrifices over which they presided.

Shamans maintained close contact with the spirit world. Whenever they had to speak with spirits on important business they drank a decoction prepared from a plant called "marari," similar to our vervena, which produced a mild trance, though our sources only state that they suffered from insomnia and severe pains. *Mojo* consulted their shamans in order to discover a thief or to learn how to deal with a spirit that tormented a sick person. When a shaman was called by a sick person, he first tried to discover from the bad spirit itself what kind of offerings it wanted. If efforts to placate it failed, he rubbed the skin of the patient and applied ligatures to force the disease to a place from which it might be extracted by sucking. After sucking, a shaman generally exhibited feathers, stones, leaves, or worms, which he claimed to be the material cause of the ailment. He also gave the sick person a new heart which

had the form of a stone. As part of his treatment, a shaman also fasted and blew tobacco smoke on the patient.

When a serpent was believed to have caused disease, the patient's entire body was rubbed with foam made from certain roots (Marbán, 1898, p. 153).

Mythology.—Each community claimed to have come out of a nearby lake, hill, or field, and regarded the place as sacred.

A myth recorded among the *Mojo* recently (Pauly, 1928, p. 160) probably contains references to the creator and perhaps also some elements of the Trickster cycle. The gluttonous Moconomoco, father of men, ate all the seeds and drowned in a river. When the eagle told the famished men where Moconomoco's body was, they pulled it out of the water and the "hornero" bird opened its stomach, where all the seeds were found and recovered.

Lore and learning.—Several constellations were named after animals: jaguar, alligator, bear, and so on. They also had a myth about a celestial ostrich, who greedy for the food on earth, had its tail feathers pulled by another animal at the very moment it was about to jump from a hole in the sky.

Partial eclipses were interpreted as ailments of the Sun or the Moon, and the total disappearance of these luminaries as their temporary death. They also believed in a celestial jaguar who ate the Moon. Stars were said to be the children of the Sun and Moon and falling stars were dead stars. The appearance of a constellation, probably the Pleiades, "small parrots," marked the beginning of the year (Eder, 1791, p. 56).

ETIQUETTE

Missionaries praise the hospitality of the *Mojo*. When a group of visitors entered a village, each was saluted individually and was given food and beer. Etiquette required that the oldest men drink last and that the gourd be given back to the one who had handed it. After a meal, a bowl of water was put in front of each guest, who washed his hands. The *Bauré* stretched a cotton blanket on the ground for the guest to sit on. A party of friendly visitors was expected to announce its arrival by blowing the trumpet.

COMMERCIAL RELATIONS

The *Mojo* maintained active commercial relations with their neighbors, a fact which accounts for the reputation which they enjoyed in distant regions. They probably were acquainted with metal before the Europeans penetrated near their border, which may explain the rumors about their treasure reported by the Indians to the Span-

iards. *Mojo* traders not only visited the *Chiriguano*, but went also to the country of the *Moseten* (*Rache* or *Amo*) from whom they purchased salt, beads, and knives (Marbán, 1889, p. 140).

UNCLASSIFIED TRIBES OF THE PROVINCE OF MOJOS

It would be of little profit to science to list all the tribal names appearing in the official documents and in the Jesuit accounts of the Province of Mojos. Most of these are names of subtribes or of settlements of Indians known by more common designations. Frequently the position of these so-called "nations" is hardly indicated.

The only tribes which should be mentioned here are those about which we have some positive information.

The *Ticomeri* of the Mission of San Francisco de Borja spoke a language called *Majena* or *Maxiena* which was different from any language in the Province of Mojos (Hervas, 1800, p. 249). Castillo (1906, p. 301) places the *Mujanaes* (*Mujana*) northwest of the *Mojo*. They were an important tribe at war with the *Mojo*, who accused them of cannibalism.

The *Tiboi*, whom the Jesuits established in their Mission of San Francisco Borja, were remarkable for the shape of their heads, which they deformed in the manner described by Eder (1791, p. 219) :

The *Tiboi*, a barbarous tribe, compressed the head and the face of a child soon after birth . . . between wooden boards placed on the sides, forcing it to grow lengthwise. When any part of the head grew beyond these boards, they bound it firmly with a bandage, so that it got the appearance of a lump on the head, which they again treated in the same way, thus producing a person as it were, with three heads and a very much compressed face.

Hervas (1800, p. 249) gives a somewhat different account of the same procedure :

They tied the heads of the newly born in such a way that it ended in a pyramid. The wrapping was around the skull, that is to say the part covered with hair.

The *Chiriba* and *Chumana* (*Chiman*?) languages of the same Mission seem to have been related (Hervas, 1800, p. 250).

The *Manesono* (*Mopeseano*) were a small tribe of about 350 people living in the pampas west of Trinidad. They had a language of their own, but, when they were discovered, many of them spoke *Mojo*.

The *Subirano* are placed by Castillo (1906, p. 300) on the Securé (Chenesi) River, above the *Mojo*-speaking *Mariquiono*, who occupied the mouth of that river.

The *Cañacure* and *Pasajeono* were two tribes which, according to the *Mojo*, were to be found between the Mamoré River and the land of the *Moseten*. These were probably *Takanan* Indians.

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Adam and Leclerc (1800), Altamirano (1891), Argomosa (1906), Castillo (1906), Eder (1791), Eguiluz (1884), Finot (1936, pp. 265-298), Garriga (1906), Gibbon (1854, *passim*), Hervas (1800, pp. 247-250), Informaciones hechas por don Juan de Lizarazu (1906), Izikowitz (1935, *passim*), Keller-Leuzinger (1874, pp. 142-169), Lettres édifiantes et curieuses (1781, vol. 8, pp. 77-119), Marbán (1701, 1898), Matthews (1854, *passim*), Mautua (1906, vols. 9 and 10), Nordenskiöld (1913, 1924 b, *passim*), D'Orbigny (1839, vol. 2, pp. 224-236; 1844, vol. 3, pp. 221-256), Orellana (1906), Pauly (1928, pp. 155-160), René-Moreno (1888), del Rosario (1682, pp. 837-844), Wegner (1931 b), Zapata (1906).

KANICHANA

The *Kanichana* (*Canisi*, *Canechi*, *Kanisiana*) Indians also represented an isolated linguistic group. Before the Jesuits settled them in the Mission of San Pedro on the upper Machupo River, the *Kanichana* had lived along the Mamoré River and around the headwaters of the Machupo River and along its lower course down to the Mission of San Joaquín. They had about 70 villages in the region between 13° and 14° S. lat. and 64° and 65° W. long.

The *Kanichana* were visited in 1693 by Father Agustin Zapata, who estimated their number at 4,000 to 5,000. In 1695, the whole tribe gathered on the Mamoré River, wishing to build a large mission. Their request was satisfied a year later; a letter from Father Arlet (1781), written in 1697, describes the beginning of the Mission, to which 1,200 had voluntarily come. Even after a hundred years of disciplined life in the mission, the *Kanichana* retained their dignity and warlike disposition. They rose against the Bolivian authorities in 1801 and in 1820. In the last rebellion they killed the Governor and set fire to the building containing all the Jesuit archives.

In 1780 the population of San Pedro was 1,860; in 1797, the number of Indians in the same mission is given as 2,544. According to D'Orbigny (1839 a, vol. 2, p. 244) there were still 1,939 *Kanichana* in 1831.

Farming was less important in *Kanichana* economy than hunting and fishing; alligators were a favorite food. They caught them by passing a noose round their necks and dragging them to the shore, where other Indians killed them with axes, or else a man crawled toward the alligator holding a stick sharpened at both ends; at the moment the animal opened its mouth, the hunter, holding his stick vertically, thrust it into the alligator's mouth so that it penetrated both jaws. The prey was dragged to the shore by means of a cord attached to the stick. The *Kanichana* had large canoes.

Villages were protected by a system of fortifications. When first visited by missionaries, both men and women went naked, but once Christianized they were forced to wear cotton or bark-cloth shirts.

The *Kanichana* were armed with bows and arrows and probably had also spear throwers, judging by Father Arlet's (1781, p. 41) reference to "long and sharp reed spears which they hurled with such skill and force that they hit a man at a distance of a hundred feet." The *Kanichana* described the Amazons as women armed with spear throwers and bows and arrows.

Girls fasted eight days upon reaching puberty, which was celebrated by a drinking bout. Polygyny was widely spread and constituted one of the main obstacles which the Jesuits had to face when trying to convert them.

The *Kanichana* were extremely warlike and scourged their neighbors, the *Moré*, *Kayuvava*, and *Itonama*. Missionaries always refer to the *Kanichana* as fierce cannibals. "When they captured prisoners in their wars," writes Father Arlet (1781, p. 40), "they either kept them forever as slaves or roasted them to devour them in their banquets. They used as drinking cups the skulls of those whom they had killed." Missionaries go so far as to state that they ate their own children!

They were also greatly addicted to beer which they made of various fruits. During their drinking bouts they quarreled and fought against each other with the utmost violence. These drinking bouts were generally arranged as a reward for those who had helped a man clear his fields.

The *Kanichana* believed in a bad spirit called *Yinijama*. Father Zapata (1906, p. 26) heard a version of the myth of the Amazons and of the pygmies among these Indians.

REFERENCES

Arlet (1781), Créqui-Montfort and Rivet (1914 b), Eguluz (1884, pp. 33-34), Heath (1883, p. 683), D'Orbigny (1839 a, vol. 2, pp. 243-249), René-Moreno (1888, p. 452), Zapata (1906).

MÓVIMA

The primitive home of the *Móvima* Indians was on the left side of the Mamoré River and along the Yacuma River. These Indians were settled by the Jesuits in the missions of San Luis and Borja, on the upper Maniqui River, a tributary of the Mamoré River. The Mission of Santa Ana, near the junction of the Yacuma and Rapulo Rivers, also was formed with *Móvima*. Father Gregorio de Bolívar (1906, p. 218) speaks of the "*Moymas*" who lived down the Himana River (Mamoré River), and who were "naked people, vile and addicted to witchcraft." The main village of the *Moymas* was called Tumba. In 1709 the *Móvima* killed Father Baltazar de Espinosa.

Nordenskiöld (1922, p. 76) states that a few independent *Móvima* still dwelled on the upper Rapulo River in 1908, and Cardús (1886, p. 290) reports that several *Móvima* families, which had escaped from Santa Ana, were settled on the Aperé (Mato) River. In 1749 there were 1,630 *Móvima* in the Mission of San Luis and 1,300 in the Mission of San Borja. In 1767 the number of *Móvima* at Santa Ana was 2,000; at San Borja, 1,200; and at Santos Reyes, 1,200. In 1831 there remained 1,238.

In aboriginal times the *Móvima* were fishermen, hunters, and farmers, and, according to tradition, used spear throwers. Their arrows had feathers of the Arara type—the bisected feathers were held by narrow wrappings at short intervals—and wooden plugs to strengthen the butt of the shaft. The *Móvima* of the Yacuma River went in the dry season to the Mamoré River to sow beans and peanuts on the sandy beaches. They traveled in dugouts, 30 feet long by 16 or 18 inches wide.

A *Móvima* evil spirit was called Canibaba Kilmo.

A widower never attacked a jaguar lest it kill him.

The last *Móvima* seen by Nordenskiöld (1922, p. 76) were well-to-do agriculturists and stock raisers. They had abandoned all of their native culture except pottery cooking pans which were supported over the fire on three clay stumps.

REFERENCES

Balzan (1894, p. 27), Bolívar (1906, p. 218), Cardús (1886, p. 290), Créqui-Montfort and Rivet (1919), Giglioli (1906, p. 226), Gonsalves da Fonseca (1826, vol. 4, p. 83), Nordenskiöld (1922, pp. 76-77), D'Orbigny (1839, vol. 2, pp. 250-253).

KAYUVAVA

The former habitat of the *Kayuvava* was the western side of the Mamoré River, 15 leagues above its junction with the Guaporé River. These Indians were scattered in small settlements along the main course of the Mamoré River and along several of its small left tributaries from 12° to 13° S. lat. and between 65° and 67° W. long.

The *Kayuvava* were discovered in 1693 by the Jesuit missionary, Father Agustin Zapata. They then lived in large villages, each with a population that varied from 1,800 to 2,000 inhabitants. Father Zapata saw seven such villages. Later they were concentrated in the Mission of Exaltación, on the Mamoré River, below its junction with the Yacuma River. In 1749 there were about 3,000 *Kayuvava* in the missions, in 1831 some 2,073, and in 1909 only 100.

The ancient *Kayuvava* were good farmers who raised peanuts, sweet manioc, and maize. Their weapons were bows and arrows and chonta wood spears, which were tipped with a sharp piece of

bone and trimmed with feathers. At the beginning of the present century little of *Kayuvava* culture remained, except that they still wore bark-cloth tunics and caught fish by throwing open-top, conical baskets over them in swampy places. This type of fishing basket has been reported among the *Chunupi*, *Lengua*, *Taulipang*, *Makushi*, *Tembé*, and *Wapishiana*. A *Kayuvava* basket which Nordenskiöld collected (1924 b, fig. 53) was twined, each warp element consisting of two rods.

Kayuvava men filed their incisor teeth, a custom rare in South America and perhaps attributable to Negro influence.

The seven *Kayuvava* villages were all under the rule of a single chief.

According to D'Orbigny (1839 a, vol. 2, p. 257), the *Kayuvava* believed in a good spirit, who was the protector of all things and was called *Idaapa*, and in a bad spirit called *Mainajé*. They closed the mouth and nose of dying people to prevent the soul from leaving the body. Men did not work when their wives were menstruating.

In the Mission of *Exaltación* the *Kayuvava* were divided into eight groups, corresponding perhaps to former subtribes.

Near the *Kayuvava* and perhaps in a region occupied by one of their tribes or subtribes, Father *Agustin Zapata* found in 1695 a large village, "with streets and a central plaza." When he arrived the inhabitants, dressed in luxurious cloaks and covered with feathers, were gathered in front of a "temple," making offerings to the gods. The offerings consisted of rabbit, ostrich, and deer meat placed on trays around a fire which was never extinguished (*Eguiluz*, 1884, p. 34).

REFERENCES

Balzan (1894, p. 27), Créqui-Montfort and Rivet (1914 a, 1917-1920), *Eguiluz* (1884, p. 34), *Giglioli* (1906, p. 226), *Gonsalves da Fonseca* (1826, vol. 4, p. 82), *Nordenskiöld* (1922, pp. 77-78; 1924 b), *Teza* (1868, p. 133).

ITONAMA

The *Itonama* (*Machoto*) Indians, who spoke an isolated language, had villages scattered along both banks of the *Itonama* River from the great lagoon, *Laguna Itonama* or *Cármén*, to the *Machupo* River.

About 1720, a party of *Cruzeños*, led by their governor, passed through the newly founded missions in the Province of *Mojos* and attacked the *Itonama*, who had been approached by missionaries and were about to accept their rule. This party captured 2,000 *Itonama* and distributed them as slaves among the inhabitants of *Santa Cruz*, an outrage for which the guilty officials were fined (*Maurtua*, 1906, vol. 10, pp. 43-48).

Missionaries settled the *Itonama* in two stations. The first was Santa Magdalena, established in 1700 on the Itonama River, but its population became so large that some of the Indians were moved in 1792 to San Ramon on the Machupo River. In 1767 there were 4,000 *Itonama* at Magdalena and a few families in the missions of Loreto and Trinidad in the Province of Mojos. D'Orbigny (1839, vol. 2, p. 237) states that in 1831 the *Itonama* at Santa Magdalena numbered 2,831, while those at San Ramon were 1,984, the total being 4,815. In 1914, Nordenskiöld (1924 a, p. 188) found only 300 of these Indians in the region of San Ramon.

The recent *Itonama*, with a background of 200 years of Christianity, retained little of their aboriginal culture. They lived in large villages near the rivers and were agriculturists, hunters, and fishermen. They roasted maize meal in large flat-bottomed pans with raised edges.

Both sexes dressed in large cotton or bark-cloth shirts, often painted black, but originally women had worn a loin-cloth. Until puberty, children wore bands below the knees and above the ankles. Little girls had nothing but a string of beads around their waists.

The *Itonama* until recently still spun cotton by inserting the distal end of the spindle in a notched stick and rolling the proximal end on a log. They were the most famous weavers in the Mojos area. They made circular baskets, some of which had a hexagonal weave (lattice type); other baskets were twilled.

They used bows and arrows and double-edged clubs. Like the *Mojo*, they had slings and bolas, probably long before European contacts, but the lasso was introduced in the eighteenth century when the Jesuits started cattle ranches in the Plains of Mojos.

Child betrothal was such a deep-rooted custom among the *Itonama* that even after a century of Mission life it was still observed. Immediately after birth, children became engaged and were often put to sleep in the same hammock. Girls were married when 8 years old.

Itonama sexual morality was rather lax. At drinking bouts they exchanged wives and indulged in promiscuous intercourse.

A mother would tie the feet of a newborn baby lest its soul follow its father. To protect the infant, a father would not swim in deep water. The infant's navel cord was dried and used as a drug. The strength of marital ties grew with the number of children that a woman bore her husband; childless women could not expect much support (Eder, 1791, p. 349).

At festivals the *Itonama*, like the *Mojo* and *Kaviña*, blew a sort of huge panpipe, which actually consisted of 11 bark trumpets, varying from 2 to 5 feet in length and joined together in the same

manner as the tubes of a true panpipe. When played, these instruments "rested on the ground by means of a stick which was fastened along the longest tube" (Izikowitz, 1935, p. 225).

In spite of their acceptance of Christianity, the *Itonama* still retained some of their old religious beliefs and practices, especially an uncommon fear of ghosts (chokihua). They were firmly convinced that a deceased person's soul remained in the neighborhood of his house, fields, and other movable possessions, and that it would vent its wrath on those who encroached on his property rights. The *Itonama* consequently refused to till land after its owner died, or to exploit a tree that had belonged to an ancestor. A ghost, however, permitted living people to use his manufactured objects provided they were returned.

Ghosts, transformed into such animals as humming birds, butterflies, and serpents, either caused or foretold death.

An *Itonama* shaman was a man or a woman who had a spirit at his service. A shaman summoned his familiar spirit and asked it about a patient's fate. Disease was usually attributed to a vengeful ghost, which had captured its enemy's soul. The soul had to be rescued before it was too late. When a shaman wanted to send his soul out of his body to discover hidden things, he took a narcotic, nowadays opium, which put him in a trance. Witches changed themselves into jaguars and killed their enemies without being detected.

Black magic was rife among the *Itonama*, but shamans knew how to deal with even the worst cases of witchcraft. They used a great many herbs in their recipes.

Every animal was believed to have a mystical relationship to a plant (huabóa) which bore a slight resemblance to one of the animal's features. If the plant were associated with a dangerous species of animal, it was highly inadvisable to touch it. Medicinal plants were thought to be related to men by mystic ties.

In former times when a person was very ill, his mouth, his nose, and his eyes were closed lest death overtake other members of the community.

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CHAPAKURAN TRIBES OF THE GUAPORÉ RIVER BASIN

TRIBAL DIVISIONS AND HISTORY

The *Chapakuran* linguistic family included the following tribes: *Chapakura*, *Kitemoka*, *Rokorona*, *Itenes* or *Moré*, *Huanyam*, *Kumana*, *Turá*, *Arara*, and *Arikême*.

In 1794, the Governor of the Province of Mojos, Miguel Zamora, formed the new Mission of Nuestra Señora del Carmen with a group of 185 wild Indians who were taken from the forests of the upper Rio Blanco and settled in their new home together with 205 Christian *Bauré*. The *Bauré* converts, who actively helped to round up and transfer these Indians, called them *Guarayos*, a general term given by civilized Indians and mestizoes to all independent and warlike Indians. These *Guarayos* or, as they were also called, *Carmelitas*, were later designated as *Chapakura* by the local authorities. A powerful *Tapacura* nation had existed in the seventeenth century in the region from which these Indians came. The name *Tapacura* occurs in most accounts listing the native tribes of the Province of Mojos. There are frequent references to these *Tapacura* in the several relations of Gonzalo de Solís Holguín's journey. They were neighbors of the *Toro* (*Mojo*), were friendly to the Spaniards, and 100 of them took part in the ill-fated Mojos expedition. When Gonzalo de Solís Holguín entered the Province of the *Tapacura* he was accompanied by a priest, Father Gerónimo de Villarnao, who was most anxious to convert the *Tapacura*, because another priest Father Ortiz had already worked among them (Maurtua, 1906, vol. 9, pp. 193-194). Some *Tapacura* Indians were *yanacona*, that is to say, serfs of the Spaniards. From these statements, it appears clearly that European contacts with these Indians go as far back as the beginning of the seventeenth century. The *Tapacuraca* Indians of the Mission of Concepción de Chiquitos, were probably the same as the *Tapacura* (the ending *-ca* is nothing else but the plural suffix in *Chiquitoan*), though Hervas (1800, p. 157) lists them among the *Chiquitoan* tribes.¹⁶ The *Chapakura* from the upper Rio Blanco, taken to the Mission of Carmen, spoke the same language as the *Kitemoka* and *Napeka* Indians of the Mission of Concepción de Chiquitos.

¹⁶ Lucas Caballero (1933, p. 18), discoverer and missionary to the *Manasi*, describes that nation as composed of *Tapacura* and *Quimomeca* Indians "who were a single nation, with the same language and customs differing only in a few words." He adds that all his information on the *Manasi* came from Indians of these two tribes. In the rest of his account, he always has in mind both the *Tapacura* and the *Quimomeca*. Were these *chiquitoan* "Tapacura" the same as the *Chapakura* who were taken to the mission of El Carmen? The question cannot be answered categorically though the habitat of our *Chapakura* coincides more or less with that of the *Tapakura*. We must suppose that the Jesuits were misinformed when they classified the *Tapacura* among the *Chiquito*. Eguiluz regarded the *Tapacura* as *Mojo* Indians ("que son de la lengua moxa").

The original home of the *Chapakura* (*Tapacura*, *Huachi*, *Guarayos*) was the middle and upper course of the Rio Blanco (Bauré), around Lake Chitiopa, and north of Concepción de Chiquitos. The *Kitemoka* and *Napeka* were two subtribes who had been persuaded by the Jesuits to settle with the *Chiquito* and other tribes in the Mission of Concepción de Chiquitos. In 1831 *Chapakura* and *Kitemoka* numbered together about 1,350 individuals.

The Indians whom D'Orbigny called *Itenes* or *Ité* were those with whom Heinrich Snethlage established friendly contact in 1935 and to whom he restored the ancient name *Moré* (in eighteenth century *Muri*). These Indians applied to themselves the name *Itoreauhip*, but they were known among the mestizoes and civilized Indians as *Guarayos*. The *Moré* lived in the large triangle formed by the Mamoré and the Guaporé Rivers and on the Machupo, Itonama, and Blanco (Bauré) Rivers above their confluence with the Guaporé River, in an area delimited by 13° and 12° S. lat. and 63° and 64° W. long. On the Mamoré River, the *Moré* reached the vicinity of the Mission of Exaltación. In 1884 a few families had crossed to the left side of that river, where they joined the *Chakobo* and *Sinabo* groups.

In the eighteenth century a great many *Moré* resided in the missions of San Simón, San Judas, and San Miguel, which were later destroyed. The 4,000 Indians of the Mission of San Miguel, near the junction of the Guaporé with the Blanco (Bauré) River, were mainly *Moré* (Gonsalves da Fonseca, 1826, p. 108). Some of the Indians of the Mission of Santa Rosa del Itenes, destroyed in 1742, were *Moré* Indians.

The *Huanyam* (*Abitona-Huanyam*, or *Pawumwa*) had their villages on the San Miguel River, a right tributary of the Guaporé River. In 1914 they numbered about 300. The *Kumana* were on the right side of the Guaporé River, near the ancient fort Principe da Beira.

The Indians living at the foot of the Serrania de San Simón, and often called *San Simonianos*, were the *Chapakuran*-speaking Indians who, in the eighteenth century, were concentrated in the missions near the San Simón River, a tributary of the Blanco (Bauré) River. The *Rokorona* or *Rotokona*, of the Mission of Santa Rosa, were one of their tribes. There were two isolated groups of *Chapakuran*-speaking Indians, one (*Moré* and *Ocorono*) in the Mission of San Ignacio, on the Tijamuchi River, a left tributary of the Mamoré River, and the other (*Herisabokono*) in the Mission of San Borja, near the headwaters of the Rapulo River, also a tributary of the Mamoré

River.¹⁷ The presence of these *Chapakuran* enclaves in *Mojo* territory can be explained by the shifting of tribes which took place when the Jesuits concentrated the Indians in their missions,

Snethlage estimates the number of the modern *Moré* or *Itenes* to be between 3,000 and 5,000.

SUBSISTENCE

Farming.—All the *Chapakuran*-speaking Indians were agriculturists. The *Moré* opened their clearings during the dry season and burned the felled trees after the first rains. They set as many as three yuca cuttings in holes dug with hard sticks and fertilized with a deep layer of ashes. Between the yuca they sowed maize and planted several varieties of sweetpotatoes and yams. Cotton and rucu shrubs and banana trees were scattered over the fields and pineapples were planted along paths. Women helped weed and harvest the crops, but men did most of the work of farming. Men even carried the harvested crops home. Each family owned and tilled a field which nominally belonged to the family head. As fields continuously yielded one crop or another, there were only short periods of scarcity. Food was stored in holes dug beneath the huts. The *Huanyam* cultivated cara, maize, sweet manioc, sweetpotatoes, cotton, bananas, papayas, gourds, rucu, and tobacco, but lacked peanuts and cayenne pepper. Banana trees were planted around the huts.

Collecting wild foods.—Wild plant foods included Brazil nuts, which were almost a staple, mangaba, wild cacaos, and fruits of various palms. The *Huanyam* relied greatly on turtle eggs. When gathering wild foods, the *Moré* lived in small triangular shelters.

Hunting.—The most important game was the wild pig; deer meat was taboo to both the *Moré* and *Huanyam*. The *Moré* shot waterfowl from beehivelike shelters built on the flooded pampas and constructed so that they could be entered only by diving.

Fishing.—Fish were shot with bows and arrows, caught in conical baskets placed in palm-leaf dams, or drugged with a poisonous creeper.

Food preparation.—The staple food was sweet manioc. Manioc tubers were peeled with a bamboo-splinter knife, washed, and grated on the thorny roots of the *Paxiuba* palm. The mass was boiled, care-

¹⁷ According to the Jesuit missionaries of the eighteenth century, the *Ocorona* language was spoken in the missions of San Ignacio, San Martin, and Santa Rosa. Hervas (1800, p. 250) classifies the following languages in a single linguistic family: *Ocorona* or *Orocotona*, *Rocotona*, and *Herisobocona*, but the missionaries distinguished the *Ocorona* from the *Rotorona*. Brinton and Créqui-Montfort and Rivet identify the *Rokorona* language, which is a *Chapakuran* dialect, with the *Ocorona*, *Rokorona*, *Rotokono*, etc. Chamberlain (1913, p. 238) is not convinced by Créqui-Montfort's and Rivet's hypothesis.

fully skimmed with a plaited spoon, strained through a mat of thin sticks, and roasted on a fire pan. Manioc flour was either consumed at once or kept in a bark-cloth bag. Wafers of manioc or maize flour were roasted in a pan; manioc buns were baked in the ashes. Starchy manioc juice was boiled repeatedly and drunk cold. Maize was pounded in a wooden trough with an oval stone or a heavy wooden grinder. Game and fish were broiled on a pyramidal babracot.

Pets.—Like all tropical Indians, the *Huanyam* and *Moré* kept many pets, especially birds, for which they made small cages. The *Moré* plucked their tame ara to obtain feathers for arrows.

VILLAGES AND HOUSES

Moré and *Itoreauhip* houses were generally located near plantations. These were either large single lean-tos, 15 feet (4.5 m.) to 40 feet (12 m.) high, covered with imbricated motacu palm leaves, the open side often being covered with a sun screen of *Astrocaryum* leaves, or were double lean-tos joined to form a gable roof. *Huanyam* huts clearly developed from joining two simple lean-tos together. The *Kumana* had an oval house with a door at each end.

The *Moré* and *Huanyam* took refuge from mosquitoes in small cabins tightly thatched with patohu leaves. The *Moré* also built small shelters to be used as workshops and as men's clubs. Temporary shelters erected in the forest consisted of a few palm leaves placed horizontally on three perpendicular poles.

Hammocks were usually manufactured of cotton threads, but a few were made of wild fibers. To hang them, a loop was attached to a post and passed over a stick that ran through each end of the hammock. Hammocks were commonly used as seats. *Moré* wooden benches were mainly ceremonial accessories.

DRESS AND ADORNMENTS

The *Huanyam* and *Moré* men's dress was the long bark-cloth shirt, which, however, was often discarded if it interfered with bodily movement or if there were risk of its being damaged by water. *Moré* and *Huanyam* women wore the same garment although *Huanyam* women often were completely naked. When a *Moré* woman had to go without her shirt, she wore a bark-cloth skirt. Women's tunics were shorter and plainer than those of men. Over the shirt, a *Huanyam* man wore a bark-cloth jacket that was open in front. *Moré* and *Huanyam* shirts were generally dyed with rucu; those of the *Moré* also were decorated with painted bark-cloth bands sewn or glued together. Married men among the *Moré* wore outside their shirts a belt of bark cloth adorned with various geometrical patterns.

Huanyam men tied up the foreskin of the penis with a cotton thread and tucked it under a string belt.

Moré men and women and *Huanyam* women tied plaited cotton ligatures around the fleshy parts of their limbs.

Both sexes among the *Moré* had small holes in their lower lips into which they inserted resin spikes, wooden sticks, feathers, small grass blades, or *Astrocaryum* thorns.

Adult *Huanyam* women thrust large conical quartz labrets in their lower lips and smaller ones in the upper lips; girls used only resin spikes as labrets.

Both sexes among the *Moré* passed a stick through the nasal septum to prevent disease from entering their bodies. Among the *Huanyam* and the *Moré* everyone wore sticks or feathers in his pierced ear lobes. A typical *Huanyam* ornament was a fiber band with long hanging fringes, attached around each bicep. *Huanyam* women wore around the upper arm a bracelet of seeds with triangular shell pendants.

Huanyam and *Moré* festive attire included feather headdresses, monkey- or sloth-skin caps (*Huanyam*), bark-cloth frontlets, feather bracelets, ear sticks trimmed with feathers, and *Astrocaryum* or feather rings (*Moré*). Necklaces were made of seeds and of animal teeth.

Men and women parted their hair in the middle and clipped it at shoulder level, but *Itoreauhip* men sometimes tied it up in a topknot with a bark-cloth band. Combs were of the composite type. Both sexes plucked all the hair from their bodies, eyebrows, and even eyelashes. They believed that eyelashes impaired the vision.

The *Huanyam* skillfully painted their bodies with black and red stripes, frets, reticulated surfaces, dots, zigzags, and other geometric designs. The *Moré* rubbed tucum oil mixed with rucu on their bodies and hair and painted black oblique cross-hatching on their legs.

TRANSPORTATION

Moré dugouts were as much as 33 feet (10 m.) long and were propelled with narrow paddles which lacked a knob or crutch on the handle. Formerly, the *Huanyam* had bark canoes.

Babies were carried in a bark sling.

MANUFACTURES

Bark cloth.—For bark cloth, the *Moré* used several species of trees, including the bibosi (*Ficus* sp.), each yielding bark of a different color. The outer bark was discarded. The inner bark was beaten with the edge of a flat wooden mallet (the mallet of the *Kumana* was round) to detach it from the wooden layer; then it was cut

to proper size. Patches of bark were hammered on a smooth log, wrung thoroughly, dried, and sewn together. Men were their own and their wives' tailors. Decorative effects were achieved with strips or patches of different colors glued or sewn together with cotton threads. Sewing needles were of bone or of *Astrocaryum* wood.

Cordage and weaving.—The *Moré*, although they had no direct contacts with Whites, carded cotton with small bows, a device generally attributed to European influence. Thin cotton threads were made with drop spindles of the modern Andean type, which had a fruit or a wooden disk for a whorl and a small hook at the proximal end. Thicker strings or ropes were manufactured by the roll method: Cotton was first twisted by hand, then attached to the toes and twisted again by means of a spindle rolled up and down the left thigh. The threads had to be spun several times before they were ready for use.

Bands to be worn around the upper arms and legs (by the *Huanyam* and *Moré*) were woven on a small loom formed by lashing two transverse cross bars to a frame made of a forked branch. The warp was wound around the two cross bars. The final pattern of the fabric was obtained by crossing the warp threads with wooden splinters which were removed as the weft was passed in to hold the warp threads in place. Hammocks were made by wrapping the warp around two vertical posts and by passing across a twined weft at set intervals.

Pottery.—Pots were made of a dark clay mixed with the ashes of a kind of sponge that floats in flooded forests. The sponges contained calcium spiculae that gave unusual strength to the clay. Vessels were coiled, then scraped with shells and polished with pebbles. After the clay had hardened, the pot was dried before a screen of patohu leaves behind which a fire burned. The dried pot was then covered with logs and fired in the open. *Moré* and *Itoreauhip* pots were blackish and only rarely were decorated with painted geometric designs; many of these pots had "ears." Large jars tapered to a point, which was stuck into the sandy ground.

Basketry.—Basketry, which included mats, sieves, fire fans, knapsacks, and rectangular baskets, was woman's industry. *Moré* men wove only the temporary bags for carrying wild fruit or game. The *Kumana* wrapped strips of bark around their carrying baskets to make them waterproof.

Tools.—The *Huanyam* and *Moré* carved wood with agouti incisors hafted to a stick, with piranha teeth, or with bird bones. Holes were pierced with bone awls.

Weapons.—The *Moré* bow was made of strong palm wood; it was long and had a convex cross section. One end was partly reinforced

with a decorative wrapping of bark strips or cotton threads of various colors in which feathers might be inserted. The bowstring was of cotton or, occasionally, of palm fibers.

Moré and *Huanyam* arrows had large lanceolate bamboo heads, sometimes artistically jagged along the edges. The *Moré* drew conventionalized serpent designs on such heads. The *Huanyam* and *Moré* commonly attached splinters of human bone to the wooden shaft either as points or as barbs. Since *Huanyam* arrows were poisoned with curare, their points were kept covered with a bamboo sheath to prevent accidents. *Moré* bird arrows were made of reed, the root end of which formed a bulging head. *Kumana* arrows were tipped with a tapir tooth inserted into a lump of wax. Fish arrows had from one to three points. Among the *Moré*, arrow feathers were sewn, i. e., the bisected feathers were held by threads passing through holes pierced in the reed shaft. *Huanyam* arrow feathering was either sewn or of the Arara type: two halved feathers were fastened to the shaft by narrow, closely spaced wrappings of thread. Some *Moré* arrows had three or even four feathers, which the Indians believed increased their speed. In order to recognize their arrows, the *Moré* marked them with spots of color or wrappings of feather quills. A few *Moré* arrows had a hollow nut near the tip which produced a whistling sound when shot. For the release, an arrow was held between the index and the third finger. A strip of bark cloth protected the wrists of *Moré* archers.

The *Huanyam* hunted with bamboo blow guns about 6 feet (2 m.) in length. Blowgun darts usually were made of thin palm splinters and were kept in a quiver which consisted of a section of bamboo tube enclosed in a palm spathe. They were poisoned with curare.

Fire.—The *Moré* produced fire by twirling a long stick between the palms of the hands. Cotton or bark cloth was used as tinder. Plaited fire fans were rectangular in all tribes except the *Kumana*, who made them hexagonal. For torches, pieces of bark were dipped in wax.

SOCIAL ORGANIZATION

The only chiefs were family heads, who had little authority.

LIFE CYCLE

Although infant mortality among the *Moré* was high, families with two or three children were common.

Each *Kumana* received several names.

Puberty.—When a *Huanyam* girl came of age, the shaman, assisted by other men, who prevented her from moving, pierced her upper and lower lips. Her mother or maternal aunt then thrust a large

labret in one hole and a small labret in the other hole. It was considered immodest for a grown woman to be seen without her lip ornaments.

Adulthood.—In *Huanyam* settlements the disproportion between the sexes was so great that married women were permitted to have extramarital intercourse. The *Moré* were, as a rule, monogamous; only one man was observed to have two wives, and of these one had been a widow.

Huanyam parents and children-in-law turned their faces away when speaking to each other; the same avoidance existed between cross-cousins.

Death.—The *Moré* did not inter their dead, but covered them with a conical heap of leaves and grass, then destroyed the property of the deceased. The bones were later collected in baskets covered with lids and were kept in the houses. Women in mourning painted their backs black. The *Kumana* buried their dead in a circular grave over which they sometimes built a roof.

When death approached, a *Huanyam* distributed his possessions among his heirs. After he had breathed his last, his past deeds were celebrated in a chant. He then was wrapped in his hammock and buried outside the house in a circular grave surrounded by a high fence.

ESTHETIC AND RECREATIONAL ACTIVITIES

Art.—Belts and bark-cloth frontlets were decorated with various geometric figures, a favorite design being a sinuous line called "serpent." Certain other patterns also had animal names. Designs were often produced with a primitive stamp made of bamboo or with sticks. The *Huanyam* engraved figures, some of which were very realistic, on trees.

Games.—Children's games included: Target shooting with miniature arrows tipped with wax; tops; blowing into twisted blades of grass to make funny noises; whirling a buzzer made of a clay disk on a string; throwing a shuttlecock made of maize leaves into the air and catching it on the palm of the hand; wrestling; and racing. Children also played with small figurines of people, animals, or plants that adults carved of wood or made of clay or wax. Many of these figures were so conventionalized as to be unrecognizable.

Dances.—The *Moré* and *Huanyam* danced with a ceremonial club wrapped with cotton threads and decorated with bunches of feathers. *Moré* men danced in small groups, holding each other's hands and walking to the rhythm of songs, the words of which were changed continually. Women accompanied these songs, but did not dance. *Kumana* and *Huanyam* men and women danced in a circle or walked back and forth.

Music and musical instruments.—The *Moré* were conspicuous for their great variety of musical instruments. Drums were a slit palm spathe beaten with a stick. The taran, used only for a special child dance, was a calabash which was slid up a stick, then allowed to drop so as to produce a thud when it hit the lower and thicker part of the stick. The friction idiophone was a calabash with a semicircular opening which emitted sounds when the wax-coated edges of the slit were rubbed with the wet palm of the hand. Gourd rattles often had one side patched with a fragment of calabash to modify their resonance. On most of these rattles the handle passed through the gourd, but the *Moré* often lashed the gourd to the end of the handle. *Kumana* shamans used a tubular rattle made of a joint of bamboo. The musical bow was played by using the mouth as a resonator and striking the two strings with a bamboo splinter.

Ordinary trumpets were tubes either of simple bamboo or of light wood. The *Abitana-Huanyam* had globular clay trumpets. Some *Huanyam* trumpets had a bell modeled of wax and affixed to a long tube of human bone. The *Huanyam* also had a trumpet with a wide bamboo resonator, a slender bamboo tube, and a separate mouthpiece.

The *Moré* made music by blowing into reed tubes that were longitudinally slit, or into clarinet mouthpieces provided with a vibrating tongue.

Transverse flutes without stops were very common; sometimes both ends, sometimes only one end of the tube was closed. Several notes were obtained by opening or closing the open end with the hand. If both ends were open they were alternately opened and closed with the fingers.

Some end flutes were simple tubes with or without notches around the mouth; others, more complex, had three stops, a sound orifice, and a wax deflector near the proximal end.

Panpipes were exceptional in their number of tubes, some having as many as 20. The pipes were either held together by winding a cotton thread around them (simple ligature) or were bound between two sticks (*Uaupés* ligature). The *Moré* tied long and short whistles together, thus making an aberrant type of panpipe.

When a group of Indians made music, each person played for himself without heeding his fellow musicians.

Alcoholic beverages.—The *Chapakura* prepared beer by fermenting sweet manioc juice with chewed manioc flour.

SHAMANISM

Kumana shamans claimed to be able to climb to the sky on an arrow chain made by shooting each arrow into the butt of the one

previously shot. Upon reaching the sky the shamans were welcomed by Namakon, the lord of the sky.

Sick people were treated by rubbing their bodies with medical plants, by blowing on the ailing regions, and by making gestures as if some obnoxious substance were being driven away. Scarifications were made with snake fangs attached to a wooden handle.

When effecting a cure, a *Huanyam* shaman induced a trance by smoking a great many cigarettes that contained a fine powder and resin fragments. His treatment consisted mainly of blowing smoke on the patient.

MYTHOLOGY AND LEARNING

Aijimo, the first *Kumana*, had a wife called Zaré and a son called Kumana. They were driven by the *Tapoaya* from a mountainous region and arrived at a large river (the Guaporé), but were driven from its banks by the *Moré*. They settled on the spurs of the Serra do Norte, on the headwaters of the San Domingues River. Zaré was finally killed and eaten by her husband, or, according to another version of the story, by her mother-in-law.

The *Kumana* believed the rainbow to be a celestial serpent who, when people looked at him, became angry and threw stones at them.

REFERENCES

Burela (1912, p. 455), Cardús (1886, pp. 287-288), Chamberlain (1912), Créqui-Montfort and Rivet (1913 a), Gonsalves da Fonseca (1826, p. 108 ff.), Haseman (1912), Nordenskiöld (1924 a, pp. 243-252; 1924 b), D'Orbigny (1839, vol. 2, pp. 217-223, 258-261), Snethlage (1937, pp. 1-98; 1939).

GUARAYÚ AND PAUSERNA

TRIBAL DIVISIONS AND HISTORY

The *Guarayú* and *Pauserna* (*Itatin?*, *Carabere*, *Araibayba*, *Moterequoa*) belonged to the same tribe, but became distinct groups when the ancestors of modern *Guarayú* consented to live in missions. The precise former habitat of these Indians is not known. They probably lived mainly along the Upper San Miguel (Itonama) River and between it and the Blanco River, that is, between approximately 16° and 15° S. lat. and 63° and 64° W. long. The whole *Guarayú* nation was later distributed among five missions: Yotaú, Ascension, Urubichá, Yaguarú, and San Paulo.

The *Pauserna* (*Guarayú-tá*) were established on the left side of the upper Guaporé River, where the pao cerne tree is abundant; hence the name *Pauserna*. Formerly they were very numerous, reaching the banks of the lower Paragua River and its tributaries. In 1935, only two groups of *Pauserna* remained, one at Bella Vista and the other on the lower Paragua River, which together hardly numbered

50 individuals. They had lost most of their ancient culture and carried on a very precarious existence. Fonseca (1880-1881, pp. 168-171) found *Pauserna* along the left side of the Guaporé River, extending from a little north of the Paragua River to the da Pedra River; the main villages were Pao Cerne, Las Flexas, Jangada, Veados, and Acarisal.

The *Guarayú* and *Pauserna* are descendants of the *Guaraní* Indians of Paraguay, who at the end of the fifteenth, and beginning of the sixteenth century crossed the Chaco and Chiquitos in several groups to raid the borders of the *Inca* Empire, and then settled along the Cordillera, forming the powerful and numerous tribe of the *Chiriguano*.

Domingo Martinez de Irala and Alvar Nuñez Cabeza de Vaca found isolated *Guaraní* communities scattered almost all the way from Port of Los Reyes, 17°50' S. lat., to the region which now corresponds to the Department of Santa Cruz de la Sierra in Bolivia. There were also *Guaraní* groups near the Lake of Xarayes. It appears likely that the *Guaraní* migrations took place in successive waves, the first, perhaps, during the reign of the Inca Yupanqui (1476). Another invasion of *Guaraní* must have occurred around the years 1513 to 1518, but apparently met with disaster. In a document of the beginning of the seventeenth century written by Father Felipe de Alcaya, curate of Mataka (Felipe de Alcaya, 1906), among many fabulous stories there is a fairly detailed account of a *Guaraní* migration which started from the Lake of Xarayes and ended in the plains of Grigotá, near the present city of Santa Cruz. A party of these *Guaraní* stayed in the Province of Itati in Chiquitos (which is not to be confused with the Province of Itati north of the Apa River). These *Itatin* Indians, who lived 35 leagues from the first city of Santa Cruz, near the mountain range of San José, are often mentioned in the ancient documents. Much attention was paid them because of the copper and lead mines supposed to exist in their territory and because they were on the border of the fabulous kingdom of Mojos (Suárez de Figueroa, *in* Mujía, anexos, vol. 1, p. 538; Perez de Zurita, 1885, p. 172).

In 1564, Nuflo de Chaves, returning to his province from Paraguay, brought with him 2,000 to 3,000 *Itatin*, Indians of the Province of Itati, who were willing to settle in the new country. Were the *Itatin* of Chiquitos *Guaraní* Indians who had migrated in 1513, or were they the *Itatin* of Nuflo de Chaves who settled there in 1564? The second hypothesis is more likely, because Father Alcaya is a dubious authority and because the best document on these *Itatin*, written in 1586 by Jesuit missionaries, clearly refers to a recent migration: an *Itatin* woman complained of a slap received in Paraguay 20 years

earlier, which put the date of exodus of the *Itatin* around 1564.

The migration of the *Itatin* was instigated by the Spaniards, but if these Indians readily accepted the invitation of Nuflo de Chaves, it was because migrations of other *Guaraní* had familiarized them with the country beyond the Chaco. They probably regarded the crossing of the plains of Chiquitos as a normal and easy trip. In accompanying the Spaniards to the foot of the Andes, they followed the example of a great many of their kinsmen who, during the first half of the sixteenth century, had led Spanish adventurers to the lands of the west. Moreover, the *Itatin* knew that near the Andes they would find a great many of their kinsmen.

Nuflo de Chaves was murdered in 1568 by the *Itatin* for reasons obscure to us. Subsequently, the same Indians fought hard against the Spaniards.

It is probable, if not certain, that these *Itatin* of the Province of Chiquitos were the direct ancestors of the *Guarayú* and *Pauserna*. The Spaniards in the sixteenth century already called them *Guarayú*, though this term was also applied to the *Chiriguano*. It is true that in the Jesuit document of 1586 on the *Itatin*, the *Varai*, or *Guarayú*, seem to be distinguished from the *Itatin*, but the difference between them is not clear and the ethnographic description implies that *Itatin* and *Varai* were the same people. The *Guaraní*, who still lived near the upper Paraguay in the eighteenth century, were called *Guarayú* (Fernández, 1895, vol. 1, p. 207). None of our sources gives the direction in which the *Itatin* "35 leagues away" from Santa Cruz de la Sierra had settled, but they place them near the land of the *Mojo*, that is to say, exactly where we find the *Guarayú* today.

That *Guaraní* Indians established themselves near the *Mojo* sometime in the sixteenth century is further confirmed by an official document. The Spaniards, who were called in 1636 to give any information they had on the land of Mojos, reported the account of a *Chiriguano* who told them that Indians of his nation

had reached the Province of Maure (Bauré), crossing other large provinces; from there they wanted to go to the *Poroquicoa*, who were a large tribe living behind mountains stretching in front of the *Bauré*, but these *Bauré* waged war against them putting them to flight. The war and ambushes which they had to face in the regions through which they passed forced them to divide and scatter; some stayed on the Guapay River and became the *Moperecoa*, others went on toward the Timba and became the *Tembe*, others stayed on the Pirita-guari River, where the Spaniards found them, and still others went to the Manati [River?] and to Paraguay. [Relación de la entrada de Gonzalo Solís Holguín, in Maurtua, 1906, vol. 9, p. 141.]

The Spaniards of Solís Holguín's expedition met these *Moperecoa* after they had passed through the land of the *Tapacura* (*Chapakura*), east of the San Pedro River. They called them "*Chiriguano*,"

thus confirming their informant's statement. These "*Chiriguano*," or *Moperecoa*, who lived between the Provinces of Chiquitos and Mojos were the *Guarayú*. An earlier document (*Relación verdadera del asiento de Santa Cruz de la Sierra*, Mujía, 1914, anexos, vol. 1, p. 527) refers to "*Chiriguano*" Indians, called *Pirataguari*, 45 leagues north of Santa Cruz, near the *Chiquito*, who had been allotted to the Spaniards. These were the "*Chiriguano*" who had told the Spaniards about the marshes of Mojos and about the "rich land." Their location is exactly that of the modern *Guarayú*.

Jesuit missionaries visited the *Guarayú* on several occasions at the end of the sixteenth century and baptized 1,200 of them. Father Cipriano Barrace went into their country in 1695 from the Mission of Trinidad and found them living in 76 villages. The *Guarayú* gave him "beautiful and exquisite featherwork." However, no attempt was made to found permanent missions among them. At the beginning of the eighteenth century, a few *Guarayú* were taken to the Mission of San Xavier in the Province of Chiquitos, but these Indians soon returned to the bush. The Mission of Juan Bautista de Guara-yos, founded before 1715 on the Ubay River, near Baurés, was formed of *Guarayú* Indians as is indicated by its name. *Guarayú* also were established by the Jesuits in the *Chiquito* mission of San José de Buenavista or Desposorios. After a quarrel between these *Guarayú* and the *Chiquito*, the former were taken to the Mission of Santa Rosa, located near the junction of the Bauré and the Guaporé Rivers. When Santa Rosa was destroyed by the Portuguese in 1742, some of these *Guarayú* took refuge in the Mission of San Pedro, others were captured by the Portuguese.

In 1703, Father Juan Patricio Fernández (1895, vol. 1, pp. 206-209) starting from the Mission of San Rafael of Chiquitos made an attempt to reach the Paraguay River. He found a great swamp that other Jesuit explorers had mistaken for the Paraguay River, but finally arrived near a lagoon where the Paulista slavers left their canoes when raiding the *Chiquito*. *Penoqui* Indians told him that the *Guarayú* of the Paraguay River were not far away and, in fact, Father Patricio Fernández found a small village of *Guarayú* Indians, whom he took to the Mission of San Juan Bautista.

In 1793, an expedition under D. Juan Verdugo, sent by the Governor of Chiquitos to find a road between that province and the region of Mojos, discovered a group of *Guarayú* settled in a village on the San Miguel River. A priest, D. Gregorio Salvatierra, shifted this first "reducción" nearer to San Xavier and founded the Mission of San Pablo on the San Miguel River. The mission had a good beginning, but in 1799 all the Indians abandoned it to follow a prophet, Luis, who started one of the messianic movements so common among the *Tupi*-

Guaraní. He told the Indians that the "Great Ancestor had made revelations to him by means of the stamping tubes and had ordered him to tell the Indians to leave the Christians and to come to Irapinta where the Ancestor was to take them all away." The Indians, instigated by Luis, discarded their mission clothes and built a dancing hall in which they celebrated ceremonies in the hope of being taken to heaven by their Ancestor. At first they put themselves wholeheartedly under their prophet's guidance, but then, probably as a result of their disappointment, began to break off into smaller groups which scattered and started new settlements with independent dancing halls. In 1811, a group of *Guarayú* returned to San Xavier and offered to form a mission. Their request was granted and a mission was founded at San Luis on the left side of the San Miguel River. Two other missions were established at the same time, one at San Joaquin and the other at San Pablo, near the San Miguel River. Two new missions also were founded in 1820 on the San Miguel River—Trinidad and Santa Cruz. The *Guarayú* who were in these missions under the direction of secular curates, however, were few and showed little disposition to become real Christians. Two years later the *Guarayú* who had helped the Spaniards quell the *Mojo* rebellion were put in the care of the four Franciscan missionaries, among them Father Francisco Lacueva, of Tarata. These missionaries traveled through the bush to gather more *Guarayú*. Again their work progressed satisfactorily until Luis, the prophet, who had shown some disposition to adopt Christianity and even had helped the Spaniards in their war against the *Mojo*, fled the missions taking with him a great many Indians. Once more the *Guarayú* built dance halls and tried to reach the land of the Tamoi or Ancestor by dancing and singing. When Bolivia became an independent country, the Franciscan missionaries, with the exception of Father Lacueva, were sent back to Spain. The missions, now entrusted to curates, declined rapidly and the Indians deserted San Joaquin and San Pablo, some resuming their old ways, others being subjected to the corrupting influences of traders and adventurers.

In 1840, the Franciscans regained control of the *Guarayú*. They shifted the ancient missions of Trinidad and Santa Cruz to more suitable sites and in 1844 founded the new missions of Ubaimi and Yaguaru. The missionaries feared that if the Indians remained in their old villages, they would be influenced by those who still lived in the forest and were inciting the converts against Christianity. The removal of the mission was strongly opposed by Luis. The Fathers, accompanied by a troupe of armed *Mojo*, traveled all over the *Guarayú* region forcing isolated communities to join the missions. Even Luis was obliged to capitulate. In 1850, the village of Ascension was put

under the jurisdiction of the Franciscans, and in 1858 these founded the Mission of San Francisco de Yotaú.

In 1884, there were 4,439 Indians in the four missions of Yotaú, Ascension, Yaguarú, and Urubichá. The number of *Guarayú* in 1915 was 6,364; in 1919, after the influenza epidemic, only 5,607.

SUBSISTENCE

Farming.—*Guarayú* territory, famed for its beauty and fertility, required little cultivation to produce abundant crops. The *Guarayú* cultivated maize, yuca (*Manihot aipi*), peanuts, beans, pumpkins, tobacco, pineapples, cotton, rucu (*Bixa orellana*), bananas, and, probably after the establishment of the mission, sugarcane, papayas, and even rice. More information is available on the *Pauserna*, who, in addition to the plants just listed, grew Cayenne pepper, cara (*Dioscorea*), caripo (*Dioscorea*), sweetpotatoes, and hualusa (*Colocasia esculenta*).

The *Guarayú* are said to have opened new clearings at frequent intervals; their plantations consequently were sometimes at a great distance from the village. Among the *Guarayú* and *Pauserna*, both sexes cooperated in farming. Men sowed maize; women planted yuca. Women gathered and transported yuca tubers and bananas.

Clearing and perhaps tilling fields were collective undertakings. Anyone needing assistance prepared food and a large amount of beer in advance, and invited all his relatives and fellow villagers to his house. They worked in anticipation of the feast while the host supervised them or idled in his hammock.

Hunting.—Our sources pass over hunting methods. Nordenskiöld (1924 b, p. 69, fig. 19) illustrates two fall traps built by these Indians. In one, a heavy log is suspended from a cross bar, consisting of a forked and a plain pole held together by the pressure of a string connected with a trigger. If the animal touches a stick which holds the trigger in position, the string slackens, the two pieces forming the cross bar fall apart, and the log crushes it. The other fall trap is for pigeons and consists of a board set on an angle and resting on a short stick which also is kept in a horizontal position by a string attached to a trigger. When the bird moves the stick, pressure on the trigger is released, causing the board to fall.

Fishing.—Fish were shot with bows and arrows, caught with hooks of European manufacture, or poisoned with the sap of a tree, *Hura crepitans*. Small fish were taken in dip-nets mounted on a ring or in plaited sieves placed among aquatic plants. Fish baskets were set below wattled leaf weirs. Eels were killed with spears used in pairs or were driven into big oval baskets by men who struck the bottom of the stream with sticks.

Food preparation.—The *Guarayú* ground maize in a hollow tree trunk with a long wooden pestle. Sweet manioc flour, the staple of the *Pauserna*, was made by grating the tubers and then straining the mass through a round sieve.

HOUSES

The ancestors of the *Guarayú*, the *Itatin*, who migrated to Bolivia in the sixteenth century, retained for some time the long communal hut without partitions, which they had formerly built in Paraguay. The huts were 100 feet (30 m.) long. In the first half of the nineteenth century, the *Guarayú* lived in octagonal houses with wattle-and-daub walls. Each house was owned by an individual family. The modern *Guarayú* were crowded in unsanitary barracks that the missionaries planned for them. The *Pauserna* were content with sheds that were open on all sides and had wooden floors.

The main pieces of furniture were platforms, on which food was stored, cotton hammocks, benches for men, and mats for women.

DRESS AND ADORNMENTS

Clothing.—*Guarayú* men originally went completely naked, except for cotton garters and anklets, but women, even in the sixteenth century, wore some kind of body covering, either of "leaves or of bark cloth." Later, the *Guarayú* borrowed long, sleeveless men's bark-cloth tunics from their neighbors, although even 100 years ago these were still uncommon. At that time women wore a short cotton loincloth. Missionary prudishness led to the general adoption of the bark-cloth tunic, which remained the *Guarayú* national dress until they received European garments. Even after it had become the rule to wear clothes, the *Guarayú* would enter their ceremonial houses only in their aboriginal nudity.

Feather work.—Feather ornaments were abandoned at an early date. Natively, the *Guarayú* had worn feather diadems with three large parrot tail feathers rising over the nape. The *Pauserna* retain frontlets consisting of feathers attached to a twined cotton band. Funeral costumes show that the *Guarayú*, like their ancestors, glued feathers directly on their bodies.

Miscellaneous.—A *Guarayú* in full array formerly wore a labret through his lower lip, a stick of wood with tufts of feathers at both ends through the nose septum, and two hummingbird tail feathers through his ear lobes. Ear and nose ornaments were connected by a cotton thread. The *Pauserna* had necklaces of split but not pierced wild-pig tusks and of *Astrocaryum* nuts. The *Guarayú* women

wrapped their wrists with long strings of aguai fruit shells which jingled when they moved. The *Pauserna* and *Guarayú* used to paint themselves with genipa and rucu; favorite patterns seem to have been perpendicular and oblique lines on the face, and a band across the mouth. Women covered their bodies with parallel strokes and series of triangles divided by perpendicular lines. Among the sixteenth century *Guarayú*, women tattooed themselves like the *Tupinamba* by incising their faces, arms, and legs, and by pouring genipa juice or charcoal over the scratches. Men scarified themselves and rubbed ashes of swift birds or mammals in their wounds for purposes of magic.

The old *Guaraní* tonsure was still fashionable at the end of the sixteenth century, but was abandoned later. In D'Orbigny's time both women and men let their hair grow long and hang loose on the back. They trimmed it only across the forehead. Palm oil made the hair shine. The *Guarayú* acquired a certain fame as one of the few full-bearded Indian tribes in South America. They seem fully to have deserved the epithet of "patriarchs" given to them by D'Orbigny.

TRANSPORTATION

Boats were simple dugouts which held only two people. *Guarayú* and *Pauserna* carried heavy loads in elongated shoulder baskets or knapsacks which were entirely open on top and on the outer side, with only the lateral sides to support the burden.

Baby slings were, like hammocks, made with an open, twined weave.

MANUFACTURES

Bark cloth.—The *Guarayú* formerly made bark cloth of a *Ficus* (*Bibosi*) beaten with grooved wooden mallets.

Basketry.—*Guarayú* baskets, pictured in the literature, have twilled, wicker, and hexagonal, or lattice type, weaves. In the hexagonal weave, the weft passes alternately over a strand of one and under a strand of another of two series of warp elements crossed diagonally. Rectangular baskets made of *Gynerium* stalks, bound together by cotton twine, were used to store personal possessions.

Weaving.—*Guarayú* spindles were of the *Bororó* type, that is, they were rolled along the thigh. The *Pauserna* had ordinary Andean type drop spindles. This difference between two tribes otherwise so closely related results from the *Guarayú* having recently borrowed the rolled spindle from their *Arawak* neighbors, of whom it was typical. *Guarayú* women placed the distal end of the spindle in a hole on the top of a lump of clay, to raise it to the level of their

thighs. Both tribes wove on the vertical, or *Arawak* type loom, but twined hammocks and baby slings. The *Pauserna* plaited cotton bands on a small loom, the frame of which was a forked branch with two transverse sticks attached to it (see p. 91).

Pottery.—The *Pauserna* tempered potter's clay with potsherds which they gathered on old archeological sites and pulverized. The finished vessel was dried in the sun and heated over a fire before it was exposed to a high temperature.

Gourds.—The *Guarayú* and *Pauserna* were among the few tribes of Eastern Bolivia who used ordinary gourds (*Lagenaria vulgaris*) more often than calabashes (*Crescentia cujete*) for bowls, drinking cups, and boxes. The *Guarayú* frequently decorated these articles with incised designs. The *Pauserna* scratched designs on portions of the surface of their gourds and smeared the whole with rucu. The epidermis was then removed so that the simple, unpainted motives stood out as negative designs. The *Pauserna* blackened the inside of the calabash with a dye extracted from the bark of the irapita tree and mixed with charcoal and water.

Fire making.—The *Guarayú* used to produce fire with their arrows, the shaft serving as a drill and the bamboo head as the hearth. But the *Guarayú* hearth, instead of having pits and grooves like the *Pauserna* hearth, was constructed so that the spark fell through the hole onto tinder placed underneath it. The perforated hearth has been reported also among the *Yurakare*, *Chakobo*, *Atsahuaka*, and *Parintintin*, all of whom use bamboo arrowheads as hearths and arrow shafts as drills.

While traveling, the *Guarayú* kept a fire alight in the smoldering spadix of the motacu palm. *Pauserna* torches were thick cotton threads smeared with wax and twisted together. Both tribes used basketry fans to activate the fire.

Weapons.—The main features of the *Guarayú* palm-wood bows were a semicircular cross section, a central basketry sheath, and a cotton bow string. Arrows bore a striking resemblance to those of the *Tupí* of Paraguay, especially in their feathering—the Eastern Brazilian or tangential type—the feather barbs being cut along one side and the quill attached at each end. Fishing arrows lacked feathers. Arrow shafts were of *Gynerium* stem, with a small wooden plug inserted in the butt to strengthen it. The *Pauserna* apparently lacked lanceolate bamboo heads. Wooden points were pencil shape, with both sides serrated and a bone splinter often attached near the tip to form a barb. Fishing arrows as a rule had two barbed prongs.

Ancient *Guarayú* had long double-edged wooden clubs that widened from the handle to the distal end.

POLITICAL AND SOCIAL ORGANIZATION

The literature affords no information whatever about *Guarayú* and *Pauserna* political and social organization. Social features of crop cultivation have been described under "farming."

LIFE CYCLE

Birth and childhood.—A pregnant woman and her husband refrained from eating various animals having traits that could be transmitted to their offspring. Women were delivered in a squatting position. Relatives, usually the grandmother, tied cotton threads around the newborn infant's wrists, elbows, knees, and ankles, and, if it were a girl, around her waist. The father slashed his own body with an aguti tooth, painted his hands, feet, and joints with genipa, and lay idle in his hammock for 3 days eating only small fish. It was believed that if the father exerted himself violently it would harm the child's soul, which followed him everywhere. A boy was named by his grandfather or another relative, who handed him a miniature bow.

At the age of puberty, girls were secluded for a month in a corner of the house and were restricted to a diet of yuca mush and bananas. Afterward their breasts and arms were incised with an aguti tooth and the wounds rubbed with charcoal, which remained as permanent tattoo marks.

During childhood boys were often scarified or bled with a miniature bow and arrows (the venisection bow) in order to make them strong.

Marriage.—The preferred marriage was between a girl and her maternal uncle (tutir). This preference was so strictly observed that a man might marry his several nieces and thus leave no available women for younger men. The consent of the girl's father, or, more especially, of her brother, was absolutely necessary for marriage. To secure this consent, the suitor had to work for, or make some substantial present to these relatives. After the suitor's request was granted, he walked in front of the girl's hut for a few days, naked and smeared with rucu like an ancient *Guarayú*. The girl's relatives celebrated the wedding with a drinking bout. Shortly after marriage, the young couple built themselves a house. Polygamy was customary, but complete harmony is said to have reigned in the household. Widows married their brothers-in-law (levirate).

In a sixteenth century account (see Métraux, 1928, p. 927) it is said that girls were betrothed to a relative of the second degree "or some other close relative," and that a bow, arrows, and digging sticks were given by the girl's parents to the fiancé, who henceforth had to stay with his future relatives-in-law and work for them. If the initia-

tive were taken by the man, he brought a bundle of wood and offered his services.

Death.—When a man was dying, it was considered proper that he should maintain all possible silence. The deceased was washed, covered with all the ornaments used in religious festivities, and buried in a pit dug in his hut. The *Pauserna* placed their graves outside their houses, but covered them with a miniature hut.

In the sixteenth century, when a person had breathed his last, the relatives flung themselves on the ground, beat their heads against the walls of the houses or threw themselves from some height “as if they were about to kill themselves.” The same dramatic manifestations of grief were observed by their ancestors in Paraguay.

The corpse was buried with its face turned toward the west and was placed between several layers of mats to prevent direct contact with the soil. These mats had taken the place of funeral urns which were formerly used. A stamping tube, a bundle of straw, sugarcane, bows and arrows, and a gourd full of beer were deposited in the sepulcher. After the grave had been filled with earth, everybody present jumped on it. The mourners bathed in a decoction of ibiraa bark, painted themselves black, slashed their bodies with an aguti incisor, and fasted. In the sixteenth century, *Guarayú* mourners, like the *Tupinamba*, tattooed themselves by incision. These rites were to protect them against the disease of which the deceased had died.

The sixteenth-century *Guarayú* celebrated the first anniversary of a death by the same rites as those observed at the time of death. Afterward they were permitted to wear again their ornaments discarded during the interval.

Journey to the land of Grandfather.—Soon after burial the liberated soul of the deceased started on a long and dangerous journey to the land of the mythical ancestor, Tamoi, or Grandfather, who lived somewhere in the west. It had to choose first between two paths. One was wide and easy. The other was narrow and obstructed with weeds and tobacco plants, but it followed this if it was wise and courageous. Soon the soul came to a large river, which it had to cross on the back of a ferocious alligator. The alligator ferried the soul over only if it knew how to accompany the alligator’s chant by rhythmically stamping its bamboo tube. It then came to another river which it could pass only by jumping on a tree trunk that floated at great speed to and fro between the two banks. If the soul fell, palometa fish would tear it to pieces. Shortly after this it neared the abode of Izoï-tamoi, Grandfather of Worms, who looked enormous from a distance but became smaller and smaller as he was approached. If the deceased had been a bad man, however, the process was reversed; the Grandfather of Worms grew to gigantic

proportions and cleaved the sinner in two. Next, the soul had to travel through a dark region where it lit its way by burning a bunch of straw which relatives had put in the grave. However, it had to carry its torch behind its back lest the light be put out by huge bats. When the soul arrived near a beautiful ceiba tree full of humming birds, it washed itself in a brook and shot a few of these birds, without hurting them, and plucked their feathers for Tamoi's headdress. Then the soul kicked the ceiba trunk to notify its relatives that it had reached that place. The next obstacle was the Itacaru, two rocks which clashed and recoiled on its path. The stones allowed the soul a short interval to pass through if it knew how to address them.

At a crossroad the soul was examined by a gallinazo bird, who made sure that, like all good *Guarayú*, it had perforated lips and ears. If it did not possess these mutilations, it was misled by the bird. Two further ordeals awaited the journeying soul; it had to endure being tickled by a monkey without laughing, and to walk past a magic tree without listening to the voices which issued from it and without even looking at it. The tree was endowed with complete knowledge of the soul's past life. To resist these temptations, the soul pounded its stamping tube on the ground. A further danger took the form of colored grasses which blinded the soul and caused it to lose its way. Finally the soul arrived at a large avenue lined with blossoming trees full of harmonious birds and knew then that it had reached the land of the Grandfather. It announced its arrival by stamping the ground with its bamboo tube. The Grandfather welcomed the soul with friendly words and washed it with a magic water which restored its youth and good looks. From then on, the soul lived happily, drinking chicha and carrying on the routine activities of its former life.

CANNIBALISM

The *Guarayú* and *Pauserna*, like their ancestors in Paraguay, once ceremonially sacrificed and ate prisoners. Victims were allowed to pelt their captors before being put to death with clubs. In true *Guaraní* fashion, children were given prisoners to kill and those who shot them took a new name. Cannibalism was abandoned before the nineteenth century. A memory of it was still alive, however, in a few traditional chants, e. g., "Like a small fluttering swallow, I am going to feast on you, *Chiquito* Indian, to feast on you, *Chiquito* Indian."

ESTHETIC AND RECREATIONAL ACTIVITIES

Games.—In the sixteenth century the ancestors of the modern *Guarayú*, the *Itatin*, played with rubber balls. They struck the ball

back and forth with great skill with their heads and elbows. The winner was awarded a substantial prize.

Dances.—When dancing in the sacred hut, the *Guarayú* first would form a circle, then walk to and fro in a line, with lowered eyes and grave mien. They accentuated the rhythm of their chants by thumping their bamboo tubes.

Musical instruments.—Stamping tubes—a section of bamboo 2 feet (0.6 m.) long and 3 inches (7.5 cm.) wide—played a highly significant role in *Guarayú* and *Pauserna* religious life and are frequently mentioned in our sources. Gourd rattles were next in importance. Other *Pauserna* idiophones were bracelets and belts with fruit-shell jingles. The *Guarayú* were expert violin makers. There is rarely a reference to wind instruments among these tribes.

Narcotics.—The *Pauserna* smoked tobacco wrapped in maize leaves. The *Guarayú* had pipes, the shape of which, however, is not described. The *Guarayú* brewed beer of maize, or of yuca fermented with chewed maize. Like the *Guaraní*, they drank at every opportunity. An able organizer of drinking bouts acquired much prestige.

RELIGION

The *Guarayú* formerly had a cult to the Tamoi, or Grandfather, their Culture hero, who had lived among them and had taught them agriculture, and then had departed to the other world from the top of a tuienda tree. The *Guarayú* planted tuienda trees near their huts in his memory. Each village had a special building, sometimes decorated with paintings representing birds and animals, dedicated to the Grandfather cult. It was furnished with benches and large jars, and served as a storehouse for all paraphernalia, including stamping tubes, gourd rattles, feather ornaments, pipes, and even clubs.

Public and private ceremonies, all apparently following the same pattern, took place in the special building. A few days before a ceremony, the organizers hunted while their wives and daughters brewed yuca beer. On the appointed day, everyone bathed, anointed his hair with oil, painted himself with rucu and genipa, and donned his best feather ornaments. Garments, being of foreign origin, were not allowed; men entered the house naked and women in a short loincloth. The shaking of a gourd rattle started the ceremony. The master of ceremonies blew tobacco smoke first on the stamping tubes, then on each participant to consecrate them. He drank beer from a stamping tube, which he then sent around for everybody to taste. At a second signal from the gourd rattle, participants pounded their bamboo tubes on the ground, beating the rhythm for a song led by the choirmaster. Deep male voices, shrill female voices, and the

thud of the stamping tubes produced a lugubrious but not unpleasant melody. Between stanzas dancers drank beer. The affair ended in an orgy, during which men brawled and women were beaten.

During ceremonies, no stranger might enter the sacred house. Any animal entering the door was immediately killed.

The *Guarayú* believed that their chants and especially the thud of the stamping tube pleased the Grandfather, who granted their requests. Usually they asked for rain for their fields. Sometimes they even hoped that the Grandfather would raise the whole house with its inmates to heaven, where they would live in eternal happiness. The manifest desire to leave this world to join the Grandfather betrays, as among the *Apapocuva-Guaraní*, a strong complex of messianic ideas.

Only a few details of other aspects of *Guarayú* religion have been recorded. Novice hunters incised their arms and did not eat the first game they killed, in order to become good hunters. After shooting a jaguar, a man ran away, abandoning even his weapons so as not to be overtaken by the animal's soul. If a man had wounded a jaguar, his soul turned into a jaguar; such a person was served in isolation at drinking bouts. The *Guarayú* feared the cries of night birds. They believed that certain sunset colors on clouds presaged death, which could be averted by throwing ashes into the air. Shamanism, only vaguely alluded to in our sources, seems to have involved the procedure most common in tropical South America—blowing on and sucking the patient.

MYTHOLOGY

Known *Guarayú* mythology shows a strange mixture of confused elements. These contradictions and obscurities may perhaps be blamed on our only source, a text by Father Cors (see Cardús, 1886, pp. 76-78).

In the beginning there was only water. A worm, Mbir, crawled on the bullrushes. After assuming human shape, he created the world. The name of this creator, Miracucha, evidently comes from that of the Peruvian God, Viracocha. Its unexpected occurrence in the *Guarayú* mythology strongly suggests an interpolation. Next to Miracucha appear two other divine figures: Zaguaguayu, the god of brilliant headdresses, who still lives in the east (the Sun?), and his brother Abaangui. Abaangui is a creator or transformer, who changed his shape so often while endeavoring to take human form that he acquired an atrocious nose that he had to knock off.

Our text also mentions Candir who, in the early historical accounts of the conquest of the upper Paraguay River region, is portrayed by the *Guaraní* Indians as a more or less mythical king in whom it

is easy to recognize the Inca of Peru. However, many traits of Candir's personality suggest that to the *Guaraní* he was a culture hero who later became identified with the ruler of the *Inca* empire. The earliest descriptions of the *Guarayú* (see Métraux, 1928, p. 924) refer to Candir as a god for whom the Indians performed secret rites. Those who fasted and lived in seclusion in honor of Candir were seized by fits of frenzy which led them to run across the bush indifferent to physical pain.

Our source then refers to the Tamoi, or Grandfather, who at first lived on wild fruits and then discovered agriculture. He taught his wife, Guiyarei, to brew beer, which he was the first to enjoy. In fact, he became so inebriated that he thrashed his wife. Tamoi changed his wife and baby into rocks and departed to his celestial village located somewhere in the West.

Tamoi had two sons (the Twin motif) who shot arrows upward, one into the butt of another, thus making an arrow chain which they climbed until they reached the sky. There they became Sun and Moon.

The spots on the moon were caused by a girl who had sexual intercourse with the moon, but, not knowing her lover's identity, smeared his face with genipa.

Years after they had left Paraguay, the *Guarayú* remembered Pai Zume, the culture hero of the ancient *Tupí-Guaraní*. They still have a confused tradition about a flood from which some people in a pot were saved. In a sixteenth-century source there is a reference to two mythical characters, Pai Tacur and Pai Amandre (the mythical twins), who both disappeared after a cataclysm.

Fire was stolen from the vultures, who had owned it, by a man who attracted the birds by pretending to be dead. He snatched a firebrand from them and threw it to a frog, who swallowed it but was obliged to spit it out. On their second attempt, these two accomplices managed to retain the fire.

The *Guarayú* believed that eclipses were caused by a celestial Jaguar who attacked the Moon. To prevent the moon's disappearance, they yelled and shot burning arrows into the air.

LITERATURE

According to D'Orbigny (1839, vol. 2, p. 330), the words of chants were poetical images. The *Guarayú* asked that nature don her most beautiful attire, that flowers blossom, that birds appear in radiant plumage and sing joyfully, that trees cover themselves with green foliage, and that everything help attract the attention of Tamoi, who was never supplicated in vain.

LORE AND LEARNING

The *Guarayú* named many constellations. Orion was the urubu bird, who sat near a pile of serpent bones (The Dagger). The Southern Cross was seen as an ostrich and the big stars in Centaurus as a deer. The Great Bear was a path. A swarm of stars in the south was called "Nest of the eel." The disappearance of the Pleiades marked the beginning of the dry season. When the Pleiades were seen again with a ring, it was a sign of good luck.

ETIQUETTE

In the sixteenth century, visitors were received with cries and lamentations similar to the wailing for a death, but this custom seems to have been forgotten in more recent times.

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SIRIONO

TRIBAL DIVISIONS AND HISTORY

The *Siriono* (*Chorí*), the least known of all eastern Bolivian tribes, were not observed by a trained anthropologist until Allan Holmberg visited them in 1940-1941. Judging by their number, these elusive Indians occupied an enormous area. Their easternmost groups wandered along the middle and lower course of the Ichilo, Chaparé, and Chimoré Rivers. They extended west to the Rio Grande (Guapay River) and were scattered from the Rio Grande to the San Miguel River in the vicinity of the Franciscan missions. They were found near Torno Largo and Bibosi on the Mamoré River. *Siriono* have also been seen near Carmen and Baurés on the Rio Blanco; some of their bands lived near the Machupo River and along the course of the lower Guaporé River.

Wegner (1934, p. 5) states that the Rio Grande and Mamoré River *Siriono* called themselves *Ñeozé-née*, and names other groups in the same region the *Tirinié* and *Jandé*. He (1929-1932, pp. 321-329)

makes the surprising statement that among the *Siriono*, near Cuatro Ojos, between the Piray River and the Rio Grande, there lived an extremely primitive race, the *Quruñguá*, who differed from the *Siriono* in physical appearance, but probably not in culture, and who were so low in the evolutionary scale or so degenerate that they even lacked an articulate language!

The *Siriono* are mentioned for the first time in *Lettres édifiantes* . . . (1781, p. 105). In 1693, Father Barrace spent some days among them. A few years before the expulsion of the Jesuits, one of them, Father Jurado, found near the Mission of San Joseph de Buenavista a party of *Siriono* with whom he conversed in *Guaraní*. A few *Siriono* stayed at the Mission of Buenavista, but in 1765 were transferred to the Mission of Santa Rosa together with *Guarayú* Indians. During the eighteenth century and the first half of the nineteenth century, the *Siriono* had friendly contacts with the *Guarayú*, but peace was broken at a feast and the two tribes have waged bitter war against each other ever since. The *Siriono* were greatly feared by the Whites and Indians of Bolivia, but most of their raids were to avenge the slaughter of which they were the victims. After 1925, apparently decimated by epidemics, many *Siriono* came in touch with the Franciscan missionaries and settled at the Mission station of Santa Maria. In the last 10 years they have been pushed northward by the *Yanaigua* (*Tapiete*) and perhaps also by the *Tsirakua*, who had migrated north as a consequence of the Chaco war. Three hundred *Siriono* were recently settled near Trinidad under the supervision of a government school.

Language.—That the *Siriono* spoke a *Guaraní* dialect has been known to anthropologists since D'Orbigny's time. It has been suggested that *Guaraní* was recently acquired and that these exceedingly primitive people might have retained an earlier language. However, this hypothesis has not been confirmed by anyone who, like the Franciscan missionaries, has lived for a long time in close contact with these Indians. Their *Guaraní* dialect seems to be fairly pure though its relations to *Guarayú* have not been yet established.

SUBSISTENCE

The *Siriono* have been described as forest nomads, living mainly by hunting and fishing and by plundering the fields of their White and Indian neighbors. Actually, they were not entirely nomadic, but practiced some agriculture. They grew maize, sweet manioc, sweetpotatoes, cotton, tobacco, and papayas in fields tilled by women with simple digging sticks. Although they relied principally upon hunting, they also took fish, which they shot with bows and arrows. The fruits of the motacu and chonta palms and of coquino and paquio

(*Hymenaea courbaril*) trees were important in their diet. When climbing trees to obtain fruits, a stick was tied against the tree trunks with creepers. The climber then hoisted himself up, holding the stick with his hands and resting his feet against the creepers. A high tree was reached by climbing one near it and bridging the gap with branches. The *Siriono* climbed a small tree with the arms wrapped around the trunk and the feet braced against it.

Turtles and armadillos were roasted in their shells; monkeys were singed, without being cleaned, and cooked under hot ashes. Maize was eaten on the cob or was ground with the handle of a digging stick in a cylindrical wooden mortar. Maize flour was mixed with water, kneaded into balls, wrapped in leaves, and steamed in a pot covered with leaves.

CLOTHING

Men and women went naked. The only *Siriono* ornaments were strings around the wrists and legs; necklaces strung with fruit shells, animal teeth, or turtle bones; and small bundles of feathers hung over each ear. The *Siriono* glued feathers to their hair, like many *Tupí* Indians, and smeared rucu on their faces. Both sexes punctured their forearms with a stingray spine to produce scars that had magic value. They cut their hair short with bamboo splinters or snail shells and shaved or pulled out their body hair.

HOUSES

Houses were extremely primitive: A simple shelter or screen of motacu leaves was leaned against a transverse stick attached to two trees. When it rained, additional patuju or banana leaves or mats were added to the flimsy structure. Each family had its own fire. People slept in hammocks, which were made with fiber warp elements twined together at wide intervals by cotton threads. When traveling, the *Siriono* used small hammocks that served only for sitting.

TRANSPORTATION

Lacking boats, the *Siriono* crossed rivers on hanging bridges built of creepers. To build these bridges, they first stuck poles in the earth on one shore and propped them with sticks. They then attached creepers to the poles and ran them to similar poles or to semisubmerged logs on the opposite shore. Children were carried in slings made of twined fibers.

MANUFACTURES

Spinning and weaving.—*Siriono* women made thin even cotton thread with spindles provided with pottery whorls. The spindles,

4 feet (1.2 m.) long with whorls 4 inches (10 cm.) in diameter, were quite exceptional and not, as Wegner stated, typical of the tribe. The spindle was set in motion with the fingers and then dropped.

The *Siriono* did not use a true weave, but twined the fabrics of their hammocks and baby slings.

Basketry.—*Siriono* basketry lacked the elaborate techniques used by other tropical Indians and was woven in the same way as temporary baskets made by hunters to carry game home. Woven articles of palm leaves included mats and carrying baskets, the form of the latter depending on whether they were to be carried over the shoulders, on the back, or in the hand. Fire fans were woven of a single motacu leaf.

Pottery.—The *Siriono* made crude round or oval pots of clay tempered with crushed motacu kernels, which burned out when the vessels were fired leaving the clay porous. Calabashes (*Crescentia cujete*) were used for drinking cups.

Fire-making.—The *Siriono* produced fire by drilling, but usually avoided having to make it anew by carrying a smouldering motacu palm spadix.

Weapons.—*Siriono* bows were round, tapering, and among the largest known, averaging from 6 to 9 feet (1.8 to 2.7 m.) in length. Arrows were 9 to 12 feet (2.7 to 3.6 m.) long and were tipped with a lanceolate blade or with a sharp rod to which were attached barbs made of splinters. Two halved feathers were laid lengthwise in a slit cut along the arrowshaft and held in place by a cotton thread wrapping which was smeared with wax (Peruvian cemented feathering). Snail shells and piranha teeth served as tools for making weapons. An aguti incisor hafted to a long bone was used for drilling, chiseling, and cutting.

LIFE CYCLE

Little is known of *Siriono* observances of the phases of an individual's development. According to Wegner (1934, p. 7), a kind of couvade was observed prior to the birth of a child. An infant's navel cord was cut with a bamboo knife; the mother dried it and attached it to the baby's neck. The father wore feathers glued to his hair, and both parents painted themselves with rucu.

The dead were wrapped in a mat and placed on a platform inside a hut. After several months, the skeletal bones were buried but the skull was kept by the family. Wegner (1934, p. 23), saw a woman carrying the skull of a 3-year-old child (Wegner, 1934 *a*; 1934 *b*, fig. 13, No. 2).

RELIGION

The *Siriono* feared bad spirits, which, like the *Tupí-Guaraní*, they called "ana." According to Wegner (1934, p. 21), they believed that

a celestial Grandfather lived in Mbaerunya, where he drank maize beer and kept many wives. After death, good hunters joined him, but unskillful hunters wandered behind herds of wild pigs. This statement is emphatically denied by Father Schermair (1934, p. 520).

The *Siriono* had magic designed to insure a large supply of game. For example, they lined up on a stick the skulls of animals and kept in a bundle the feathers of birds they had killed.

Headaches and stomach ailments were treated by kneading the abdomen with the hands. They scarified themselves with agouti teeth.

ESTHETIC AND RECREATIONAL ACTIVITIES

Smoking and drinking.—According to Wegner (1934 a, p. 178) the *Siriono* were fond of mead and of maize or manioc beer, which they brewed in "large pots" without the addition of saliva. The speechless *Quruñgu'á* are said to have prepared mead in holes dug in the ground lined with leaves. It must be remembered, however, that Cardús (1886, p. 281) states the *Siriono* made mead in small wooden "mortars."

The *Siriono* smoked tobacco in conical clay pipes which obliged them to throw back their heads when inhaling lest they spill the tobacco.

Dancing.—Dancing took place when the moon was full. The *Quruñgu'á* danced with their weapons. Among the other *Siriono*, men, their arms linked, stamped the ground to the accompaniment of shrill shouts. Only among the *Tirinié* did women also dance, waddling, arm in arm, around in a circle.

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Cardús (1886, pp. 278-284), Heitzinger (1928), Herzog (1910, pp. 199-200), Lettres édifiantes et curieuses (1781, vol. 8, p. 105), Nordenskiöld (1911, 1922, pp. 172-181), D'Orbigny (1839, vol. 2, pp. 341-344), Radwan (1929, pp. 291-296), Schermair (1934), Sneath (1936, pp. 291-292), Wegner (1929-1932, pp. 329-340; 1934, pp. 1-34; 1934 a, pp. 161-184).

THE CHIQUITO AND OTHER TRIBES OF THE PROVINCE OF CHIQUITOS

THE LINGUISTIC FAMILIES OF THE PROVINCE OF CHIQUITOS

One of the most hopeless tasks of South American ethnology is that of obtaining a clear picture of the linguistic affiliations or even of the exact locations of the Indian tribes of the vast region known as the Province of Chiquitos, which is bordered on the south by the Chaco deserts, on the east by the Paraguay River and by the marshes of its upper course, on the west by the Rio Grande (Guapay River), and on the north by a line more or less following 15° S. lat.

The chronicles of the Conquista, the official documents and the reports of local authorities, and later the letters and books of the

Jesuits teem with names of tribes and subtribes, but seldom give us the location of these groups and even more rarely mention their linguistic affinities. From the beginning of the conquest, the Indians of the area just defined have been called *Chiquito*—"the small ones"—irrespective of their linguistic stock or culture. There is one language, still isolated, called *Chiquitoan*, which is spoken today in that region, but because the missionaries constantly stressed their success in imposing it on tribes belonging to other stocks, it has become impossible to establish the former extent of the *Chiquitoan* language. Hervas (1800, p. 160) says that the following tribes of the Chiquitos region spoke languages different from *Chiquitoan*: *Bataje*, *Corabé*, *Cuberé*, *Curucané*, *Curomina*, *Ecoboré*, *Otuque*, *Paiconé*, *Parabá*, *Pauná*, *Puizoca*, *Quiteme*, *Tapi*, *Tapuri*, *Jarabe*, and *Bauré*. We know, thanks to vocabularies collected by Alcide d'Orbigny, that the *Saraveka*, *Paunaka* (*Pauna*), and *Paikoneka* (*Paiconé*) were *Arawak* Indians, perhaps subtribes of the *Chané*, who are repeatedly mentioned in that area; and that the *Otukè*, *Kovareka*, and *Kuruminaka* formed an isolated linguistic group, perhaps related to *Bororó*. In 1831, when Alcide d'Orbigny was in the Province of Chiquitos, the Indians remembered that in past days the *Kuravé* (*Corabé*), the *Tapii*, the *Kurukaneka*¹⁸ (*Curucané*), and the *Koraveka* had had languages of their own. Créqui-Montfort and Rivet (1913 e) are inclined to include these languages in the *Otukèan* stock, on the basis of their geographical distribution. The *Kitemoka* (*Quitemo*) and *Napeka* of the Mission of Concepción de Chiquitos (near the headwaters of the Rio Blanco) were *Chapakuran*; the *Bauré* were *Arawakan*. The *Gorgotoqui*, who were once numerous but who disappeared in less than half a century, must perhaps be reckoned as a separate linguistic stock. The other tribes listed by Hervas are merely meaningless names to us.

In the south of the Province of Chiquitos the missionaries had to deal with the *Zamuko* and the *Ugareño*, who were closely related to two *Chaco* tribes, the *Chamakoko* and the *Tumerehã*.

THE CHIQUITOAN LINGUISTIC STOCK AND ITS DIALECTS

Hervas (1800, vol. 1, pp. 158-159) classifies the *Chiquitoan*-speaking tribes into four subgroups, according to their respective dialects.

1. Tribes speaking the *Tao* dialect: *Tao*, *Boro*, *Tabiica*, *Tañopica*, *Xuberesa*, *Zamanuca*, *Bazoroca*, *Puntagica*, *Quibiquica*, *Pequica*, *Booca*, *Tubacica*, *Arupareca*, and *Piococa*. The *Tao* dialect was spoken in the Missions of Santa Ana, San Rafael, San Miguel, San Ignacio, San Juan, Santiago, Santo Corazón, and Concepción.

¹⁸ The ending *-ka* (*ca*) is the plural suffix.

2. Tribes speaking the *Piñoco* dialect: *Piococa* (in San Xavier and not to be confused with the *Piococa* of San Ignacio and Santa Ana who spoke the *Tao* dialect), *Quimeca*, *Guapaca*, *Quitagica*, *Pogisoca*, *Motaquica*, *Zemuquica*, and *Taumoca*. The *Piñoco* dialect was spoken in San Xavier, San José de Chiquitos, and in San José de Buenavista (Desposorios) in Mojos.

3. Tribes speaking the *Manasi* dialect: *Manasi* (*Manacica*), *Sibaca*, *Cucica*, *Quimomeca*, *Tapacuraca* (?), *Yuracareca*, and *Yirituca*. The *Manasi* dialect, spoken in the Mission of Concepción, was soon discarded in favor of the *Tao* dialect.

4. The *Peñoqui* dialect was spoken by a single tribe, which was settled in the Mission of San José, where it soon adopted the *Piñoco* dialect. The *Peñoqui* dialect was the most differentiated of the four and Father Felipe Suarez, the author of a *Chiquitoan* grammar, was obliged to write a special dictionary for this language and to translate the catechism into it.

According to Alcide d'Orbigny (1839, vol. 2, p. 155) the *Kusikia* (*Cuciquia*), who were split into *Kusikia*, *Yurukaritia*, and *Tapakuraka*, used a dialect full of foreign words, mainly *Paikoneka*. The *Kusikia* came from the northernmost part of the region of Chiquitos, whereas the *Tabica*, *Boxo*, *Penoto*, and *Xamaro* occupied the south of the same Province.

REFERENCES

Adam and Henry (1880), Chamberlain (1913, pp. 487-488), Fernández (1895, vol. 1 and 2, passim), Hervas (1800, pp. 157-160), Lafone Quevedo (1910-1911), D'Orbigny (1839, vol. 2, pp. 153-164).

THE CONQUEST OF CHIQUITOS

The first knowledge of Indians living in the country later to be known as the Province of Chiquitos was brought back by Domingo Martinez de Irala and Nuflo de Chaves, who ascended the Paraguay River in 1542, as far as 17° S. lat., and discovered the *Surukusi*, the *Orejones* ("Big Ears"), the *Arencoci*, the *Xaray*, and several other tribes. The party journeyed for 4 days west of the Paraguay River to reconnoiter and returned after obtaining information about the land to the west from a party of *Guaraní* Indians who probably were migrating toward the Andes.

The following year Alvar Nuñez Cabeza de Vaca organized a large expedition to conquer the fabulous lands west and northwest of the Upper Paraguay River. This El Dorado, inhabited by *Amazones* and teeming with gold, was actually the *Inca* Empire as visualized in the imagination of the Indians and in the dreams of the Spaniards who interpreted their descriptions. The Spaniards established their headquarters at Port of Los Reyes (17°57' S. lat.) and from there

Alvar Nuñez Cabeza de Vaca led a large party of Spaniards and *Guaraní* Indians toward the west. After a few days, having exhausted their provisions, the Spaniards decided to return, though *Guaraní* Indians living in these deserts told them about the hill of Tapua-guazu and the numerous villages around it. The Governor sent Francisco de Rivera with six Spaniards to explore the land ahead until he discovered Indians who had metal. After 21 days of difficult travel, Rivera arrived at a village of Indians who "wore large silver discs in their lower lips and gold earrings." They had a great many metal objects: plates, hatchets, and bracelets of silver, which they stored in large vases. Like modern *Chiriguano*, they kept their provisions of maize in pots. Their large houses were made of wood and straw. They treated their Spanish guests to maize beer. They were armed with bows and arrows and when on the warpath painted themselves and donned feather ornaments. These Indians were not *Guaraní*, for the interpreters did not understand their language. They were called *Tarapecosi*, a name frequently given with different spelling, as a synonym for *Chiquito*. Some of these *Tarapecosi* lived at that time near the Port of Los Reyes, where they had come with the *Chané*. Our assumption that these *Tarapecosi* were *Chiquito* Indians is strengthened by another detail. The Indian guide who took the Spaniards to their country told them that he used to go there to obtain arrows and the *Tarapecosi* of Port Reyes immediately recognized those which Rivera brought back with him. If the *Guaraní* took the trouble to travel for weeks to get arrows, these must have had some advantage over their own. We know that the *Chiquito* arrows were poisoned and, therefore, in great demand among the *Guaraní*. The *Guaraní* of Paraguay even dared to rebel against the Spaniards a few years later when they had acquired poisoned arrows from the *Chiquito*.

These *Tarapecosi* or *Chiquito* were enemies of the *Guaraní*. They received the metal objects which the Spaniards saw among them from the *Payzuno*, who in turn traded them from the *Chané*, *Chimeno*, *Caracara*, and *Candire*. The *Chimeno* may be the *Chiman* (?), but both *Caracara* and *Candire* were names used by the Indians of Paraguay to designate the *Inca*, or mountain people.

Another reconnoitering party, under Hernando de Ribera, was sent by Alvar Nuñez Cabeza de Vaca upstream to the *Xaray*. Hernando de Ribera, in whose company were Nuflo de Chaves and Schmidl, traveled westward for many days until prevented by a flood from continuing his exploration. Among the *Xaray*, Hernando de Ribera received a detailed description of the *Inca* Empire colored with mythological elements. The *Urtu* and *Aburuñe* Indians, whom he discovered in his journey, had metal plates.

The names of a great many *Chiquito* tribes appear in the brief accounts of the expedition of Domingo Martínez de Irala, who in 1548 left the region of Cerro San Fernando (21°30' S. lat.) and marched toward the west, crossing the northern plains of the Chaco and later the southern part of the Province of Chiquitos. He ended his expedition on the Guapay River among the *Tamacoci* Indians. The conquest of Chiquitos was achieved by Nuflo de Chaves from 1557-1560. The Spanish conquistador had been sent to Xarayes to found a town, but in the hope of reaching the land of Mojos, or at least of creating a base from which he could attempt the journey to the El Dorado, he entered the regions west of Xarayes with a party of Spaniards and Indians. Following a west-northwest course, he finally arrived at the land of the *Tamacoci* on the Rio Grande (Guapay River), where he had been previously with the company of Irala. In 1560, after he had been made lieutenant governor of the Province of Mojos, he subjected the *Tamacoci* and *Gorgotoqui* to Spanish rule and founded in the heart of Chiquitos, near the range of San José, the first city of Santa Cruz de la Sierra. The *Chiquito* Indians in whose territory the new city was built were the *Quibaracoa*, *Peñoqui*, *Quicme*, *Parani*, and *Subereca* (probably *Saraveka*), and perhaps a few *Chané*. The *Paikono* lived 20 leagues from the city. In 1595 the first city of Santa Cruz was transferred to the plains of Grigotá, not far from the present city of that name. The colonists were followed only by a few of their *Chiquito* slaves. The remaining *Chiquito*, who for more than 40 years had been under Spanish influence, reverted rapidly to their primitive ways; however, as metal had become indispensable to them, they often raided the Spanish settlements to obtain tools or pieces of iron. Defeated by a punitive expedition sent against them from Santa Cruz, the *Zumbiqui*, *Cozo*, *Pakara*, and *Piñoco* in 1690 sent a delegation to the governor, D. Augustin de Arce, to sue for peace. This occasion was seized by the Jesuits to start the pacific conquest of the country to the "greater glory of God." The first mission was that of San Francisco Xavier, founded in 1691 by Father José de Arce among the *Piñoco*. The *Chiquito* at that time were constantly harassed by the Paulista slavers or *mamelucos*; entire tribes were exterminated or were taken in captivity to the Brazilian coast. The final destruction of the native population was averted, thanks to the energy of the Jesuits who, with the help of a Spanish contingent and of the *Chiquito* themselves, defeated a party of slavers who had occupied the newly founded mission.

Between 1691 and 1755 the Jesuits founded eight missions in the Province of Chiquitos, concentrating in each representatives of many

different tribes or subtribes. In 1767 the Jesuits were expelled and soon the well organized and populous *Chiquito* missions slipped back into the half barbarous condition in which they have remained up to the present.

THE ETHNOGRAPHY OF THE CHIQUITOS REGION ACCORDING TO THE SIXTEENTH-CENTURY SPANISH CHRONICLERS

The only way to put some order in the confused information about the Indians of the Province of Chiquitos, is to follow the itinerary of the first conquistadors and to list the tribes found in the regions discovered by them. Utilizing the few geographical data to be gleaned from their accounts, it will be possible to give approximate locations of the tribes mentioned and, in a few cases, to establish the synonymy of different names applied to a certain group.

The tribes discovered by Domingo Martínez de Irala in 1542 and by Alvar Nuñez Cabeza de Vaca around Lake of Xarayes, on the Upper Paraguay River (17° S. lat.), were perhaps culturally and linguistically distinct from the *Chiquito*, but as they have disappeared without leaving any trace, they may be treated together with the other tribes of Chiquitos—the more so since they actually were included in that ancient province.

INDIANS OF THE UPPER PARAGUAY AROUND PORT OF LOS REYES

The Indians inhabiting the district around Port of Los Reyes (17° 58' S. lat.) were the *Sacoci*, *Socorino* (*Surucusi*), *Xaquete* or *Xaquese*, and the *Chané*.

The *Chané* were newcomers in the region. They told the Spaniards that they had followed the Alejo Garcia expedition on its way back from the border of the *Inca* Empire and then had settled in two villages near the *Sacoci*.

All these tribes were agriculturists, but, unlike some other Indians, the men planted and sowed whereas women helped only with the harvesting. Their staples were manioc (several varieties), maize, sweetpotatoes, peanuts, and mbocaja palm fruit. They raised ducks and hens, which were shut at night in tightly closed chicken houses for protection against vampire bats.

Men and women usually went naked, but had cotton cloaks, which were stored in large jars sealed with clay to protect them from crickets. Men wore large wooden disks in the ear lobes, hence the name *Orejones*, "big ears," often given to them, and the women wore in the lower lip "a grey stone of crystal, thick and long as a finger" (Schmidl, 1938, p. 106). They are said to have had wooden "idols" which they worshiped.

TRIBES BETWEEN PORT OF LOS REYES AND THE LAKE OF XARAYES

The *Artan* lived a day upstream from the Port of Los Reyes. They were agriculturists, but sowed little because most of their land was periodically inundated or covered with arid sand. They went naked. Men inserted into their lower lip the round husk of a fruit and the women tattooed their faces with the tip of the tail of a stingray.

The *Yacaré* Indians were also inhabitants of the Paraguay banks, 36 leagues upstream from Port of Los Reyes. They were fishermen and hunters (Schmidl, 1938, p. 109).

The *Perovosan* (*Peroboazan*) are placed by our sources north of the *Artan*, south of the *Xaray*.¹⁹

TRIBES OF THE REGION OF XARAYES (17°-16° S. LAT.)

The *Xaray* (*Jeru*) Indians had four adjacent villages around a large lagoon or lake in the Upper Paraguay region. They were fairly numerous, if the village in which the Spaniards stayed actually had about 1,000 inhabitants. The houses, in which only a single family dwelt, were grouped around a plaza. The furniture consisted of cotton hammocks and wooden benches.

The *Xaray* were good agriculturists "reaping twice a year, maize, potatoes, manioc and peanuts" (Hernandez, 1891, p. 211). Fishing and hunting (deer and ostriches) were important in their economy and they raised hens and ducks.

Men went naked, but women had "their privities covered, and many of them wore wide cotton dresses, this material being in use among them under the name of tipoy." Their main ornaments were stone labrets "the shape and size of a draughtsman" and a wooden ring (probably disk) in the lobes of their ears (Schmidl, 1938, p. 110). Men were painted blue from the head to the knees, women from the breasts to the lower abdomen (Schmidl, 1938, p. 111).

They wove cotton mantles decorated with all kinds of figures, though Schmidl probably exaggerates when he says that "they embroidered deer, ostriches, Indian sheep, or whatever else they could" (Schmidl, 1938, p. 113). Their weapons were bows and arrows; their musical instruments, drums and trumpets. These Indians had silver and gold ornaments which they obtained in barter from tribes close to the Andes.

The chief of the *Xaray* ruled over four villages.

In his 18-day expedition west of the *Xaray* (1543), Hernando de Ribera met the *Siberi*, who were linguistically and culturally related

¹⁹ In an official document of 1561 (Mujfa, 1914, anexos, vol. 1, p. 57) the Indians of the region of the Port of Los Reyes are listed as follows: *Orejones* ("Big Ears"), *Arencoci*, *Guarecoci*, and *Yjuaxard* (probably *Guaxarapo*), *Poszereba*, *Canes* (certainly *Chané*), *Xaracs* (*Jarayes*), "all people with large fields and much food."

to the *Xaray*, and also the *Ortu* and *Aburuñe*. These Indians wore gold plates on their foreheads and silver bracelets around their arms.

INDIAN TRIBES BETWEEN THE UPPER PARAGUAY AND THE UPPER GUAPAY, OR RIO GRANDE

In 1548, Domingo Martínez de Irala, in his expedition across the northern part of the Chaco and the southern plains of Chiquitos, passed through the territory of the following Indians: The *Mbayá*, their vassals the *Chané* and *Tojana*, the *Paiyono*, *Mayágueno*, *Morrone* (*Moro?*), *Porono*, *Simeno*, *Guorcono*, *Carcono*, *Siberi*, *Paysuno*, again the *Mayágueno*, *Gorgotoquí*, and *Tamacoci*²⁰ (the *Makasi* of Schmidl) on the Rio Grande (Guapay River).

The ethnological data on these tribes are few: The *Simeno* and *Mayágueno* protected their villages with thorny hedges; the *Siberi* prepared a drink with tubers (*Mandioca pepira*) and obtained their water from deep wells. In his expedition of 1557-1558 from the Lake of Xarayes to the foot of the Andes, Nuño de Chaves met the following Indians: *Xaray*, *Paravazan* (*Perobozan*), *Corbina*,

²⁰ In his letter to the Council of Indies on his expedition to Peru, Domingo Martínez de Irala does not mention the tribes listed by Schmidl, but only states that "on arriving at the harbor of San Fernando (21°20' S. lat.), they proceeded on their journey through the territory of several people until they arrived at the province of the *Tamacocas* where they obtained information of prosperity and silver mines in the mountains of the *Caracasas*, news which we already had. . ." Irala waited for Nuño de Chaves "in the province of the *Corocotoquis*, which is 52 leagues distant from these *Tamacocas* . ." (Carta de Domingo Martínez de Irala al consejo de Indias, published by Lafone Quevedo in his edition of Schmidl, 1903, p. 408).

Martín Gonzalez in a letter to the emperor cites a few of the tribal names which appear in Schmidl's account. These are the *Moygano*, *Magranos*, *Cimeono* (*Simena*), *Cocorotoque* (*Gorgotoki*), *Tamacoci*. This author places the *Tamacoci* near the foot of the Andes and says that they had "white metal." (Martín Gonzales, clérigo al emperador Don Carlos, dando noticia de la expediciones hechas y de los atropellos cometidos, despues de la prisión del Gobernador Alvar Nuñez Cabeza de Vaca, in Schmidl's edition of 1903, pp. 477-479.)

Official documents, "Comisión al Gobernador de Santa Cruz de la sierra para que conforme à lo dispuesto en que hallare la tierra haga hazer las yglesias que le parecieren llevando licencia del cavildo de las Charcas para en lo necessario" (Mujía, 1914, anexos, vol. 1, pp. 42, 58, 61), give the "*Tamaguaci*" as the Indians among whom Irala ended his expedition of 1548. Ten years later Nuño de Chaves, after having divided the land of the *Gorgotoqui* among his followers, went to the Province of the *Tamaguaci*, where he met the party of his rival, Andrés Manso. The two conquistadors clashed near Gutierrez, on the Rio Grande (Guapay River). In another document referring to these events, "resolución de los casos ofrecidos al Capitan Nuño de Chaves desde el año de cincuenta y ciete" (Mujía, 1914, anexos, vol. 1, p. 89), it is stated: "atraveso [Nuño de Chaves] a la provincia de los tamacocios en donde sobre el rio guapay por otro nombre chinguri hizo asiento y sembró. . ."

In the "Relación verdadera del asiento de Santa Cruz de la Sierra" (Mujía, 1914, anexos, vol. 1, p. 519) there is the following information on the *Tamacoci*: "En estos llanos, que no se sabe aun dónde acaban, porque siempre van costeano el río, entretrejiéndose en medio y por los arroyos hermosos y los grandes bosques, viven unos indios que se llaman tomacucis, que ahora son pocos y han servido à los cristianos. Desfíendense de los Ciriguano por estar en raso, dado que son amigos contra nosotros." The city of Nueva Asunción, better known as La Barranca, was founded by Nuño de Chaves in the territory of the *Tamacoci*. As it was situated on the Rio Grande (Guapay River), between the 17° and 18° of lat. S., the geographical position of the *Tamacoci* can be established with greater accuracy than that of any other tribe of the same region.

Ortugues (the *Otues* of Hernando de Ribera), *Otones*, *Pamono*, *Xaramecoci*, and *Chiquito*.²¹

The Indians subjected by Nuflo de Chaves in the Province of Chiquitos were the *Gorgotoqui*, *Chibachicosi*, *Quibaracoci*, *Urracoci*, *Tarapecoci*, *Uboyono*, *Chané*, *Guaracano*, *Xarrome*, *Tipiano*, *Chiacano*, *Allano*, *Moriano*, *Machacarci*, *Pororono*, *Anciono*, *Paycono*, and *Capayxoro* (Mujía, 1914, anexos, vol. 1, p. 47).

The *Gorgotoqui* or *Corocotoqui* are often mentioned in the documents dealing with the conquest and colonization of the Province of Santa Cruz de la Sierra.

The *Gorgotoqui* lived not very far from the Guapay River since they were the immediate neighbors of the *Tamacoci* who inhabited its bank. It was from the town of Barranca, near modern Santa Cruz de la Sierra, that Nuflo de Chaves in 1560 started his expedition against the *Gorgotoqui* which ended with the foundation of the first Santa Cruz de la Sierra, near San José de Chiquitos. He describes this province as being "40 leagues wide and having 80,000 fires, a land of much food and many fields" (*Relación de los servicios del Capitán Nuflo de Chaves*, in Mujía, anexos, vol. 1, pp. 62-63). Numerous *Gorgotoqui* chiefs were allotted as serfs to the first settlers of Santa Cruz. The Jesuits, who in 1582 started to convert the Indians of Santa Cruz, learned the *Gorgotoqui* language "as one of the most useful to deal with the Indians of the region." Father Diego Martinez wrote a "Catecismo en gorgotoqui, capaccoro y payono," and Father Gaspar Ruiz composed a "Gramatica de la lengua Gorgotoqui del Perú," but neither manuscript was ever published. All our sources stress the numerical importance of these Indians.

Gorgotoqui men wore a stone labret in the shape of a disk, and women also introduced a "green or grey stone" in their lower lips. The women dressed in large cotton shirts or tipoyes. Their cultivated plants were maize and several kinds of tubers. Bows and arrows were used as weapons, and tapir-hide shields for protection.

The *Anetine* were discovered in 1560 by a lieutenant of Nuflo de Chaves, Hernando de Salazar, near the "land of the *Candives*" or "Tierra rica," term synonymous with the fabulous Province of Mojos.

The *Tacumbiacu* and *Nambu* were Indians whose habitat must be placed between the Guapay River and the western part of Chiquitos.

²¹ In the "Resolucion de los casos ofrecidos al Capitan Nuflo de Chaves desde el año de cincuenta y siete" (Mujía, 1914, anexos, vol. 1, p. 89) the tribes which Nuflo de Chaves met during the same journey are given as follows: "atravesó alest noruest dosientas leguas poco mas o menos visito y pacifico las probincias de ortugueses corbinas e tonespamono pay curixacamecoci hasta llegar á la provincia de taquimeri gente belicosa de yerba. . . ." It is evident that several names have been welded together by the copyist or editor of the document. The *Taquimeri* are the *Tapuymiri* or "small enemies," a word translated in other texts as *Chiquito*. The name *Chiquito* may well have originated with the *Guaraní* word "Tapuy miri" and not because the doors of the *Chiquito* houses were very low.

After the founding of Santa Cruz de la Sierra, Nufflo de Chaves went to take possession of the land occupied by several Indian tribes in the vicinity of Santa Cruz de la Sierra. The tribes he subjugated were the *Xariono*, *Tipiono*, *Chiacono*, *Abano*, *Guaracono*, *Monyone*, *Machacara*, *Poriono*, *Amyono*, *Capaizoro*, and *Chané* (Resolución de los casos ofrecidos al Capitán Nufflo de Chaves desde el año de cincuenta y siete, in *Mujía*, 1914, anexos, vol. 1, pp. 101-102).

POPULATION

In 1696 the Jesuits calculated the population of Chiquitos at about 18,000. In 1766 the native population of Chiquitos was distributed as follows:

S. Xavier -----	3,201	S. Joseph -----	2,715
Concepción -----	3,278	San Juan -----	1,953
S. Miguel -----	1,473	Santiago -----	1,614
S. Ignacio -----	2,734	Santo Corazon -----	2,287
S. Rafael -----	2,746		
Santa Ana -----	1,787		23,788

In 1831 the total number of *Chiquitoan*-speaking Indians was 14,925 (D'Orbigny, 1839, vol 2, p. 130).

During the three centuries after the Conquest, the Spanish and Portuguese slavers, as well as several epidemics, took a heavy toll of *Chiquito* Indians. The last recorded smallpox epidemic was that of 1828.

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THE ETHNOGRAPHY OF THE CHIQUITOS REGION ACCORDING TO THE JESUIT SOURCES

One of the main difficulties in the ethnography of the Chiquitos region is that the information extracted from historical documents is not corroborated by later evidence obtained from the more detailed Jesuit sources. The numerous Indians mentioned by the Conquistadors seem to disappear suddenly and we do not know whether they were exterminated or whether they continued to live under other names. The Jesuit descriptions of the *Chiquito* Indians in their native stage are few and very inadequate, and the value of these reports further impaired by indiscriminate reference to the *Chiquito* as an ethnic unit. Of the four groups of the *Chiquito* nation, only

the *Manasi* have been treated individually, and we are warned that the picture of their culture given by Hernandez does not apply to the other three groups. We are, therefore, obliged to distinguish between information concerning the *Chiquito* as a whole and that which specifically deals with the *Manasi*.

CHIQUITO CULTURE

The few ethnographical data on the *Chiquito* as a whole which can be gleaned from Jesuit reports and from D'Orbigny (1839-1842, vol. 2, pp. 589-659) are here compiled.

Subsistence.—Cultivated plants were maize, sweet and bitter manioc, peanuts, gourds, pumpkins, pineapples, tobacco, and, after European contact, rice and cacao trees. The staple was sweet manioc. Fields were tilled by men with hard, wooden digging sticks. After the harvest, small groups of men scattered through the bush to fish and hunt. The methods employed in these activities are not described, except for vague references to taking fish by drugging, shooting, and the use of traps. Game was broiled on a babracot in order to preserve it for a few days. Skillful hunters received high praise. At the end of the hunting and fishing season in August, the *Chiquito* started work in the fields. The *Chiquito* regarded the abdomens of female ants which were full of eggs as special delicacies. The Indians of the Chiquitos region dug wells to obtain water during the dry season.

Houses.—Houses were small, thatched beehive huts having a very low entrance as a protection against mosquitoes. Young men lived in large men's houses, described as open sheds, where visitors were received and feasts celebrated. Men slept in cotton hammocks, women on mats or on branches.

Villages were protected by thorny hedges and access to them was rendered more difficult by hidden, poisoned caltrops. Nufflo de Chaves in 1558 had to storm villages in the Province of Chiquitos defended by strong palisades.

Clothing and ornaments.—Except for chiefs and wealthy individuals, who wore shirts, men went naked. Women usually were dressed in a long shirt (tipoy), but before the missionary era, they wore a simple loincloth. Men perforated their lower lips for "tin" labrets and their ear lobes for feathers. Necklaces and anklets were made of seeds or of fruit shells. Belts of bright feathers were tied around the waist. They attached to their persons as ornaments or trophies the tails of game and feathers of birds which they killed. Both sexes let their hair fall down their backs and tied it on their napes.

The principal *Chiquito* weapon was the bow and poison arrows, greatly dreaded by both Indians and Spaniards. At close range the *Chiquito* fought with paddlelike, sharp-edged clubs of hardwood.

Social organization.—Chiefs (*iriabo*) were selected from men distinguished in war and were assisted by a council of old men. War prisoners were well treated and married within the captor tribes. Polygyny was the privilege of a chief, who needed several wives to brew beer for the feasts which he was obliged to arrange. They seem to have practiced sororal polygyny. The main aim of a warrior was to take prisoners.

Life cycle.—When a woman was pregnant, her husband never killed a serpent lest this harm the baby. After the fourth month of pregnancy, a woman refrained from sexual intercourse with her husband and did not resume normal relations until her child was weaned, that is to say, 2 or 3 years later. The husband had to remain idle for a few days after his wife's confinement.

Adolescent boys lived in the men's house and cut their hair short. A young man who wanted to marry had to show his hunting skill by giving about 100 rabbits to the girl's parents.

Men allowed their wives to have sexual intercourse with other men. One of the few recorded texts in *Chiquitoan* is a sermon (Adam and Henry, 1880, pp. 65-66), in which the natives are warned not to send their wives to sin with other men.

Dead were buried accompanied by food and their favorite weapons. In the missions, the Indian women mourned their parents for a long time but widows were easily consoled and soon remarried.

Musical instruments and recreations.—Flutes (with one or two stops), panpipes, and fruit-shell jingles attached to the ankles, gourd rattles, and whistles are the only musical instruments mentioned in the literature. In the pagan era, the *Chiquito* started their daily work by playing their flutes at dawn.

Dances were performed by two concentric circles, one of young men and the other of girls, singing and revolving around two flute players.

Several dances executed in the missions during festivals were perhaps survivals of a more remote past. In the *apanaococh* dance, the women dancers placed themselves in two lines and sang while alternately turning from one side to the other. Women danced also in a circle alternately facing one side and the other, and butting against each other while chanting simple refrains.²² Another dance consisted in a mock fight between two women, one of whom protected

²² "Tantôt elles vont en round, se donnant la main, et tout en faisant le tour se retournent en mesure alternativement d'un côté et de l'autre, en chantant des paroles à refrain." (D'Orbigny, 1839-1842, vol. 2, p. 604.)

a group of dancers hiding behind her from the other. The texts of some of the songs sung at the dances have been collected by D'Orbigny (1884, vol. 3, pp. 59-60). Here are a few specimens: (1) "Where is your mother? She went where she usually goes. When she comes back, she will punish you." (2) "Here goes the buck, looking for his mate, the little doe." (3) "Let us dance without fear, let us forget the past dances." (4) "Go away, my friend, lest my husband catch you. We shall see each other at noon." (5) "The legs of the partridge are as red as pepper. I shall meet you, I shall meet you." (6) "They got drunk with señorita honey; they thought it was big bee's honey, but they were wrong."

Games.—The national sport was a ball game which D'Orbigny (1839-1843, vol 2, pp. 595-596) saw 100 years ago. The two teams, accompanied by drummers, flute players, and other musicians, arrived on the field where they danced, making strange contortions, around the bundles of maize cobs used to mark the scores. The teams exchanged taunts for a while and then appointed referees who traced on the ground the limits of each team's territory. They all then took the most suitable positions to butt the ball. Those in the first row crouched so as to be sure to receive the ball if it flew low. Those in back were placed according to their size. The beginning of the game was announced by the beating of drums and music, and an Indian specially chosen for the occasion danced for a moment holding the ball which he suddenly butted with his head toward his own team. The ball always was struck back and forth with the head until someone let it fall, thus losing a point to the other team, which received a maize cob. The victors enjoyed the privilege of deriding their opponents and of drinking all the beer which had been brewed.

Alcoholic beverages.—The *Chiquito* prepared chicha of manioc, maize, and other fruits and were so given to drinking that the missionaries had to take the most severe measures to check them. The drinking bouts, to which they invited the neighboring communities, lasted several days and often were occasions for quarrels and fights, usually in revenge for past offences.

Religion.—The *Chiquito* regarded the moon as a female deity, but did not worship her. They saw manifestations of the wrath of the spirits in thunder and lightning. During an eclipse they shouted and threw arrows to drive away a celestial dog, which was thought to attack the moon, causing her to bleed.

Before drinking, they chased away the spirits by beating the ground with clubs. They attached great importance to omens and auguries obtained by the observation of animals, birds, and plants.

Shamanism.—Shamans were tribal or community chiefs. When asked to attend a patient, a shaman first tried to discover whether a

taboo, such as that against spilling chicha or throwing game flesh to dogs, had been broken. In the latter case the ailment was attributed to the revengeful soul of the animal which had entered a person's body. The shaman, therefore, sucked the ailing part and vomited a blackish substance; he also beat the ground around the patient with a club to scare away the intruding soul. The medicine man in attendance was given abundant food, but the patient himself was put on a diet of boiled maize.

More often the illness was blamed on a witch, usually a woman whose name the shaman was expected to reveal. Women who held some grudge against a family or who belonged to a family with whom the patient was on bad terms, were generally made responsible and were killed whenever possible. Revengeful feelings were also turned against any woman about whom the patient had dreamed and whom therefore he suspected of witchcraft.

When missionaries began to cure the Indians by the European methods of the time, they always were eager to be bled at the place where the pain was felt. At each new moon, the shamans went into seclusion, fasted, and had long talks with spirits.

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MANASI

The *Manasi* (*Manasica*) were a *Chiquitoan* tribe, situated in the north of the Province of Chiquitos "a two days' walk from the Mission of San Francisco Xavier" (Fernández, 1895, vol. 1, p. 260). Father Lucas Caballero, who discovered the *Manasi* in 1704, considered them a nation formed of "*Tapacuras* and *Quimemocas*." These two tribes, he adds, spoke the same language with insignificant dialectical differences. The informants from whom he obtained the data which he gives us on the *Manasi* culture, came from these two tribes. In his account of the *Manasi* he always refers to the *Tapacura* and *Quimemoca*. Fernández (1895, pp. 265-266), who lists about 50 *Manasi* villages, mentions the *Tapacura* and the *Quimemoca* as the western and eastern neighbors of the *Manasi*. Hervas (1800, vol. 1, p. 159) classifies the *Manasi* among the *Chiquitoan*-speaking Indians of the Jesuit missions. He places the *Tapacura* among the divisions of a *Manasi* subgroup. The question is of importance because if Lucas Caballero is right, the *Manasi* did not belong to the *Chiquitoan* stock, but to the *Chapakuran* family. As no *Manasi* vocabulary has come down to us, the problem will remain unsolved until the few *Manasi* words and sentences appearing in the original

text of Father Caballero are compared with the known languages of the area. The habitat of the *Manasi* was crossed by rivers of the Mamoré Basin, probably some tributaries of the Rio Blanco and the Guaporé River. The two names of rivers cited are the Sununalo and the Luquibiqui.

Father Caballero was led to *Manasi* territory by a party of *Purazi* (*Purati*, *Puraxi*) Indians, former enemies of the *Manasi*. The missionary was well received and was able to start a mission among this *Chiquito* subtribe.

Material culture.—There is little information on the material aspects of the *Manasi* culture. They were proficient horticulturists, hunters, and fishermen. Fishing was especially profitable when the rivers were low. The women were skillful weavers and their pottery was remarkably good, "ringing like metal to the touch." Potter's clay was kept long before it was used so that it might rot.

The bows of the warriors were unusually long and thick. Some of the *Manasi* (the *Tapacura*, says Father Caballero) used poisoned arrows obtained from the *Chiquito*.

Of their stone work, Father Caballero (1933, p. 21) writes: "They make objects of stone, very curious, carving them with stone tools and they also perforate them. . . . They have pierced stone pendants though the stone used is very hard."

They cut and carved wood with "fish teeth" (probably piranha).

In the main plaza of their villages there were two or four houses inhabited by the main cacique ("governor") and lesser chiefs ("captains"). These extremely high and wide houses were used for public and religious meetings. The houses of the commoners were also very large and had two doors, one of which opened onto the plaza.

The roads leading to their territory were strewn with caltrops.

Social organization.—At the head of each *Manasi* community there was a chief and a few "captains," probably noblemen. However, the "captains" seem to have had less prestige than the priests if the disposition of the various groups at public meetings actually reflected the social ranking: Immediately after the chief came the ceremonial priests and the shamans; the "captains" were placed behind these.

The chief maintained order in the community and represented it. He administered personally or through his subordinates sound thrashings to those who disobeyed his orders or committed any offense. Of his several wives, the principal one ruled over the women of the community. One of his sons, the heir apparent, dominated the boys of his age and, like his father, chastised those who deserved punishment. When the heir apparent was old enough to attend to public business, power was transferred to him "with many ceremonies and rites," but he had first to demonstrate his worth by leading a war

party. It seems, however, that his father lost neither his prestige nor the respect of his subjects. The chief's eldest son among the *Paressi* also had a privileged position.

Nobody dared leave the village without the chief's permission. Young people never sat in his presence, but stood respectfully at a distance. Commoners addressed the chief in a very formal manner. The chief organized feasts to which he invited the neighboring villages by sending them messengers.

The main chief lived in a huge house built by the people in the middle of the plaza. Each chief had two large fields which were tilled by his subjects. He received the first fruits of the crops and a share of all game and fish brought into the village. Dead chiefs were buried with special ceremonies and amidst general laments.

Religion.—It is to be regretted that Father Caballero presented a somewhat distorted picture of the *Manasi* religion in order to fit it into a devilish parody of the Christian faith.

The main deity was Omequituriqui, or Uracozoriso, who with a female deity, Quipozi, procreated the god Urasaña. These three deities were closely associated with the god Urapo Stiquitetu, whose voice was "like thunder" (probably Thunder God). Omequituriqui, who spoke with a loud voice, punished transgressors by afflicting them with diseases and appeared to them during their illnesses, but Urasaña, Urapo Stiquitetu, and especially Quipozi interceded for mankind. The goddess Quipozi seems to have enjoyed great popularity. She brought back the priests who flew to the sky and came to the help of sick people. She reproached the other gods for causing diseases and ordered the medicine men to cure faithful patients. Besides these major gods, there were a great many lesser deities or spirits, some of which were the souls of dead enemies. The water gods or spirits (*isituú*) were the "masters" (*dueños*) of the fish and water animals.

Cult.—*Manasi* sanctuaries were the large huts which served as the chiefs' residences as well as halls for public assemblies and banquets. When a ceremony was celebrated in honor of the gods, part of a hall was curtained off with many mats for their reception. In this tabernacle only the high priests of *mapono* could enter. The gods or spirits came down with "a sound which filled the air, agitated the mats, and made the building shake." The people who were feasting or dancing bade them welcome, saying, "Fathers, are you come." The gods answered urging them to continue rejoicing and reminded them that they were the ones who had created "game and fish and all good things." A high priest alone entered the compartment reserved to the three major gods, who were surrounded by spirits. A long conversation ensued during which the gods were consulted about the future, seasonable rains, prosperous harvests, successful hunting

and fishing, and the issue of planned war expeditions. The gods also warned them of impending attacks by their enemies.

Game—but never monkeys—and fish were offered to the gods and the oldest man in the community brought beer in a ceremonial vase.

When the ceremony neared its end, the *tini-maa* (ka) fled through the air carrying the priest with them and shaking the whole building as they ascended. After a while, the goddess *Quipozi* brought him back to the sanctuary in her arms, and held him there sleeping, while she sang in a sweet voice, and the women danced and repeated her songs, but the man sat in silence. The goddess was seen only by the priests who described her as a giant dressed in a white garment. The songs of the goddess started with the following verse, "Corotopi araorcaire y quirisoepi yo aire. . . ."

Priests solicited the protection of the river gods (*isituú*) by blowing tobacco towards the water and reciting the following incantation, "Ysitiuu achisionari niimitata achiato añe saaño." ("Drugs, shoot with arrows and fill your knapsacks.") One of the gods appeared to the priests and said, "I have given fish to my children. I shall return to the temple to get my reward."

When a new dance hall or sanctuary was inaugurated, neither the priest nor the rest of the community could eat meat for 4 days. Their diet consisted largely of fish, fruits, and tubers. They mourned, observed strict silence, and their sole occupation was that of weaving mats for the sanctuary. On the fifth day a meal was served in the temple to everybody.

An old woman, who was the priestess of the temple, received an artistically carved white stone from the main chief and with it struck him gently several times on the head. This was the signal for the beginning of the feast, during which everyone drank, celebrated war deeds, and occasionally quarrelled and fought.

Priesthood.—There were two classes of intermediaries with the supernatural: The ceremonial priests (*mapono*) and the shamans or medicine men.

Those who aspired to the office of *mapono* or priest had to be initiated before "down appeared on their chins." The old *mapono* vomited into a calabash a blackish substance with which he smeared the arms and shoulders of the candidate. The latter also had to drink what remained of the magic substance. Permeated with the stuff, he started to tremble. The initiator took the candidate on his back and flew to the sky. When the young priests returned from their celestial journeys, they generally cried "because the devils were so horrid."

Caballero speaks also of a rite the meaning of which is cryptic. The priest took the aspirant in his arms, instructed him to look at the full moon, stretched his fingers, and ordered him to let his nails grow.

The priests had to observe several food taboos and to refrain especially from eating granadilla, the fruit of the passion flower. They lived in large houses built by the community in the middle or outside of the village. They received abundant presents of crops and were the only persons who could eat the offerings given by the faithful. So great was the fear they inspired that their crops and probably all their belongings were safe from thieves. The gods punished those who offended their priests.

One of their main functions was to intercede with the gods for rain. "They invoked the gods in time of drought or when it rained too much. For all their needs, the people resorted to their *mapono*, who consulted the gods. The priests asked, 'Why does it not rain?' They (the gods) replied, 'Because the people do not obey our orders.' They all cried. The gods were placated and said, 'Now we shall pour water from the sky.'" (Caballero, 1933, p. 28.)

The gods very often descended to the priests' houses to have long talks with them. On such occasions the women went outside.

The priests kept serpents which they took with them to the sanctuaries, wound around their arms.

Shamanism.—Diseases were caused by animal spirits which entered the body or by a blackish substance which shamans were able to put into the bodies of their victims by means of magic.

Shamans did not rank so high as the ceremonial priests but differed from them in function if not in training. Shamans observed various taboos and also were given to drink the blackish substance received by the *mapono*. This magic stuff, stored in their stomachs, was the same mysterious substance by which they were enabled to destroy their enemies. A shaman had to be able to extract from the patients' body either the obnoxious substance or a serpent.

Voyage of the soul to the land of the dead.—Dead chiefs were buried in a grave lined with pieces of wood or stones so that the corpse would not be touched by the earth.

After the funeral, the mother or wife of the deceased brought an offering to the sanctuary, where the soul of the dead returned for a while and consoled the living. The high priest sprinkled the soul with water and taking it upon his back, mounted into the air in the direction of the Land of the Dead. They passed through forests, valleys, and marshes till after many days they came to a place where many roads met near a deep, wide river. There a supernatural character, *Tatusiso*, stood night and day upon a wooden bridge to inspect all such travelers. He had disheveled hair, was covered with filth, and his only clothing was a cloth around the loins. He often required the soul to stop so that it might be cleansed from lice. As this purifica-

tion was a painful ceremony, the soul often resisted and was then thrown into the river, a punishment which brought several calamities, like excessive rains, on the living. Caballero tells us that in a village which was cursed with uninterrupted rains, the priest consulted about the matter said that the excessive downpour was due to the punishment bestowed upon a young man's soul. The father of the dead boy made a miniature canoe which he gave to the priest, asking him to take it to the place where his son's soul was struggling in the water.

There were various divisions in the Land of the Dead, each under a special god, to which the deceased were assigned according to the circumstances of their death. Those who had been drowned were called *Asinecca*, and were provided with fish, bananas, and parrots by the water spirits. Those who had perished in the forest were called *Yirituca*, and those who had died at home were classified as *Posirabaka*. In one of the abodes, perhaps in that of *Quipozi*, which was the happiest, the souls were fed with a gum which was distilled from certain large trees. Here were black monkeys, honey, fish, and a huge mythical eagle which flew round and round.

Mythology.—The *Manasi* had a myth, probably somewhat modified by the Jesuit who recorded it, according to which a virgin of great beauty gave birth to a child who had no father. This child restored health to the sick, life to the dead, and performed many other miraculous deeds. One day in the presence of a large crowd he soared into the air and became the sun. The priests stated that the sun was a luminous human figure, though on earth it was not possible, because of the distance, to distinguish his form. Eclipses were attributed to attacks of serpents against the sun or moon, who were brother and sister. They were afraid that if these luminaries disappeared they would be turned into monkeys, jaguars, and other animals, and so would destroy each other. During eclipses of the moon, the people would shout, play their musical instruments, and shoot incendiary arrows. They cried, "Mother Moon, defend yourself. What will happen to us if you fail? Sun, protect your sister. Why don't you rescue her from her trouble?"

Language.—Father Caballero makes the very interesting statement that priests used for sacred purposes a language different from common speech. They spoke it "as Catholic priests do Latin." As this language was taught to the boys, many people were able to understand it, although few spoke it. The boys who served as Father Caballero's interpreters dictated a list of words in this sacred tongue. Father Caballero adds that in each community there were three languages: The common one, spoken by everyone; another, used only by women; and the third, this mysterious sacred language.

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CHURAPA

The civilized *Churapa* are the only *Chiquito*-speaking Indians who have been described by a modern anthropologist. Nordenskiöld (1922, p. 21) found from 500 to 1,000 of them in the Province of Sara, north of Santa Cruz de la Sierra. These *Chiquito* were captured by the Spaniards around 1690, east of the Rio Grande (Guapay River) and put under the control of the Jesuits. They were settled in a mission which shifted its location several times before it was transferred to Buenavista in 1723, where their descendants live. At the end of the eighteenth century their number was 2,017.

Very little remained of the *Churapa's* aboriginal culture when Nordenskiöld visited them in 1908, as most of them were slaves of the creoles of Santa Cruz. They were, however, still good agriculturists. They also hunted birds with arrows tipped with a wooden knob and shot fish with featherless arrows provided with a long rod of palm wood. The shafts of these arrows were reinforced at the butt by a little plug of hardwood and the feathering was of the Peruvian cemented type: two halved feathers were tied to the shaft with a cotton thread smeared with wax. The *Churapa* drugged fish with barbasco (*Serjania perulacea*) and ochohó (*Hura crepitans*).

Houses were built in the same style as those of the mestizoes: a gabled roof was thatched with palm leaves and walls were of palm leaves or of wattle and daub. Furniture consisted of palm-leaf mats, hammocks, and platform beds.

The *Churapa* were still expert basket makers and also manufactured panama hats for sale. Formerly they had made artistically painted pots, but these had degenerated into a plain ware. They carved wooden bowls and incised realistic motives on their calabashes.

During Christian feasts they danced with faces hidden by cloth masks and bodies covered with ostrich feathers. Certain masked dancers impersonated the sun. In these festivities they shot at each other with arrows tipped with wax.

Nordenskiöld purchased two *Churapa* wooden whistles; one is a round, resonator whistle with a blow hole, two stops, and two incised, concentric, toothed circles on one surface. Whistles of the same type and with similar patterns were common among the *Chaco* tribes.

The other whistle was a typical *Chiriguano* serére, a long piece of wood with a diamond-shaped cross section perforated from end to end. When blown, these were held vertically against the mouth and

the lower hole was stopped with the finger. The *Churapa* specimen was decorated with crudely carved checker and oblique lines.

The rules of ball games are unknown, except that a rubber ball was thrown with the head. They also tossed with the flat of the hand a shuttlecock made of maize leaves and a bunch of feathers. Another game consisted in throwing potsherds at white stones, each man trying to cover the target before his competitor. "Papamkosh" was a kind of bowling game played with palm nuts piled by fours into small heaps, which the players had to knock down with a ball. Children amused themselves by swinging bull-roarers.

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ARAWAKAN TRIBES: SARAVEKA, PAIKONEKA, AND CHANÉ

The *Saraveka* were an *Arawak* tribe, split into small groups living in the forests near the *Chiquito* mission of Santa Ana and along the hills on the northeastern border of the Province of Chiquitos. In 1831, there were 250 *Saraveka* at Santa Ana and 100 in the settlement of Casalvasco. The bulk of the *Saraveka* tribe had remained independent and in 1886 occupied the course of the Verde River, a tributary of the Guaporé River. The *Saraveka* language is closely connected with the *Paressí* and has greater similarity to the *Arawakan* dialects north of the Amazon and Xingú Rivers than to the *Mojo* and *Bauré* dialects, a fact which is interpreted by Créqui-Montfort and Rivet (1913 d, p. 530) as evidence that both *Saraveka* and *Paressí* are later emigrants than the *Mojo*.

The original home of the *Paikoneka* (*Paiconé*) and of their subtribe the *Paunaka* (*Pauná*) was the region north of Concepción de Chiquitos between the headwaters of the Blanco and Verde Rivers (between 62° and 61° W. long.). These Indians spoke *Arawak* dialects, which belonged to a subgroup of that family other than *Saravekan*.

The famous Jesuit missionary, Father Lucas Caballero, stayed for a short while in a *Paunaka* village during his journey through the northern part of the Province of Chiquitos in 1707. The Indians received him well, but kept their children from him lest he baptize them. The following year, however, they agreed to reside in the Mission of the Immaculada Concepción with *Unape* and *Karababa* Indians. A century later, 360 *Paikoneka* and 250 *Paunaka* remained at Concepción although 300 *Paikoneka* had returned to live in their native forests.

In the last century, the *Paikoneka*, to escape persecution by the Whites, returned to the bush and settled near the headwaters of the Rio Blanco, 20 leagues from Concepción.

The *Arawak* Indians were indistinguishable in costume and manners from the *Chiquito* with whom they were in close contact in the missions and whose language most of them had adopted. They were agriculturists, but did some hunting. Aboriginally, men went naked but women wore sleeveless shirts (tipoyes). The *Paunaka* made beer of a flour of carbonized maize grains boiled in large vessels. They had sacred images of their gods or spirits. They placed their dead in shelters made of interlaced branches and surrounded by a net to prevent access to the corpse by anyone but the priest and nearest relatives of the deceased. Two posts in this shelter represented deities, to whom they made offerings.

Another tribe in the vicinity burned its dead on pyres and collected the ashes in funerary urns.

In enumerating the tribes around the harbor of Port of Los Reyes mentioned in the accounts of the conquistadors of Paraguay, we have seen that some *Arawakan*-speaking *Chané* had settled in the marshy regions of Matto Grosso, around the swamps of Xarayes. There were also *Chané* groups in the western part of the Province of Chiquitos, as stated in official documents. Nuflo de Chaves, in his journey across this province in 1558, passed through the "Province of the *Chané*" before reaching the *Tamacoci* Indians on the Guapay River.

Chané were included among the Indians given as serfs to the first settlers of Santa Cruz, near San José de Chiquitos (Mujía, 1914, anexos, vol. 1, pp. 78, 80, 90). The name *Chané* is associated with *Gorgotoqui*, both being Indians whom Nuflo de Chaves pacified before founding Santa Cruz (see Mujía, 1914, anexos, vol. 1, pp. 94, 101).

REFERENCES

Cardús (1886, pp. 279, 284-285), Chamberlain (1913, pp. 487-488), Créqui-Montfort and Rivet (1913 d), Fernández (1895, vol. 2, pp. 58-60, 67-71), Hervas (1800, p. 160), Mujía (1914, anexos, vol. 1, passim), D'Orbigny, (1839, vol. 2, pp. 171-174, 188-191).

OTUKÈAN

The *Otukè*, the *Kovareka*, and the *Kuruminaka* spoke dialects of *Otukèan*, an isolated linguistic group, which shows, according to Créqui-Montfort and Rivet (1913 e), striking lexicographic affinities with the *Bororó* language.

The *Otukè* proper had their habitat in the northwestern part of the Province of Chiquitos, not far from the Bolivian-Brazilian border,

between 17° and 18° S. lat., and at approximately 59° W. long. Remnants of the tribe lived in the Mission of Santo Corazón.

The *Kovareka*, who formed part of the Mission of Santa Ana de Chiquitos, came from a region near 17° S. lat. and 60° W. long. In D'Orbigny's time, only 50 of these Indians remained in the mission, 100 having gone to live in the bush.

The *Kuruminaka* were located in the northwestern part of the Province of Chiquitos, around 16° S. lat. and 62° W. long. In 1831, 100 were settled at Santa Ana and 50 at Casalvasco.

REFERENCES

Créqui-Montfort and Rivet (1912, pp. 317-337; 1913 e, pp. 369-377).

TRIBES OF UNIDENTIFIED LANGUAGE, PRESUMABLY OTUKÈAN

D'Orbigny (1839, vol. 2, pp. 183-186) gives some scanty information on four Indian tribes of the Province of Chiquitos who, although speaking a *Chiquito* dialect, according to their own and their neighbors' testimony, once had spoken a language of their own. Though not a single word of their former language has come down to us, it may be surmised from their geographical position that they were subtribes of the *Otukèan* linguistic family (see Créqui-Montfort and Rivet, 1913 e, p. 369).

These hypothetical members of the *Otukèan* family were: 150 *Kuravé* in the Mission at Santo Corazón who had come from the banks of the Tucabaca River, a left tributary of the Otuquis River; 50 *Tapi* of the Mission of Santiago de Chiquitos, whose former habitat lay between 17° and 18° S. lat. and between 59° and 60° W. long; 50 *Kurukaneka* and 100 *Koraveka*, whose ancestors had been brought by the Jesuits to the Mission of San Rafael, the former from about 16° S. lat. and 60° W. long., and the latter from farther south, at about 18° S. lat.

GUATO

ARCHEOLOGY

The *Guato* inhabited the marshy and flooded plains of the upper Paraguay River Basin. On these plains there are low mounds covered with groves of acuri palm, a plant of great economic importance to the *Guato*. Two mounds near the Caracara River were investigated archeologically by Max Schmidt (1914). Schmidt showed that these mounds are artificial ellipsoidal platforms—one measuring 540 feet (140 m.) by 245 feet (76 m.), the other 170 feet (52 m.) by 150 feet (45 m.)—that had been built about 2 feet (0.6 m.) above the original ground level to provide places where the acuri palm could grow

safely above the reach of floods. Pits, from which earth for mound construction had been taken, remain near each mound. The earth of the mounds contained animal bones, snail shells, stone fragments, and potsherds. The pottery was exceedingly crude and very similar to that of the modern *Guato*. It was ornamented only with a few incised grooves along the edges, scratched lines, and a somewhat thickened edge around the mouth. A grave contained a skeleton in a reclining position with its head toward the west and two plain stone hammers similar to those which the modern *Guato* used to crack acuri palm nuts. These cultural parallels between the early occupants of the mounds and the present *Guato* suggest a fundamental identity.

HISTORY

The *Guato* are mentioned for the first time in the Commentaries of Alvar Nuñez Cabeza de Vaca (sixteenth century) as inhabitants of the Upper Paraguay River Basin, where they are found today. They are always listed with the *Guacarapo* and described as bellicose Indians feared by the *Guaraní*. They even are said to have partaken in a cannibalistic meal with the *Guaxarapo* in which they ate the corpses of Spanish soldiers.

Azara (1809, vol. 2, p. 81) was the first to publish concrete information about the *Guato*. He described a group, numbering only 30 persons, who wandered continuously in dugout canoes on a lake called Laguna de la Cruz. Forty years ago, Max Schmidt (1905, p. 175) counted 46 *Guato* scattered in single families on Lake Gaiba and Lake Uberaba, and on the river connecting these lakes. A few *Guato* lived also at Figueira on the Paraguay River, on the lower São Lourenço River, and along its tributary, the Caracara River. Although the total population perhaps exceeded the number seen by Schmidt, the *Guato* verged on extinction. Physically and morally, they had been adversely affected by intimate contacts with Brazilians.

The contrast between the *Guato's* developed chest and muscular arms and his stunted and bowed legs and flat feet impressed travelers. These features are attributable to the *Guato's* amphibious life. They lived predominantly in canoes, making only short and infrequent walks on land.

SUBSISTENCE

The *Guato* habitat afforded abundant foods. The Indians took fish (piranha and pacu), alligators (whose tails were a delicacy), turtles, lizards, boas (sucuri, *Eunectes murinus*), deer, monkeys, birds, and turtle and lizard eggs. Fish were caught with hooks, shot with ordinary barbed arrows, or harpooned; they were also killed with clubs.

Vegetable foods included bananas from the ancient habitation sites, an aquatic plant seed (forno d'agua), and fruits of the acuri palm and sibota tree. Acuri nuts were broken in small cavities on stones. In the flood season, a *Guato* staple was wild rice, great quantities of which were both collected and stored in canoes.

Domesticated animals were limited to a few chickens and dogs.

Men did most of the cooking. Foods, especially meat and fish, were boiled. Alligator tails were roasted in hot ashes. Boiled meat was often mixed with bananas. Salt and red pepper were the main condiments. Utensils included pots, wooden mortars, wooden bowls for washing meat, flat sticks for stirring, and shell or wooden spoons for dippers.

HOUSES

Each *Guato* family spent several months in a permanent house on the bank of some river. Modern houses were built in the mestizo style, a gable roof resting on trunk walls. The primitive *Guato* house, which still could be seen at the places where the *Guato* camped for a night or two, was a flimsy and primitive thatched gabled roof that rested on the ground. These camp sites were the common property of all the family groups.

Goods were stored out of reach of sudden floods on a platform inside the house or in trees outside. Beds consisted of a mat plaited of acuri palm or of a rough cloth of tucum fiber and were covered with a jaguar or deer skin. Seats varied from crude lumps of wood to finished four-footed stools. To avoid mosquitoes, an unbearable menace after sunset, the *Guato* slept in a tent-shaped net made of tucum fibers intertwined with cotton cloth and stretched between two trees or paddles. This was excessively warm. Mosquitoes were driven out with a piece of cotton or tucum fiber cloth attached to a stick, or with a white smudge made by burning fragments of anthills.

CLOTHING

Both sexes wore a piece of cloth around the waist, which has been abandoned in favor of European garments. Formerly, some *Guato* had long hair with a single wrapped braid behind; today, hair is cut short. The *Guato* were among the few South American Indians with full length beards and mustaches.

Ornaments were few: a wooden labret in the lower lip, a small tuft of feathers in the ear lobe; necklaces of seeds (Leite da nossa Senhora), or of animal teeth, especially alligator teeth and claws; and woven armbands 2 feet long with fringes lengthened with small cords.

BOATS

The *Guato* spent most of their lives in boats. These were dugout canoes with a tapering bow and a somewhat widened and massive stern that often had a low, raised edge, where the woman sat to steer. Paddles were well made, lanceolate, $7\frac{1}{2}$ feet (2.2 m.) long, and characteristically lacked any crutch or grip on the handle end. In shallow marshes, canoes were poled with punts that often had a wooden fork attached to the distal end in order to give a better hold on aquatic plants.

MANUFACTURES

Pottery.—Women made a few pottery cooking vessels, water jars, and bowls. Pots were coiled, smoothed with a shell, and baked for about 10 minutes in an open fire. Vessels were usually rounded and had pointed bottoms. Water jars had short necks. The finish was crude and decoration was limited to rudimentary fingernail impressions and small lugs.

Basketry.—The weave of baskets was affected by use of the acuri palm, which predominates in the region. As the fronds of this palm have pinnate leaves, they only can be woven to produce patterns of oblique and perpendicular stripes, in contrast to the fan palm, which permits a greater range of art elements. *Guato* baskets, mats, and fire fans were made of whole fronds, the midrib being included in the finished specimens. The weave was a simple checker or twilled technique; edges were artfully braided.

Spinning and weaving.—Ropes, strings, and threads were made of two excellent fibers, tucum palm and cotton. Women carded cotton with a small bow. This bow is almost certainly of European origin; it was used in South America only by the *Churapa*, *Chakobo*, *Guarayú*, *Moré*, *Guana*, and *Guato*. Cotton threads were either spun clockwise with a drop spindle—a stick nicked at the proximal end and fitted with a whorl of wood or turtle shell. Tucum fibers were spun counter-clockwise by rolling them with the hand on the thigh. Three-ply string was twisted by rolling on the thigh.

Textiles were transitional between basketry and true weaving, all being variations of the twined weave. For mosquito nets, certain mats, and fly-flaps, the warps were crudely twisted bundles of tucum fiber which were held together at wide intervals by twining elements. Mosquito flaps and wrist guards for shooting bows were made by passing by hand a weft around the warp threads; these were so tight as to appear woven. Looms consisted of two posts between which the warp was wound. Only a simple wooden dagger was used in weaving. Threads were dyed orange, brown, violet, black, yellow, and numerous other shades in decoctions of bark or wood of several trees.

On tightly woven cloth, only the weft showed and carried the design. Various colors were used to produce wide, alternating vertical or horizontal bands and small transverse stripes. These occurred especially on fans for swatting mosquitoes and on armbands.

Weapons.—The most important weapon was a spear, the shaft of which was inserted into the hollow end of a sharpened bone point, usually a femur. Bows were about 6 feet (1.8 m.) long and had two features that may be very ancient: a more or less circular cross section, and a lack of terminal notches for the bowstring. The bowstring was affixed at each end of the bow to a ring plaited of cipo (creeper) strips, placed over wax smeared on the wood. Formerly, the bowstring was made of monkey sinew; recently, it was always of tucum fiber. Arrows were of cambayuva reed or uba reed, with a wooden foreshaft. Uba reed, being brittle and difficult to notch, had an artificial notch made by inserting three small wooden splinters in the butt. Arrows had six types of heads: 1, A cylindrical stick tipped with sharp bone, for most purposes; 2, lanceolate bamboo for large game; 3, a knobbed head for shooting birds and knocking yatuba fruits from trees; 4, barbed points; 5, removable (harpoon) heads—the last two types for shooting fish; and 6, plain sharpened wood for target practice. The harpoon head was of bone with a single barb. It was fitted loosely into a funnel made by wrapping cipo around the end of the foreshaft and was attached to the shaft with a string. Schmidt (1908, p. 188) describes only one cambayuva arrow—a bird arrow made of a whole stem, the bulge near the root serving as the head. All *Guato* arrows, including those for fish, had two feathers with their barbs trimmed on one side and attached tangentially at each end.

The arrow butt was seized between the index and the middle finger and the string pulled by these and the fourth finger.

Pellet bows were popular children's toys. These were flat, except for the rounded grip, and notched at each end for the string. Missiles were clay pellets.

Wrist guards were cotton strips, 2 feet long, wrapped around the wrist.

Fire-making.—Fire was made by drilling. The drill often was inserted in an arrow shaft to increase its length. The hearth had notches beside the holes.

Adhesives.—Wax and yatoba resin were used as adhesives.

SOCIAL AND POLITICAL ORGANIZATION

All *Guato* were split into small, biological families which generally lived alone and camped apart even when near other families.

An adult male left his father's camp immediately after puberty to establish his own family.

The three *Guato* local groups or subtribes, each with a headman, inhabited (1) the Upper Paraguay River Basin, (2) the region of Lake Gaiba and Lake Uberaba and the hills of Caracara, and (3) the lower São Lourenço River. These headmen were recognized by the Brazilian government. They would summon all the men of the subtribe to a general council. Castelnau (1854, p. 13) states that all *Guato* would foregather twice a year at some conspicuous geographical spot, such as Dourado Mountain or the entrance of Lake Uberaba. Chieftainship was inherited patrilineally. A chief whom Koslowsky visited (1895, p. 242) was surrounded by his grown sons and their wives.

Tribal members who had been absent for a long time were welcomed with wails and tears.

Although the last *Guato* were monogamous, they were polygynous when the tribe was more numerous; a man had, according to Castelnau (1854, vol. 3, p. 113), 4 to 12 wives, who were very jealous. If a woman were barren or died, her husband might marry her sister. Koslowsky (1895, p. 233) describes a *Guato* who successively married all his wife's sisters and finally obtained the number of children he had desired.

Kinship terms distinguish the father's from the mother's siblings. Terms for uncles are shortened forms of the mother and father terms: F, bápa; FBr, pa; M, meme; MBr, me.

Each family was an economic, self-supporting unit. Though they visited often (announcing their visits by blowing a cow horn), they traded little if at all.

Men did most of the work, providing and cooking food, plaiting baskets, and paddling canoes.

Prestige hinged on the number of jaguars a man killed. He kept and exhibited their skulls. Even a man's eligibility for marriage depended on his having killed a jaguar. A man hunted jaguars alone as a pastime. He beat the ground with his spear or wounded the jaguar with an arrow to force him to leap, when he impaled him on the spear. He might also attract the animal by blowing a cow horn, killing him as he swam near the canoe.

ESTHETIC AND RECREATIONAL ACTIVITIES

Art.—Except for the woven patterns described above, the only *Guato* art consisted of notches carved on the sides of mush stirrers and on wooden spoon handles.

Musical instruments.—The *Guato* formerly used bamboo or bone flutes that had three stops. Twenty years ago they played only

guitars that were copied from European models and accompanied them with the musical rasp or notched stick.

Dances.—The two favorite dances of the *Guato* were the kururu and the siriri, both introduced by the Brazilian mestizoes. The kururu consisted of walking to the rhythm of a song improvised about any occasion, generally in honor of the host. The siriri was a dance in which the participants, jumping and bouncing, broke a line formed by other dancers.

Beverages.—Each family owned a grove of acuri palm and used it for wine. Wine was made only in the dry season. A man climbed a tree on a notched ladder, bent down the palm fronds, pierced their bases with a shell, and collected the sap. This usually killed the tree. After standing a night, the sap was drunk through a reed. During drinking bouts, some individuals might wrestle; mourners might pause to wait for their dead.

WARFARE

Except for many years' warfare against the *Colorado* Indians, the *Guato* were peaceful and did not trespass on neighboring territory.

RELIGION

Our sources give no information on religion.

REFERENCES

Azara (1809, vol. 2, pp. 80-81), Beaurepaire Rohan (1869, pp. 377-378), Castelnau (1851, vol. 2, pp. 373-374; vol. 3, pp. 1-32 passim), Hernandez (1891, pp. 213, 227, 234), Koslowsky (1895), Monoyer (1905), Max Schmidt (1905, pp. 135-159, 175-317; 1914), Simoens da Silva (1930), Wavrin (1926, pp. 13-15 and passim).

CARIBAN PALMELA

In 1877, Severiano da Fonseca (1880-1881, vol. 2, pp. 190-196) obtained a short vocabulary from some Indians whom the Brazilians called *Palmela* who lived 8 leagues from Pedras Negras, on the right side of the Guaporé River, somewhat above San Simão. Many words in this vocabulary bear striking affinities to *Carib*. The *Palmela* told Fonseca that their ancestors came from an unknown region, formed for a while part of the Jesuit Mission of San Miguel, and finally settled on the Guaporé River. At the end of the nineteenth century there were only 400 of them left. They were supposedly under the authority of a female chief who had white blood. They cultivated maize, manioc, cara, sweetpotatoes, gourds, pumpkins, and a few imported plants such as sugarcane, oranges, and melons. They also raised hens and ducks.

THE TRIBES OF THE UPPER GUAPORÉ RIVER

TRIBAL DIVISIONS

In the basin of the Branco, or São Simão River there were three tribes which spoke dialects containing many *Tupí* elements. The language of two other tribes had some linguistic affinities with *Carib* and *Gê* dialects (Snethlage, 1939, p. 4).

The *Makurap* and *Arua* had many *Tupí* linguistic features. They lived around the headwaters of the Colorado River, a tributary of the Branco River. The *Tupari*, who linguistically and culturally were close to the Indians of the Mequens basin, had their habitat on the watershed of the Branco River and on the southern tributaries of the Gy-Paraná or Machado River. The *Wayoro*, a mixture of *Makurap* and *Tupari*, were settled on the Branco River to the south of the *Tupari*.

The *Jabuti* and *Arikapu*, of the headwaters of the Branco River, spoke dialects very different from those of the tribes just mentioned, but culturally they were strongly influenced by their neighbors.

The *Amniapä* (*Mampiapä*) and the *Guaratügaja*, of the headwaters of the Mequens River, were related to the *Tupari*. They were culturally close to the *Huari* (*Massaka*) who inhabited the upper course of the Curumbiara River, a tributary of the Guaporé River. Snethlage (1937, p. 125) puts the total number of *Amniapä* and *Guaratügaja* at 500.

SUBSISTENCE

Farming.—Sweet manioc was the staple food of the Indians of the lower Guaporé River, but the tribes upstream relied mainly on maize and peanuts. All of these tribes, however, cultivated several other plants. The *Huari* raised, in addition to the species mentioned above, hualusa, cayenne pepper, papaws, gourds (hoco and pumpkins), rucu, cotton, and some tobacco. The *Guaratügaja* and *Wayoro* had black beans. All these Indians tilled the soil with simple digging sticks and weeded it with chonta knives.

Anyone who obtained assistance in clearing or tilling his fields was obliged to entertain his helpers with beer and snuff (see *infra*). After a cooperative project, *Guaratügaja* workers returned from the fields playing musical instruments and shouting gaily.

Crops often were stored in the fields on large covered platforms. Peanuts were kept in big bamboo tubes.

Collecting wild foods.—The Guaporé tribes depended to a considerable extent on natural food resources. All relished caterpillars and even raised large beetle grubs which hatched in the dregs of maize beer that accumulated in long bamboo containers. Honey was of special importance to the *Huari*.

Hunting and fishing.—The only information available about hunting and fishing is that fish were shot with multipointed arrows or drugged with a creeper, that birds were attracted by blowing whistles and were shot from small watchposts built in the forest, and that game was taken in pitfalls. *Huari* hunting huts are described as "plaited together of palm-leaves stuck into the ground in a circle" (Nordenskiöld, 1924 b, p. 28). *Makurap* hunters carried small stones that were supposed to give strength to their arms and legs.

Food preparation.—The *Guaratägaja* peeled manioc tubers, but, instead of grating them, mashed them with a small stone pounder. They pulverized maize and other foods in a long wooden trough with a large pounder. *Wayoro* mortars were pieces of bark; pestles had bulging heads. The *Huari* used round basketry strainers.

The *Amniapä* baked wafers and buns of manioc flour. They preferred a sort of mush made of peanuts mixed with maize or beans and regarded boiled mushrooms as a special delicacy. Grubs were eaten with maize mush. Without removing the skin, the *Amniapä* roasted pieces of meat on pyramidal babracots. The *Guaratägaja* made containers of bamboo split in two.

Domesticated animals.—The Guaporé tribes kept dogs, hens, and ducks.

HOUSES

Communal houses were huge domed structures, from 50 to 66 feet (15 m. to 20 m.) high, thatched with leaves. Each house was divided by mats into several family compartments. *Tupari* huts sheltered up to 35 families; *Wayoro* houses contained more than 100 occupants.

Inside each house stood a platform, some distance above the ground, for the storage of food and various objects. A kind of altar, consisting of a painted, woven screen, was in the middle of the hut. People slept in hammocks. The *Wayoro* and *Makurap* had hammocks which were from 15 to 18 feet (5 to 6 m.) long. *Amniapä* men sat on small wooden benches that had concave upper surfaces.

DRESS AND ADORNMENTS

Men of all these tribes, except the *Tupari*, wore only short skirts of burity fibers. *Huari* and *Guaratägaja* men wrapped their penises in a leaf. The *Amniapä* and probably the tribes related to them tied around their upper arms and calves cotton bands and seeds, teeth, shell disks, feathers, and other objects hanging from a long fringe. *Huari*, *Amniapä*, and *Guaratägaja* men inserted resin labrets, sticks, or even porcupine bristles in their lips and suspended large trapezoidal shell plates on strings of beads from their ears. Men of all tribes, except the *Huari*, passed feather bundles attached to sticks

through their nasal septa. Some *Huari* men wore a chain of chonta rings extending from ear to ear across the nape of their necks.

Amniapä, *Guaratügaja*, and *Huari* men in full array had necklaces of rectangular or round pieces of shell, bracelets of white and black seeds, and all sorts of feather ornaments. The *Makurap* and *Tupari* wore bracelets of carved wood. On festive occasions the *Amniapä* passed strips of fibers under their armbands, attached artificial fiber tails to their backs, and donned frontlets of basketry or of jaguar or puma skin. The *Wayoro* wore skin caps. The *Huari* mounted feathers on their basketry circlets. *Huari* necklaces were often strung with animal teeth.

Men cut their hair across the forehead and allowed it to hang down the back of the neck.

A woman's outfit consisted exclusively of ornaments. She wore necklaces of shells or of shell disks, criss-crossed her breast with strings of many kinds of seeds, and attached fringed cotton bands around her upper arms. Unlike men's armbands, these lacked tassels. She often covered her right arm with rings of armadillo shell or of Brazil nuts. She placed sticks with feathers or beads glued to them through her nasal septum, put wooden or resin labrets in the holes of her upper and lower lips, and hung triangular shell plates attached to strings of *Astrocaryum* rings or simple *Astrocaryum* rings from her ears. *Huari* women wore tight fitting cotton bands around the fleshy parts of their limbs. *Huari* shell ornaments completely overshadowed feather decorations. Shell-disk necklaces were very similar to those worn by Indians of the Chaco, but were lacking among the *Tupari*.

Women's hair style was identical with that of men.

Among the *Amniapä* both sexes applied genipa paint to their bodies with maize cobs. The patterns were very elaborate and consisted mainly of combinations of geometric elements, with crosses, dots, circles, oblique cross-hatchings, and straight lines predominating. Men used a mixture of wax and a brown pigment to paint two dots under each eye. The *Makurap* painted themselves with a violet dye extracted from the leaves of a bush.

TRANSPORTATION

Heavy loads were carried in nets of tucum fibers.

Nordenskiöld (1924 a, p. 228) did not see any watercraft among the *Huari*, although the other tribes of the region had dugouts.

MANUFACTURES

The Indians of the upper Guaporé River did not make bark cloth. *Weaving and spinning*.—Women spun cotton by rolling the prox-

imal end of the spindle on the left thigh while resting the distal end between two toes of the right foot.

Fringed bands were woven on looms similar to those of the *Moré*. Hammocks, some 20 feet (6 m.) long, were made by wrapping the warp threads around two perpendicular posts and twining them together with a double weft. *Makurap* and *Arikapu* women used a bone or wooden needle to knit arm and leg bands around a circular piece of wood.

Netting and lacing.—*Huari* carrying nets were laced. The stitches, which were the same as those used for large-meshed nets, were not knotted but simply looped.

Pottery.—The clay used for pottery was not tempered.

Basketry.—Mats and carrying baskets are the only basketry objects mentioned in our sources. Some baskets were made in the hexagonal (or lattice) weave technique.

Burity fibers, used for skirts and back ornaments, were first boiled and then carded with a composite comb.

Miscellaneous implements.—Piranha teeth and deer horns served as tools.

Wax used on arrow bindings was softened with heat produced by friction from rubbing a fruit shell.

A *Wayoro* stone ax blade was inserted into a handle, lashed, and smeared with wax. A *Huari* stone ax head was hafted on a vine or on a split branch that was bent double around its butt and held fast with bast and wax.

Weapons.—Arrow shafts were first carefully straightened by heating and bending, then polished with a piece of bark, a fruit shell, or a stone. Arrows were tipped with bamboo blades, bone points, or spikes of stingrays. The *Tupari* and *Arua* used feathering of the Xingú sewn type; the *Huari* used the Arara type (see article on *Chapakurans*, p. 92). The *Tupari* often painted feathers with red and white earth. The *Tupari* had a bird arrow very much like the *Yurakare* dueling arrow. The *Amniapä* had three-pointed arrows for birds. Some *Amniapä* arrows were poisoned with curare and their heads covered with a sheath to prevent any accident when they were not being used.

Clubs, covered with embira strips, were used perhaps only as dance paraphernalia. The *Huari* had double-edged clubs, 4 to 5 feet (1.2 to 1.5 m.) long, decorated with a sheath of basketry, which were used ceremonially as well as for fighting.

SOCIAL ORGANIZATION

Most of these tribes were divided into sibs; those of the *Makurap* were patrilineal, those of the *Arua*, matrilineal. Sibs bore names

of animals which, however, sib members were free to eat. The *Makurap* and *Jabuti* sibs were exogamous. When a man of a patrilineal sib married a woman of a matrilineal sib, his status in the two sibs was very different.

A prisoner taken from another tribe or sib was incorporated into his captor's sib. He enjoyed great freedom, but had to pay a small tribute.

Economics.—A *Guaratüga* chief distributed game to all the men of his community, the latter sharing it with their wives and children. There was active trade between the various groups; most of the ornaments found among the *Jabuti*, for example, were received in trade from the *Makurap*.

Etiquette.—When one *Amniapä* community invited another to a drinking bout, the guests arrived in festive array, armed as if intending to attack. The hosts received them with a mock battle, then offered them benches, and, crouching beside them, uttered several polite formulae. The guests brought presents, the hosts reciprocated with food. When ready to leave, the visitors paid their respects by crouching next to their hosts, whispering a few words, and shedding some tears.

LIFE CYCLE

The couvade is reported among the *Makurap*, where the father of a newborn child also was forbidden to eat fish.

Naughty children were whipped with nettles.

A *Makurap* man desiring to marry a girl had to obtain the consent of her parents. If the father agreed to the union, he said, "Live with her, but don't beat her." The married couple lived first with the girl's parents, but after a while went to the husband's family. A betrayed husband might kill his wife's lover. A widow remarried only with the permission of the head of the sib.

Among the *Amniapä* a dead person was flexed and placed in a round grave under his hut. After the grave was filled, a fire was built over it. The *Guaratüga* burned the house in which an adult had died. The *Wayoro* smeared the body of a dead child with rucu and buried it in a pot. The *Tupari* placed tombs at some distance from the village and laid corpses inside on their backs. The *Makurap* placed a pot over the graves in their huts.

The *Arua* believed that the souls of the dead played a great part in world affairs. After death, men lived under a great lord called Minoiri. The ghosts wandered from place to place causing a great deal of trouble to people whom they disliked. They communicated with the living by using the shamans as intermediaries. They even gave charms to their favorite shamans.

CANNIBALISM

Amniapä and *Guaratägaja* readily admitted being cannibals. They barbecued the bodies of their enemies and both men and women ate them. They even ate members of their own group who had been put to death for a crime.

ESTHETIC AND RECREATIONAL ACTIVITIES

Art.—Some utensils, such as calabashes, were decorated by women with incised or burned (pyrograved) designs that consisted of series of lozenges and concentric circles.

Games.—The *Amniapä* played a game with a rubber ball which they batted only with their heads. The playing field was bounded with palm-leaf midribs; the score was kept with maize grains. Contestants were often members of different localities, visitors to a community usually being challenged to a game.

Dances and singing.—The *Makurap* danced in a line, each man placing one hand on the shoulder of the individual in front of him. They walked backward and forward, describing several figures, especially circles. Women, holding one another's hands, followed the men. Among the *Arua*, whenever a group of male dancers met a group of women, they took turns singing love songs that conformed to a traditional pattern. Women sometimes danced in front of men resting in hammocks and urged them to join the dance.

The *Makurap* erected a ceremonial tree around which they danced. *Makurap* dancers were characteristically well disciplined and made turns like a company of soldiers. The mat altar or plaited screen in each hut was generally a rallying place for the dancers, who walked backward and forward in front of it or around it. *Amniapä* dances consisted mainly of steps forward and backward or sideways, followed by stamping on the ground with the right foot. The dancers also made circular movements with their outstretched arms. Women danced holding each other's hands, whereas men moved individually.

Certain *Amniapä* ceremonies included dances by masked men. The masks were kept in the dome of the hut, but seem not to have been regarded as especially sacred, for women were allowed to see them. Each mask was made of a big gourd on which a human face was represented either by carving or by features that were fastened to it. Some masks were painted with vegetable or mineral pigments. Each performer danced with his mask attached to a net placed over his head, a drape of fibers concealing his body, and, in his hand, a long stick on the end of which was a wax image of a bird.

Songs were executed by choirs under the direction of a leader.

Musical instruments.—The musical instruments of the upper Guaporé tribes have been carefully listed by Snethlage (1939).

The *Guaratägaja* had belts with jingling *Thevetia* fruit shells attached to them.

The *Arua*, *Jabuti*, and *Arikapu* regarded gourd rattles as very sacred and believed that they were so charged with magical power that only shamans could handle them. The most sacred part of a rattle was a green stone which was put into the gourd together with ordinary seeds. Rattles were not found among the *Tupari* and the *Guaratägaja*.

Trumpets consisted of two parts, a bamboo tube and a resonator bell. The bell was always made of a gourd, except among the *Jabuti*, who also made it of bamboo. *Amniapä* and *Guaratägaja* kept their trumpets with their mask outfits and called them "gods," but played them without secrecy.

Makurap and *Arua* clarinets were made of a bamboo tube, the mouthpiece having a tongue split so as to produce different tones. A musician played two clarinets at once.

Only the *Arua* had true panpipes, which consisted of four closed and four open tubes held in place in two rows by a wrapping of fibers. The Guaporé Indians had a type of panpipe unique in South America; instead of pipes, it consisted of whistles, each with a sound orifice and a wax deflector. Some had only two or three whistles; others had eight whistles in two rows. The whistles were so arranged that two complementary tones could be played at the same time. When blowing this instrument a musician moved it up and down through a 90° angle. These panpipes had a ceremonial function.

End flutes with four stops are reported among the *Tupari*, the *Guaratägaja*, and the *Amniapä*. These tribes also used bone whistles ("Matako whistles") to attract birds. These had a sound orifice near the end and a wax deflector.

In contrast to the *Huanyam*, who liked to play individually, the upper Guaporé Indians had disciplined orchestras.

Narcotics and alcoholic beverages.—At any festive gathering, these Indians took narcotic snuff composed of crushed angico seeds, ashes of a certain bark, and pulverized tobacco leaves. They blew the powder into each other's noses through two tubes, each of which ended in a slightly bent protuberance made of a hollowed nut. At least 60 inhalations were required to produce stupor or drunkenness. To prepare this snuff, they used snail shells to crush the seeds, a small mortar made of a Brazil nut to grind the tobacco leaves, a brush to mix the various ingredients, and a bamboo box in which to keep the tobacco powder.

The *Guaratägaja* brewed maize beer by crushing the boiled grains in big wooden troughs and then adding the leaves of a bush which, like saliva added to starch, caused the mass to ferment. The *Wayoro* made beer of maize, manioc, and sweetpotatoes.

The *Amniapä* served beer in a vessel made of a bamboo joint to which a deer hoof was attached to form the mouth.

RELIGION

The religious life of these Indians is known mainly through external manifestations. Snethlage (1937, p. 114) was told about several mythical beings, gods, or culture heroes, whose true relation to ritual has still to be discovered.

Ghosts intervened constantly in human affairs and could be summoned if their help was needed, for instance, to expel a bad spirit. The visiting ghosts swarmed at night into the huts of the living, where they ate, drank, and talked with people who asked them questions. Snethlage (1937, p. 141) heard very distinctly the noise which they supposedly made when arriving and leaving.

These tribes had a ritual apparently based on the belief that an invisible magic substance floats in the air and permeates certain sacred objects, such as altars and rattles. This belief was not stated by the Indians but was inferred from the motions made by shamans and other people during religious ceremonies. The shamans pretended to catch the mysterious stuff from the air or from around sacred objects. They kneaded it between their fingers, held it against their chests, and gave it to other persons, who held it in their hands and made sucking noises as if they were swallowing it. It was generously distributed among all the participants in a ceremony, but seemed to be especially beneficial to sick people. Even food acquired virtue if filled with this mana, as evidenced by the natives' eagerness to have their shamans bless it.

Shamans had the power not only to capture this beneficial magic substance but also to drive it away and even to throw it in the direction of the enemy. There seemed likewise to be an evil principle conceived of as an invisible substance.

A complete *Wayoro* shaman's outfit included a snuffing tube, a magic board with a handle, and a feathered stick. The board was placed in front of an altar and, in certain cases, served as a table for the articles used in ceremonial snuffing. The various ingredients composing the snuff were mixed on the magic board. The exact significance of the feathered stick is obscure. The shaman filled it with magic essence and then acted as if it had become so heavy that he could scarcely lift it when he carried it toward the altar. Snethlage

(1937, p. 171) saw the magic board and the feathered sticks only among the Indians of the Branco River Basin.

The center of most ceremonies was the mat altar or plaited screen. The shaman knelt in front of it, spoke to it, and used it as a source of mystic power. Offerings of food or beer were left on or by the altar, and sacred objects were placed near it.

The ritual also required songs, some of them fairly long, which were sung either by the shaman or by a choir under the direction of a leader.

Women and children were strictly excluded from *Wayoro* ceremonies, during which men took snuff and absorbed the magic fluid.

Shamanistic cures followed the widespread pattern of sucking, blowing, and spitting. A *Wayoro* shaman removed disease from his patient by inhaling it through his nose with a snuffing tube, then, after absorbing it, he vomited it. The shaman imposed a diet upon his patient and himself. Parents had to fast when their children were put on a diet. *Arikapu* shamans enjoyed a great reputation; practically every member of the tribe was a medicine man. A *Tupari* medicine man rubbed a chewed root over the body of his patient and washed him with a decoction of leaves.

MYTHOLOGY

The *Amniapä* and the *Guaratägaja* attributed the creation of the world to Arikuagñon, who swam in a lake full of mandy fish, and begot the "god" Arikapua by his wife, Pananmäkoza. Arikapua introduced to men the custom of snuffing angico seeds. In ancient times, men were taught agriculture by Konanopo. Another mythical being, Bäräbassa, caused a general flood which was followed by a big fire. A couple which escaped both disasters repopulated the earth.

The first men were the Sun and Moon, who together tilled a field. For some unknown reason the Sun burned his brother and was sent to the sky by his father, Sahi, as a punishment.

Ssuawakwak, Lord of the Winds, caused thunder. Kipapua was the master of the spirits, who, at his behest, played their musical instruments, which were heard in this world and could be silenced only by shamans.

In the mythology of the *Arua*, the world was created by two brothers, Parikut and Parikap, who now have their abode in the west. At the beginning of time, the Sun shone during the whole day and the two brothers begged the Owner of Night for some darkness. They failed to procure it in their first attempt, but succeeded the second time and returned with darkness, which they gave

to mankind. The brothers also changed themselves into birds and stole fire from an old man who kept watch over it.

When the brothers were old a flood occurred. It would have destroyed mankind completely had not their sister split a tree and carved out of it two troughs. In each trough she placed a pair of children taken from the best families of that era. After the flood, the troughs landed in the bush and the children became the progenitors of mankind.

FOLKLORE

Only three folk tales have been collected from the upper Guaporé tribes. They were told by an *Arua* Indian.

1. A man found a toad in a hole and expressed the wish that it be a woman. The toad became a girl and the man married her. Both of them were toads during the rainy season and human beings during the dry months. Once, when the male toad expressed the desire to be a man all the time, he was immediately struck by lightning.

2. A woman fell in love with her son-in-law. She threw her daughter into a hole and changed herself into a young girl. The son-in-law slept with her, but her teeth revealed her deceit. He sought his wife and found her covered with worms. He forced his lascivious mother-in-law to restore her daughter to her former beauty, then drove the old woman away.

3. At one time the *Arua* were very poor. A deer made an *Arua* girl pregnant. Until the child was born the deer brought the girl manioc, maize, sweetpotatoes and other tubers, and fruit. After the child was born the deer showed him the tree on which these foods grew. Thenceforth, the *Arua* raised crops.

The myth of the Amazon is known to the *Makurap*, who believed that not far from their country there was a village, called *Arapinjatschäküp*, inhabited only by women, who were extremely warlike and kept men at bay. They also reported the existence of a tribe composed exclusively of bald men, the *Akarängap*.

UNKNOWN TRIBES OF THE GUAPORÉ BASIN

Creném.—The *Huanjam* told Nordenskiöld (1924, p. 245) that on the upper San Miguel River, a right tributary of the Guaporé River, lived Indians whom they called *Creném*. From other sources Nordenskiöld learned that these Indians had arrows identical to those of the *Pauseerna*, that they had large clearings, and that they made large, black, earthenware vessels. A pot in the form of a shoe, with a tubular neck, depicted by Nordenskiöld (1924 a, fig. 23), is supposed to have belonged to these Indians.

Kabishi, or Cabiju.—The *Huanyam* also spoke of *Kabishi*, or *Cabiju*, Indians who are related to them linguistically. All the Indians in the region use the word “*Kabishi*” to designate tribes unfriendly or somewhat mysterious to them. After Nordenskiöld’s visit, the *Huanyam* had fought with the *Kabishi* and incorporated the remnant into their own tribe. Snethlage (1937, p. 87) received confirmation from the *Huanyam* that the *Kabishi* language was the same as their own, although culturally the latter were somewhat different. The *Kabishi* had no blowguns and went naked.

Kumana-speaking tribes.—The *Kumana* informed Snethlage (1937, p. 81) that there were in the region three other tribes who spoke their language: The *Kujuna*, on one of the headwater streams of the Cautario River; the *Urunamakan*, at the sources of the Dominges or Cautarinho River; and the *Matua*, on the right side of the Cautario River. The *Kumana* stated also that they had been driven from their former home by the *Topaya* (*Tapuya*).

Chiquito.—On the basis of a short vocabulary which he obtained from an Indian child of the San Simón region, Snethlage (1936, p. 293) thinks that some of the unknown Indians of the region may speak a *Chiquito* dialect.

Other tribes.—In 1742, in addition to the *Moré*, Indians of the upper Guaporé River in contact with the mission were: The *Causinos*, *Cageceres*, *Jaquarora*, *Mequens*, *Guataros*, *Membaré*, *Guivía*, *Ababa*, *Paivaja*, *Urupuná*, *Ameõ*, and *Guazaité*. The *Mequens* were probably the *Amniapá* and *Guaratá-gaja*.

REFERENCES

Fawcett (1915, pp. 223–225), Gonsalves da Fonseca (1826, pp. 115–135), Nordenskiöld (1924 a, pp. 221–234; 1924 b, *passim*), Snethlage (1936, pp. 101–179; 1937, pp. 98–178; 1939).

NAMBIKUÁRA

TRIBAL DIVISIONS AND HISTORY

The *Nambikuára*, “long eared” (*Mambyuara*, *Uaikóókôrê*, *Kabishi*), have been mentioned in the literature since the seventeenth century, but those of the Serra do Norte were first discovered only in 1907 by General Candido Mariana da Silva Rondon. The *Nambikuára* extended from the Papagaio River on the south to the Gi-Paraná River on the north and from the Tapajoz River on the east to the Guaporé River on the southwest.

Roquette-Pinto (1938, pp. 215–216) gives the subdivisions of the *Nambikuára* as follows (*italics mine*):

The group which lives near the margins of the Juruena and Juina Rivers, from the Papagaio to the Camararé Rivers, which I shall call *southeastern group*, is named *Kókózú* or *Kókócú*.

The group which lives on the lower 12 de Outubro River and probably extends to the junction of the Arinos River with the Juruena River, where are to be found a few representatives of the first group, is called *Anunzé*. I shall name it the *northeastern group*.

The group on the southwest from Campos Novos to the Guaporé I shall call *Uaintaçú* and it forms the *southwestern group*.

The large *northeastern group* [the text here clearly intends to state *northwestern group*] inhabits the watershed of the Madeira River on the margins of the tributaries of the Gi-Paraná. It seems to be formed by secondary nuclei whose relationship has not been well defined. To it belong the Indians whom I met at Tres Buritis, in the Campos de 14 de Abril, in José Bonifacio, Campos de Maria Molina. Its principal nucleus lives between the 12 de Outubro and the Roosevelt Rivers.

Of the northernmost group I only saw the *Ragnanis*, *Tauitês*, *Salumás*, *Taru-tês*, *Taschuitês*, even so I hardly obtained data on the *Tagnanis* and *Tauitês*.²³

The average population of each of the 12 villages visited by Roquette Pinto was about 100. Rondon put the whole tribe at about 20,000 souls.

As the vocabularies of the *Nambikuára* dialects do not resemble those of any other South American language, these Indians must be regarded as representing an isolated linguistic stock.

Roquette-Pinto (1938, pp. 312-316) stresses the great primitiveness of the *Nambikuára* and places them on the same cultural level as the *Êe* tribes of eastern Brazil. Except, however, for their lack of hammocks, the *Nambikuára* were in no respect more primitive than their neighbors. They were most like the Guaporé River Indians, with whom they probably formed a single culture area.

SUBSISTENCE

In the dry season the *Nambikuára* consumed everything edible in their habitat, such as crickets, rats, serpents, lizards, beetle larvae, clay from anthills (geophagy), and countless wild plants. Agriculture was their main resource in the wet season. In circular clearings which they kept very clean, they raised two staples, manioc (*Manihot utilissima* Pohl) and maize, together with some beans (white and red), gourds (*Lagenaria sp.*), cara, sweetpotatoes, papaya trees, cotton, tobacco, and rucu. Their agricultural tools were digging sticks and stone axes.

Men devoted much time to the quest of honey, which they drank either pure or mixed with water or with the pulp of cocos de burity. To reach the combs on high trees they built flimsy scaffolds.

²³ Mr. Claude Lévi-Strauss, who visited the *Nambikuára* in 1938, was unable to find most of the names mentioned by the members of the Rondon expedition. Therefore, he proposes a new classification of the whole group on linguistic bases. Most of the names recorded in our sources are relationship terms or nicknames given to the groups by their neighbors or rivals. For the sake of completeness I shall mention the *Mamáindê*, *Tamáindê*, *Malondê*, *Sabanê*, *Iaiá*, *Nava-itê*, *Xaody*, and *Tayôpa*.

Hunters stalked game near watering places hidden in small palm-leaf huts. They built an elaborate trap for the sole purpose of capturing gallinaceous birds. By streams or pools they erected a fence, sometimes a kilometer long, which prevented the birds' access to the water except through a few passages leading into snares.

The *Nambikuára* fished with bows and three- or four-pronged arrows, with baskets, and with poison (*Tephrosia toxicaria*).

In preparing manioc, the tubers were peeled, grated on thorns embedded in a wooden board, and then squeezed with embira strips. The mass was kneaded into a ball and buried in the ashes of the hearth. The usual provision for expeditions was roasted manioc flour. The *Kókôzú* scraped green maize into a mass which was cooked under the ashes wrapped in bacába leaves. The *Nambikuára* kneaded into balls the pulp of the cocos de burity, which they detached with their teeth after these fruits had been steeped in water for a long time. They added to their water the juice of several fruits, especially of pineapples.

Most of the *Nambikuára* tribes roasted meat directly in ashes after crushing it in a cylindrical wooden mortar. The babracot, known only to the *Tagnaní* and the *Tavitê*, had a somewhat unusual shape; two horizontal branches rested on transverse sticks attached near the bases of two pairs of posts.

HOUSES

Nambikuára settlements were as a rule built on heights some distance from the rivers. They usually consisted of one or two communal beehive-type huts, each about 100 feet (30 m.) in perimeter. The central post was surrounded by four forked poles to which bent rafters were attached to form a circular frame. The hut was thatched with layers of bacába palm leaves. Doors were about 2 feet (0.52 m.) high. The round house was characteristic of the whole *Nambikuára* area with the exception of a single *Kókôzú* village, where Roquette-Pinto saw (1938, p. 221) a gabled house without walls.

Flimsy, temporary huts were built by sticking two branches into the ground, bending them over, and attaching them to a transverse rod lashed to two perpendicular poles. They were covered with bunches of grass or palm leaves. When camping in the open the *Tagnaní* and *Tavitê* sheltered themselves under a few palm leaves stuck into the ground.

House interiors had bamboo platforms on which food was stored and manioc spread to dry. All the *Nambikuára*, strangely enough, slept on the bare ground, although they were surrounded by tribes who used hammocks.

CLOTHING

Neither sex wore anything except ligatures of embira fibers around the waist and limbs, and bracelets and anklets, often made of cotton. Men occasionally threw a rudimentary fiber cape over their shoulders. Both sexes hung triangular pieces of shells from their ear lobes, but only men perforated their upper lips and their nasal septa, through which they passed reeds, capim (*Andropogon*) stalks, or, sometimes, feathers. Necklaces were strung with shell disks, seeds, nuts, and animal teeth. The *Nambikuára* also wore bracelets made of sections of armadillo tail. They put skin bonnets, generally of jaguar hide, and feather circlets on their heads. Their hair, groomed with a composite comb, was cut with a shell across the forehead and allowed to fall on the sides down the neck.

As a rule men pulled out the hair on their faces, though moustaches and a scant beard were not uncommon. Men never removed the axillary or pubic hair, but women were entirely depilated.

The *Nambikuára* smeared themselves, without attempting to trace patterns, with rucu mixed with grease and perfumed with some unknown substance.

TRANSPORTATION

The *Nambikuára* lacked canoes. To cross a river they either felled a tree across it or swam with the help of a bundle of burity stems.

Kókôzú babies straddled their mothers' hips, supported by a fiber or cotton sling.

MANUFACTURES

Spinning.—*Nambikuára* spindles had such thick clay whorls that they turned by themselves once they had been set in motion and dropped. Cotton thread was rolled in a ball and wrapped with leaves.

Weaving.—Arm and leg bands as well as the slings for carrying children are described as woven pieces of cotton, but there is no analysis of the technique in the literature.

Basketry.—The *Nambikuára* wove baskets and pentagonal-shaped fire fans of the pinnae of feathered palm leaves. Baskets of an open, hexagonal weave were very common.

Pottery.—There are a few references to large unpainted vessels and to crude pots among the *Nambikuára*.

Weapons.—Bows were from 5 feet 8 inches to 6 feet 8 inches (1.70 to 2 m.) long and made of an ipê (*Tecoma ipê* Mart.) wood. They had a semicircular cross section and an artistic cotton wrapping near the middle. All of the main types of arrows of tropical South America are represented in the *Nambikuára* collections. The feathering consists of two halved feathers wrapped with cotton thread at

wide intervals and smeared with wax. Arrows poisoned with curare had a series of barbs tied along their long cylindrical heads. To prevent accidents these arrows were carried with their heads inserted in a bamboo sheath. In shooting, an arrow was held between the index and the middle finger. The *Nambikuára* prepared the curare with which they poisoned their arrows with the bark of a *stychnos* sp. They poured water over shavings of the bark and boiled the liquid over a hot fire to purify it and then over a slow fire to thicken it. They skimmed off the impurities with a special basketry spoon and filtered the liquid through a leaf funnel. The preparation of curare was in many *Nambikuára* groups a secret known only to the chief or the shaman.

Clubs made by the *Nambikuára* were simple sticks, but more elaborate ones were sometimes acquired from other tribes.

Axes.—Axes had a flexible handle bent around the butt of the stone blade, to which it was lashed and glued with resin.

SOCIAL ORGANIZATION

Chieftainship was well developed among the *Tagnaní* and *Tavité*. In the other groups, authority rested with the family heads. Old people enjoyed general respect.

LIFE CYCLE

Only a little information on the life cycle, based on dubious evidence, is available. The navel cord of a new-born child was bitten; the placenta was covered with leaves.

Children were treated with great kindness.

A young man had to ask the father of a girl for permission to marry her. If the father agreed, he gave the groom a bow and arrows as a hint of his future duty.

The *Kólkózú* buried their dead in circular graves; the *Tagnaní* in elongated pits.

RELIGION

Concerning *Nambikuára* magic and religion, we know only that when a storm was coming, men gesticulated and insulted the rain in loud voices, and women, climbing to the tops of huts, threw ashes into the air.

MEDICINE

Practically every *Nambikuára* was a medical practitioner, but old men were more experienced. The native doctors placed fibers and rosin over wounds, poured cold water over burns, and set broken bones as well as they could. They treated fever with baths in cold water and headaches by blowing into the patient's nose. If the patient had

been bewitched, they cured him by sucking out the agent of the disease and by muttering charms.

NARCOTICS

The *Nambikuára* drank a sort of mead made of honey diluted in water. They also brewed beer of manioc, maize, or pineapples by the usual process of chewing part of the mass ready for fermentation.

The *Nambikuára* were ardent smokers. They dried tobacco leaves between two pieces of wood stuck into the wall of a hut. To make a cigarette they crushed the leaves with their fingers and wrapped the tobacco in a leaf. They carried tobacco in calabashes.

ESTHETIC AND RECREATIONAL ACTIVITIES

Art.—On the outer surface of calabashes, the *Nambikuára* painted triangles, rectangles, undulating lines, dots, and conventionalized representations of men and animals.

Dances.—War dances were performed by a group of armed men who first stamped on the ground to the rhythm of a song and then attacked, with bows and arrows and clubs, a post which symbolized the enemy.

Both sexes took part in profane dances. Men and women in pairs formed two concentric circles which revolved around three little girls. Theodore Roosevelt (1914, p. 224) saw a *Nambikuára* dance which he describes as "slowly going round in a circle, first one way then the other, rhythmically beating time with the feet to the music of the song they were chanting. The chants—there were three of them all told—were measured and rather slowly uttered melodies, varied with an occasional half-subdued shrill cry. The women continually uttered a kind of long-drawn wailing or droning."

Musical instruments.—The main musical instruments were a double or triple whistle with large sound orifices and flutes with four sound orifices and an airduct. The *Nambikuára* also had a resonator flute without an airduct, made of two calabash fragments glued together; this was blown with the nose.

REFERENCES

Missão Rondon (1916, pp. 285-329), Pyreneus de Souza (1920), Rondon (1913, pp. 47-57), Roosevelt (1914, passim), Roquette-Pinto (1912; 1914, pp. 95-225; 1938, pp. 168-316), Schuller (1912, 1921), Vellard (1939).

CHAPAKURAN TRIBES OF THE MADEIRA RIVER BASIN

On the tributaries of the Madeira River lived a few tribes whose languages show strong affinity to *Chapakuran*. These are the *Tura* on the Marmellos River, the *Arara* at the mouth of the Preto River,

a right affluent of the Madeira River, and the *Urupá* and *Jarú*, named after two left tributaries of the Machado River.

The original home of the *Tura* (*Tora*, *Toraz*) was a right tributary of the Madeira River, somewhat above the mouth of the Gi-Paraná River in the vicinity of the *Arara*. During the seventeenth century they migrated downstream and settled near Capana, from whence they sent war parties down to the Amazon River, where, in true pirate fashion, they attacked boats carrying cacao from Solimoes to Pará. In 1719 a Portuguese expedition under Jôa de Barros da Guerra destroyed a large number of the *Tura*. In the middle of the nineteenth century *Tura* Indians formed part of the population of Itacoatiara (Serpa) although some continued to roam the lower Madeira River. A distinguishing feature of the *Tura* was a tattooed strip running from the corners of the mouth to the ears. (Gonçalves da Fonseca, 1826, pp. 33, 43; Martius, 1867, p. 413.)

The *Arikême* (*Ahópovo*), also *Chapukuran*-speaking Indians, were, until a few years ago, masters of the headwaters of the Jamary and Candeias Rivers, and of the Massangana River, a tributary of the former, all of which are right tributaries of the upper Madeira River. When discovered by Rondon, the last 60 *Arikême* who survived were distributed in four villages.

Each *Arikême* village consisted of two dwelling houses and an ossuary hut or temple. Huts were constructed in the form of low vaults, somewhat like an upturned clam valve, the curve of the ridge-pole and of the walls being obtained by bending poles across a central rectangular framework.

The *Arikême* cultivated manioc, which they grated on a rough piece of paxiubinha bark. They ground maize in elongated wooden troughs, with a semicircular wooden slab.

Men wore feathers and wooden plugs through holes in their ears and cotton bands around their ankles. They tied fibers on the end of their long hair. Necklaces were strung with river shells and were trimmed with feather tassels.

The *Arikême* spun cotton and manufactured hammocks. Their bows had a semicircular cross section and were decorated at the grip with an artistic cotton wrapping. Arrow feathering was of the *Arara* type.

The most remarkable *Arikême* cultural feature was the ossuary or temple in which they kept the bones of some famous chief. The skeleton was enclosed in a bark-cloth bag, but the skull was placed in a special three-legged basket that was trimmed with feathers. These relics were decorated with feathers and shells and hung in a hammock, under a jaguar skin. Gourd dippers with trimmed handles, polished stones, stone axes with a hole through the butt, and labrets

made of resin—the last probably were war trophies—were stored near the roof of the temple. Bundles of arrows, captured from other tribes, were leaned against the walls. Some other baskets contained charred human bones.

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PARESSI

HISTORY

The *Paressí* like the *Mojo* and *Bauré*, were *Arawakan* Indians but lexicographic comparisons seem to show differences in their respective dialects that are explainable only if we suppose that the *Paressí* migrated from the north of the Amazon to their present territory later than the *Mojo*. Their name is connected with the first attempts to discover the Mojos region, when the "*Pareti*" Indians were alleged to visit the fabulous kingdom of Mojos to fish for pearls and to collect precious stones (Relación del Padre Diego Felipe de Alcaya, Maurtua, 1906, vol. 9, p. 136). In one of the reports of the Gonzalo Solís Holguín's expedition, a witness says that information on the *Mojo* was gathered by "some Spaniards who 32 years ago [that is, in 1600] went to the country of other Indians called '*Pareches*' who live more toward the east." There "they discovered lands and provinces with a cold climate and saw large cordilleras and mountains which rose in the middle of that country" (Maurtua, 1906, vol. 9, pp. 153, 155). These mountains are without any doubt the Serra do Norte and the Serra dos Parecís.

The first ethnographic description of the *Paressí* dates from 1723. The slaver, Captain Antonio Pires de Compos, gives us a first hand account of the "reino" or kingdom of the *Paressí*. His ethnographic data will be included in our cultural summary. Pires is also one of the first to mention the *Kabishi* or *Cavihi* Indians, who are now known as the *Nambikuára*. The *Mahibarez* Indians, who lived north of the *Paressí*, had, according to Pires, more or less the same culture as the latter and spoke a language closely related to *Paressí*.

During the entire eighteenth century, the *Paressí* region was crossed by slavers and by all kinds of adventurers in search of gold or diamond mines.

In 1848, according to the "Directoria do Indios" of Cuyaba, quoted by Karl von den Steinen (1894, p. 426), there were between 200 and 250 *Paressí* in the "Campos dos Parecís," in the districts of Diamantino and Matto Grosso. At that time as well as later, the *Paressí* traded baskets, feathers, and gourds for European goods. In an article writ-

ten about 1913, Rondon lists the names of 203 *Paressí* who seem to have represented the bulk of the tribe. They lived in 8 malocas or villages. Some others were reported in settlements not visited by Rondon.

TRIBAL DIVISIONS

The *Paressí* (*Arití*) were divided into four subgroups: 1, The *Kaxi-nití*, scattered along the Sumidouro River, a tributary of the Arinos River, and around the headwaters of the Sepotuba and Sacuriú-iná Rivers; 2, the *Uaimaré*, living along the Rio Verde and the Timalatiá (Sacre) River; 3, the *Kozáriní*, located near the headwaters of the Júba, Cabacal, Jaurú, Guaporé, Rio Verde, Papagaio, Burity, and Juruena Rivers; 4, the *Irónæ*, who had their settlements on the Cravari River, a tributary of the Timalatiá River, and on the Papagaio and Burity Rivers. Rondon also heard of two other groups, the *Cauári* and the *Uariteré* who lived respectively on the Saue-ruiná and Pimenta Bueno Rivers. The *Kozáriní* were called *Kabishi* by the other *Paressí* and by their neighbors but must not be confused with the "wild *Kabishi*," a name applied to *Nambikuára* of the Serra do Norte and to numerous Indians of the Guaporé River Basin.

The *Kozáriní*, or *Paressí-Kabishi*, described by Max Schmidt (1914), were a mixed tribe formed by a nucleus of *Paressí* invaders who absorbed and assimilated Indians from other tribes, principally the *Nambikuára* (*Guayguakuré*). Even in 1914, the *Paressí-Kabishi* waged merciless warfare against the *Nambikuára*, kidnapping their men for slaves and their women for wives. In Max Schmidt's opinion (1917), the progressive conquest of the region by the *Paressí-Kabishi* illustrates the character of *Arawak* migrations: Through constant warfare, intermarriage, and enslavement, small groups led by powerful personalities imposed the *Arawak* culture and language on people of an entirely different origin. The northern groups of *Paressí*, however, regarded the *Paressí-Kabishi* as an inferior branch of their nation. Some pure blooded *Paressí* were attempting by ruse or by force to establish their predominance over the *Paressí-Kabishi* communities.

SUBSISTENCE

Farming.—In the eighteenth century, when the *Paressí* probably lived somewhat north of their present territory, they had beautiful fields of maize, beans, sweetpotatoes, and pineapples that excited the admiration of explorers. The dry plateaus more recently occupied by the *Paressí* provided only a meager subsistence, because only the areas of thin gallery forests along the rivers were suitable for cultivation. For that reason they migrated very often. The *Paressí-Kabishi* cultivated bitter manioc, sweet manioc, maize (a red and a yellow variety), beans, cara, and cotton.

Wild foods.—The *Paressí* collected many wild fruits, such as cashew nuts, *paneira do campo*, *cocos de kareke*, *tucum*, *guariroba*, *tarumã*, *guapeba*, *jaboticaba*, *maracuja*, etc.

Bee keeping.—The *Paressí* were among the few South American Indians who practiced apiculture. They put a swarm of *jati* (*Trigona jati*) bees in a calabash with two openings, one for the bees, the other for removing the combs. The latter opening was sealed with wax.

Domestication.—That the “tapirage” method of changing the color of the plumage of living birds was familiar to the *Paressí* is apparent from the following passage in Pires de Campos (1862, p. 444) :

They raise ara, parrots, and other birds as we do chickens, and pluck them to apply on their skin pigments which determine the color of the new feathers. They pluck these feathers for their fabrics and again apply pigments to create feathers of several colors and these [fabrics] are so bright and so skillfully made that they look like labyrinths [? ?] and their colors are better than those of European silks.

Modern *Paressí* raised dogs, chickens, pigs, ducks, and a great many tame animals of the forest.

Food preparation.—Meat was roasted on a rectangular *babracot*. Manioc was grated, strained through sieves, and roasted in pottery fire pans. Maize was pounded in large, cylindrical wooden mortars with wooden pestles. Calabashes of all sorts and sizes served as bottles, bowls, and cups.

Hunting.—For many *Paressí* hunting offered difficulties rarely met by other Indians of the tropical forest. Game was rare in the open savannahs and very elusive. The animals most commonly hunted were the deer, the ostriches, the sariema birds (*Dicholophus* or *Microdactylus cristatus*), and the armadillos. *Paressí* hunters generally stalked the game behind screens of leaves and advanced within shooting range, imitating the call of the animal. They also drove the game by setting fire to the prairies. When hunting ostriches, they spared the females during the brooding season.

Fishing.—Little is known about fishing among the *Paressí*. They drugged fish with a creeper, *cipó timbó*, and caught them with hooks. As a rule, fishing was not a profitable activity in a region crossed by rapid streams, as for instance the land of the *Paressí-Kabishi*.

HOUSES

The earliest published account of the *Paressí* emphasizes the density of the population and the great size of the villages, each of which had from 10 to 30 large houses. The environment of the *Paressí-Kabishi*, however, did not permit large concentrations of people at any single place; each settlement had only one or two communal huts and a single clubhouse. Villages were, as a rule, situated at a great distance from

the fields, but were always close to a stream which provided water for household uses and for bathing.

Ancient *Paressí* houses were round and 30 to 40 feet (10 to 13 m.) in diameter (Pires de Campos, 1862, p. 143). The large, dome-shaped, communal thatched house of the more recent *Paressí* had an oval ground plan; the side walls and roof were indistinguishable. The house frame consisted of bent rafters attached to a central ridgepole. At each narrow end was a door. These huts averaged 25 feet (7.6 m.) in length, 18 feet (5.4 m.) in width, and 12 feet (3.6 m.) in height. Each family occupied a space bounded by the rafters. The average number of individuals living in a house was from 30 to 40. Hammocks, generally of cotton but sometimes of tucum fibers, were suspended from the rafters and from extra posts. The latter, which were painted, were held to be animated by spirits that protected the families from thieves.

DRESS

Men went naked, but tucked their penis under a few strings threaded with beads and tied around the waist. Women wore short, cylindrical, cotton skirts, which scarcely covered the lower part of the abdomen. The earliest source on the *Paressí* mentions penis covers and women's skirts covered with feathers. Both sexes wore garters and anklets, the men's of cotton, the women's of rubber. Men wore woven bracelets, reinforced with wooden sticks and feather quills, which may have originated in wrist guards used when shooting bows. Both men and women took pride in owning a great many beads which they displayed on bracelets or on heavy necklaces often suspended crosswise over the chest. The only headdresses were simple feather circlets mounted on a low frame of bamboo strips or tufts of feathers attached to the nape of the neck. Feathers were passed through the perforated septum of the nose and sticks through the ear lobes. Distinctive of an ancient *Paressí* chief was a stone pendant in the shape of a Maltese cross. In former days, both sexes were tattooed, this task being done by women. Favorite motives were straight, undulating, curved, and broken lines applied with thorns and genipa juice on the body, arms, and legs. Max Schmidt saw a woman tattooed from her breasts to her thighs (1914, fig. 28.).

The *Paressí* painted themselves with genipa and rucu, a common pattern being a series of circles or dots.

According to tradition, *Paressí* men were tonsured in ancient days; more recently they cut their hair around the head. Women clipped their hair only across the forehead. Combs consisted of teeth inserted between parallel pieces of bamboo.

TRANSPORTATION

The *Paressí* made only a few dugouts and bark canoes (von den Steinen, 1894, p. 433). They also crossed river buoyed by a bundle of burity stems.

Like the *Mojo*, the *Paressí* were great road builders and connected their villages with broad, straight, and perfectly clean highways.

MANUFACTURES

Basketry.—Circular sieves and concave trays were made with a plain checker weave of bamboo strands. The strands were smooth and brilliant on one side and dull on the other. Reversing the strands while weaving exposed alternate sides and automatically produced geometrical patterns. More complicated diagonal patterns were obtained by using a twilled weave, that is, by passing the weft strands over and under two or more warp strands. The finished basket was smeared with black pigment which, adhering to the rough sides of the strands, caused the design to stand out sharply. The large cylindrical carrying baskets represented a third technique, in which the warp and weft met at right angles and were held in position by extra diagonal strands. Semicircular fire fans were woven of bacába pinnae (*Oenocarpus bacaba*) which were attached along a wooden handle.

Spinning and weaving.—Cotton was the only material used by the *Paressí* for cloth. It was spun in two-ply threads with drop spindles which had whorls of fruit or clay. Fine thread was imported from the country of the northern *Paressí*. Ropes of tucum fibers were twisted on the thigh.

The loom was a perpendicular wooden frame with two horizontal bars. As the warp was wrapped around these bars, the finished piece of cloth, whatever its size, was always an endless ring. The only weaving instrument was a wooden sword used to keep the warp threads open when the weft was passed between them and to beat the weft tightly into place. The use of warp threads of various colors produced simple perpendicular and horizontal stripes which enlivened the appearance of the cloth.

Loincloths, baby slings, and bags were made of the entire circular piece of finished cloth as it was removed from the loom. For other objects, such as armbands and belts, the warp was cut before the textile was completed, so that the ends were always fringed.

Feather work.—The ancient *Paressí* seem to have excelled in making feather fabrics but unfortunately it is not stated whether the feathers composing these mosaics were attached to cloth or to nets.

The mosaics were probably similar to those mentioned among the *Mojo*.²⁴

Pottery.—The only known specimens of *Paressí* ceramics are three crude, greyish pots, each with a round base and more or less straight sides (Schmidt, 1914, figs. 57–59). Clay was tempered with the ashes of the katipé bark and with a ferruginous powder, common in the region.

Weapons.—In 1723 Pires de Campos saw bows and arrows, flat, hardwood swords, and short spears among the *Paressí*. Bows and arrows fell into disuse soon after guns were introduced. The *Paressí-Kabishi* still had a few bows and arrows at the time of Max Schmidt's visit. The bows were more than 5 feet (1.5 m.) long and had a semicircular cross section and shoulders at each end for the three-ply cotton string. There were two kinds of arrows: Those tipped with a long sharp rod, and bird arrows made of simple bamboo stems with the root forming the knobbed head. Arrow feathering consisted of two halved feathers tied against the cambayuva reed shaft and wrapped tightly with cotton, which was smeared over with rosin (Peruvian cemented feathering).

Bows and arrows were, in recent years, retained more as children's toys than as actual weapons of war or hunting, although the *Paressí-Kabishi* were said to use native weapons when engaging in forays against the Whites so that the "wild *Kabishi*" would be blamed. The *Paressí* were acquainted with curare poison which they extracted from the shavings of the bark of a creeper (*Strychnos* sp.). Other ingredients added to the poison had a magical rather than any actual usefulness. Curare was not used in connection with the blowgun but on ordinary hunting arrows.

SOCIAL ORGANIZATION

The political unit of the *Paressí* was the independent village. It was ruled by a hereditary chief, who presided over religious ceremonies and received guests, but shared some of his authority with influential and strong-willed individuals. The chief's eldest son enjoyed some prestige. The heads of monogamous families formed a kind of aristocracy. They controlled a class of dependents, whose status was that of serfs and who had, among other things, to make farm clearings, carry wood to the village, build houses, and give to their masters everything they earned.

The inhabitants of different villages visited one another frequently and maintained active intervillage commercial relations.

²⁴ "Os trajos ordinarios d'este gentio é trazerem os homens uma palhinha nas partes verendas, e as mulheres com suas tipoinhas a meia perna, cujos pannos fazem ellas mesmas de tegume de pennas, e de ricas côres, com muita curiosidade e labores de varias castas e feitios. . ." (Pires de Campos, 1862, p. 444.)

LIFE CYCLE

Birth.—When a woman delivered a child, she kneeled, supported by the embrace of her mother. Until the infant's navel cord dropped off, both parents remained at home, the father eating only manioc wafers. When the child was 3 years old, it received the name of one of its grandparents.

Marriage.—Monogamy prevailed in recent times, but sororal polygyny was common formerly. Small children were often betrothed to each other by their parents. Sometimes a grown man reared a girl from childhood and married her when she reached puberty. A bridegroom made a small present to his bride's parents, who brought the girl to his hammock. Residence was customarily matrilineal, except for chiefs who were privileged to take their wives to their own homes.

Death.—The dead were buried in their huts with food and all their possessions, their heads turned toward the east. Relatives of the deceased remained indoors for 6 days, observing a rigorous fast. On the seventh day, they rubbed their bodies with a plant juice mixed with rucu. The house was abandoned temporarily or permanently.

The souls of the dead were believed to travel to heaven but on the way had to avoid being destroyed by a large, doglike monster and being burned. In heaven, they were received by Waikomóné and his three brothers, who painted and dressed them as if for a feast.

ESTHETIC AND RECREATIONAL ACTIVITIES

Art.—Calabashes, dancing sticks, and house posts were decorated with geometrical or realistic designs. The geometrical patterns consisted of straight or undulating lines, series of dots, triangles, hooks, rows of lozenges, T-shaped motives, and others. Simple zig-zag lines were called "Male Serpent spirit"; groups of lozenges represented the "Female Serpent spirit." As a rule, however, these design elements were combined according to the fancy of the artist and seem to have lacked any symbolic or other significance. The realistic decorations were black silhouettes of men and animals. Apparently, there was seldom any attempt to depict a scene. The posts supporting a transverse piece of wood, which young men broke with their backs during tests of strength, were covered with symbolic paintings, some realistic, others geometric. These were more or less conventionalized representations of the moon, spirits, alligators, and so on. The motives were haphazardly combined and cannot be regarded as true pictographs.

Musical instruments.—Most musical instruments, being extremely sacred, were always kept in the clubhouse safe from the eyes of women. Yararaka, a spirit, was symbolized by a trumpet formed of

two parts, a tube and a resonator or bell. The end of the tube was slit to vibrate when air was blown into it. Yararaka's wife was represented by a plug flute with four stops. Men imitated the spirit's voice by speaking into a tube, the thin walls of which were slashed. This was not so much a musical instrument as a "tone coloring instrument, somewhat like our mirlitones" (Izikowitz, 1935, p. 255). The sight of this loudspeaker was also taboo to women. Resonator whistles or flutes, made of two halves of calabashes and blown with the nose, were also sacred.

Panpipes with five tubes held together by a simple ligature, were profane instruments. Neither these nor gourd rattles were kept in the men's club or out of sight of women.

Dancers wore anklets of fruit shells.

Games.—The *Paressí*, like the *Mojo*, played a ball game with their heads. The hollow, rubber ball was 8 inches (20 cm.) in diameter. The players were divided into two teams and the ball was placed on the ground on top of a heap of sand. One player ran forward, threw himself flat on the ground, and butted the ball toward the opposing side. The first butt never lifted the ball very high and it rolled and bounded toward the opponents, one of whom threw himself flat on his face and butted the ball back. After this, the ball flew sufficiently high for the players to toss it with their heads. A score was made by one team when the opponents missed the ball and allowed it to fall to the ground. The main rule was that the ball should never be touched with the hands or feet or with any part of the body except the top of the head (Roosevelt, 1914, pp. 198-199).

In a contest of strength, young men used their backs to break a transverse wooden bar passed through two perpendicular posts.

Children's games included walking on stilts and throwing feathered shuttlecocks.

Dances.—Ceremonial dancing was restricted to men while women remained shut in the huts. Women, however, might join profane dances. Roosevelt saw a ceremonial dance in which men, carrying pipes and trumpets, "circled slowly round and round, chanting and stamping their feet, while the anklet rattles clattered and the pipes droned. They advanced to the wall of one of the houses, again and again chanting and bowing before it; (this was a demand for drink). . . . They entered one house and danced in a ring around the cooking fire in the middle of the earth floor." Roosevelt was told that "they were reciting the deeds of mighty hunters and describing how they brought in the game" (1914, p. 206).

Von den Steinen (1894, p. 433) witnessed a dance in which groups of three men, holding each other, walked back and forth, while two men of each group played the panpipe and the third stamped the ground to mark the rhythm.

In the zulaní dance, one man started to sing and was followed by a choir. The music of the rolúta dance consisted of long drawn tunes produced with flutes which at first seemed to be played far away. The walarosö dance was performed to the sound of flutes and rattles. Dances were led by the chiefs, who were given the title of kahuáritihe.

Drinks.—The *Paressí* prepared maize or manioc chicha in a large wooden trough. They boiled the mass and added chewed maize flour or manioc cakes (beijú) and an infusion of palm fruits. The main feasts, involving drinking and dancing, took place in October and April.

RELIGION

Diffuse animism appears to be one of the main features of the religious concepts of the *Paressí*. They feared a great many spirits living in the rivers and woods. The most important diety of the *Paressí-Kabishi* was the Serpent Spirit, Nukaima, and his wife. The men's club was his temple, where he and his wife were represented by musical instruments. According to Pires de Campos (1862, p. 443) the ancient *Paressí* had special huts in which they kept terrifying "idols" and trumpets which belonged to these dieties. Women were not permitted to enter the sacred huts where the men assembled in their best outfits to dance and drink.

An unshaped piece of wood, called Iôhôhô, was, according to Roquette-Pinto, one of the main sacred objects. When it was old and eaten by insects, a shaman and his assistant went to the forest to get another log, which they carried home while chanting a monotonous duet that women were forbidden to hear.

Drinking bouts were celebrated in honor of the Serpent God. At dusk on the day before the feast, beer was sent into the club, where it was received with a curious yell produced in the throat. Men began the feast by beating the doors and roofs of the communal houses with whips to notify the occupants that the Serpent Spirits were thirsty and that their anger could be appeased only by offerings of beer. Two dancers, holding the musical instrument symbolizing the spirits, stamped on the ground in front of the house while other participants sang in deep voices to its rhythm. The chief came out by the back door and gave the dancers large quantities of a mildly intoxicating manioc or maize beer, which the women had

made. Women remained shut inside the dwelling houses during the entire ceremony.

The Serpent Spirits also demanded meat. Large portions of game were set aside and roasted as offerings for spirits, but actually were eaten by the men in the clubhouse, where they received the food with deep roars.

Occasionally purely lay dances were performed to the accompaniment of profane musical instruments. Groups of three men danced together while blowing their panpipes. Also, choruses sang under the leadership of some man.

Shamanism.—Shamans treated their patients by blowing tobacco smoke on their bodies. They were surrounded by apprentices on whom they imposed solitary retreats into the forests and severe fasting. Shamans knew everything and were familiar with means of reaching the sky. The *Paressí* medicine men had a wide knowledge of herbs and drugs judging from the extensive list of medicinal plants given by Rondon (1913, pp. 15-17).

Sorcerers threw poison at their victims or mixed it in their drinks.

MYTHOLOGY

The first human being was a stone woman, Maisö, who made the earth and caused several rivers to flow from her vagina. Many beings and objects came from her body. Her first son was a stone man, Darúkavaiteré, who, mating with Urahiulú (or Urulahiulú), first produced the sun, the moon, and several constellations, and then procreated several kinds of parrots together with serpents of the same color. For instance, the blue arara, that had a human face, appeared at the same time as the "blue arara serpents." Maisö, concerned by the successive births of parrots and serpents, made magic on Urahiulú, who finally conceived the first *Paressí*, the hairy Uazale, with a tail and a membrane between his arms and legs.

The other children of Darúkavaiteré and Urahiulú were the ancestors of the several *Paressí* subtribes and even of the Portuguese.

Uazale was a true culture hero. He discovered manioc in the forest and created cotton by planting his hair. Tobacco grew from the body of a child that he buried. When Uazale wanted to kill his children, they ran away into the forest, which they accidentally set on fire. Several valuable plants later grew from the various parts of their charred bodies.

Tschenikauré, brother of Uazale, was the "big jaguar" that devoured Kamazú, the ancestor of the *Paressí-Kabishi*. Waikomóné, Kamazú's son, killed the jaguar. The jaguar's arrows were changed into *Bakairi* Indians. All the Indians who were hostile to the *Paressí* were believed to be members of the family of the mythical jaguar.

In *Paressí* mythology, Waikomóné was second in importance only to Uazale. Waikomóné and his three brothers received the souls of the dead when they reached heaven. Waikomóné had a son, whom he created magically of leaves, and who was the husband of all the women who came to heaven.

In another version of the same creation myth (Roquette-Pinto, 1938, p. 133), the Supreme Being, Enôrê, carved the first man and woman out of a piece of wood. This couple had four children, two boys, Zalúîê and Kamáikôrê, and two girls, Hôhólaiâlô and Uhaúuarirú. When Enôrê divided all the good things of the world among his children, Zalúîê refused to accept guns because they were too heavy and horses and cattle because they would soil the plaza of his village. He departed with bows and arrows. Kamáikôrê accepted the things his brother refused and his descendants have become prosperous and powerful.

Maize sprouted from the grave of a big chief, Ainotare. Manioc originated from the body of a girl who, despised by her father, asked her mother to bury her alive in the forest.

LORE AND LEARNING

The sun was a ball of red arara feathers and the moon a ball of yellow mutum feathers. Each belonged to a different master who stored it away when it was not to be seen. Eclipses of the moon were said to be caused by a spider who gnawed the moon's edge and by four armadillos who hid its disk. Constellations were described as various kinds of animals: A jaguar devouring a deer, a sariema bird, and others. A black hole over the Southern Cross was said to be an ostrich. The Milky Way was a path covered with kutá fruits.

LITERATURE

Rondon (1913, pp. 40-42) gives the texts of four *Paressí* songs; they are very short pieces; the first describes the meeting with a spirit, the "Father of the bush," the second tells us of the killing of a man, the third speaks of the pleasures of dancing and drinking, and the last commemorates a battle.

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1. Combat between Yurakare Indians, Bolivia. (After D'Orbigny.)



2. Thatched house and dance of Yurakare Indians, Bolivia. (After D'Orbigny.)



1. Costumes of Guarayú Indians, Bolivia. (After D'Orbigny.)



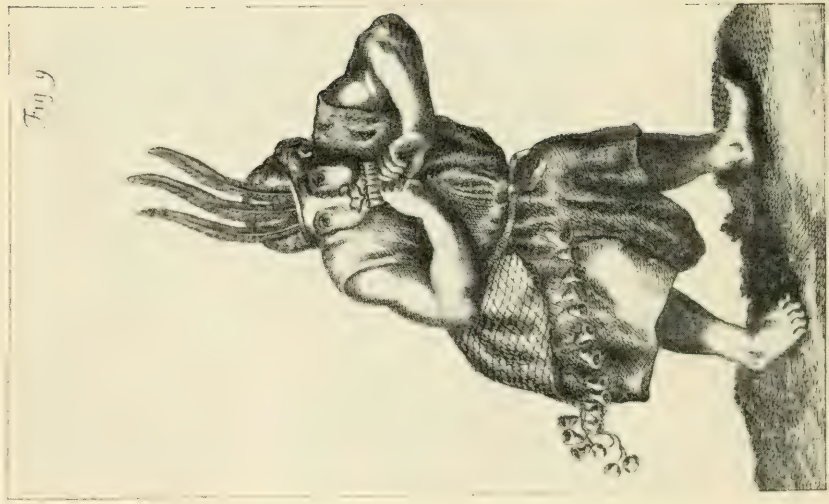
2. Indians of the Province of Chiquitos, Bolivia. (After D'Orbigny.)



1. Fishing with the Covo, Mojo Indian.
(After Keller-Leuzinger.)



2. Mojo Indian, from the ancient mission of Trinidad, dancing before the altar on a Holy Day.
(After Keller-Leuzinger.)



1. Mojo Indian playing panpipe and wearing a net with jingles. (After Eder.)



2. Mojo Indian. (After Eder.)



1. Tiboita Indian spear thrower of the region of Mojos, showing cranial deformation. (After Eder.)



2. Costumes of the Mojo Indians. (After D'Orbigny.)



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