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THE TROPICAL FOREST TRIBES

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TRIBES OF THE EASTERN SLOPES OF THE BOLIVIAN ANDES

By ALFRED MÉTRAUX

INTRODUCTION

Five tribes live along the slopes of the Bolivian Cordillera from the Argentine border to Perú: The *Chiriguano*, the *Yuracare*, the *Mosetene* and *Chimane*, the *Leco*, and the *Tacana*. The *Chiriguano* belong to the *Tupí-Guaraní* group; the *Yuracare*, *Leco*, and *Tacana* represent still isolated linguistic families. The *Mosetene* and *Chimane* form a single linguistic group.

CHIRIGUANO AND CHANE

HISTORY

The *Chiriguano* (*Ava Chahuanco*) (map 1, No. 3; map 2; map 8, No. 5) are the descendants of the *Guaraní* who in historic times migrated from Paraguay and crossed the plains of the Chaco in successive waves to settle along the foothills of the Andes from the upper Pilcomayo River to the upper Rio Grande (Guapay River). (Lat. 18°–23° S., long. 63°–64° W.) Seven migrations are alluded to in historical documents.

The first migration (1471 or 1476), reported by Garcilaso de la Vega, took place during the last year of the reign of Inca Yupanqui. Another, between 1513 and 1518, can be surmised from the testimony of a *Guaraní* Indian who spoke to Alvar Nuñez Cabeza de Vaca. A *Chané* Indian captured by the *Guaraní* and brought to Itati told Domingo de Irala in 1542 of a third migration, between 1519 and 1523, which probably came after the 1513–18 invasion and certainly before that in which Alejo García took part. The *Guaraní* migration described by Diego Felipe de Alcaya, curate of Mataka, may perhaps be this third one, though many details are certainly fanciful. According to Gandía (1935 a, p. 24), this was the migratory shift which took the *Guaraní* from the region of Itati to the Province of Santa Cruz and which contributed to the formation of the *Guarayú-Pauserna* tribe.

The fourth *Guaraní* invasion, about which we have the most complete information, occurred between 1521 and 1526. It is famous because a few White men, shipwrecked sailors of the Solís armada, accompanied the invading Indians. One of them, Alejo García, seems to have played a conspicuous part in this migration, although Díaz de Guzmán's (1914, 9:26–30) statement that García was the organizer of the raid may be doubted. With a strong force of *Guaraní* he crossed the Chaco, probably at lat. 13° S., and invaded the borderlands of the *Inca* Empire. The raiders advanced as far as Presto to the northeast and Tarabuco to the southeast of Sucre. Fearing a victorious return of the *Charcas* (*Chicha*), the invaders retreated, carrying their booty. On reaching Paraguay, with *Chané* and *Tarapecosi* (*Chiquito*), Alejo

García was killed by the *Guaraní*. The historical character of Alejo García's expedition is amply proved by several passages in documents of the Conquest of Paraguay, mainly in the "Comentarios" of Alvar Nuñez Cabeza de Vaca (Hernández, Pedro, 1852, pp. 579-580). The success of this raid prompted many more *Guaraní* to migrate westward. Those from the Río Paraná followed the Pilcomayo River. Those from the region of Asunción entered the Chaco north of that city. The Indians of Jeruquisaba and Carayzopera, that is to say of the country of Itatí, entered the Chaco near San Fernando (lat. 20° S.). According to Díaz de Guzmán, these Indians were the ancestors of the *Guarayú* or *Itatines*, who lived 90 miles (30 leagues) from Santa Cruz.

In a letter written by Martín González from Asunción in 1556, there is the following passage which confirms the continuous migration of the *Guaraní* toward the Andes: "These Indians [the *Guaraní*] go and come back from the lands of Perú. As they have no roads and avoid their enemies, they reconnoiter the land ahead of them, settle long enough to sow crops and harvest their food, and go on. So went those who for long had been settled in the Peruvian sierras and those who go today to meet the Christians.

"In Asunción are many Indians who with their wives and children have gone there two or three times from opposite that city, along a river [the Pilcomayo] that flows 2 leagues from here and comes from the city of La Plata. The Indians from Paraguay have settled by that river and along the Cordillera, over a space of 100 leagues. Some *Cario* [*Guaraní*] have gone to the mountains along another river, 42 leagues down the Paraguay River, which is called the Ypití [Bermejo River]. *Cario* are established in the mountains near the Ypití River, which also leads, according to what those who came from Perú say, to the city of La Plata." (Quoted by Gandía, 1935 a, p. 37.)

Several thousand *Guaraní*, serving as auxiliaries and porters, accompanied Domingo de Irala and Nuflo de Chaves on their expeditions from Paraguay to the foothills of the Andes. It is historically attested that the 2,000 or 3,000 *Guaraní* of Itatí who followed Nuflo de Chaves in 1564 were in part the ancestors of the modern *Guarayú-Pauserna*.

The *Guaraní* not only invaded and conquered the foothills of the Andes from the upper Bermejo River to Santa Cruz de la Sierra, but certain groups went even farther to the north and settled near the border of the *Mojo* and *Bauré* country. The *Pitaquari* (*Piritaguari*) were a *Guaraní* group established in the Sierras de Chiquitos, north of the first Santa Cruz. There were also *Chiriguano* around the town of San Francisco Alfaro in the Province of Chiquitos, near the Jesuit mission of San Xavier.

The *Guaraní* invasions, which started as plundering raids along the *Inca* frontier, were prompted by the desire to obtain gold and silver ornaments and copper tools from the *Caracara* (*Charcas*, *Chicha*) and from the *Chané* of the foothills, who were amply provided with these metals. Probably metal objects first reached the *Guaraní* of Paraguay through the *Chané*, whose villages were scattered across the Chaco from the Andes to the upper Paraguay River. Although the prospect of rich loot was certainly the predominant cause of their invasions, the old *Guaraní* dream of a land of immortality and abundance, the abode of the Great Ancestor, also may have played some part in determining their migrations.

The *Guaraní* finally became such a threat to the *Quechua* towns of the Province of Charcas that an *Inca* Emperor, probably Huayna Capac, built fortresses at Samaypata (Savaypata), Saigpuru, and Guanacopampa to halt their inroads. Sarmiento de Gamboa (1906, p. 105) speaks of Huayna Capac's wars against the *Chiriguano*, of the *Chiriguano's* capture of the fortress of Cuzcotuyo (probably Incahuasi), and their defeat by Huayna Capac's general, Yasca. The ruins of these

Inca fortresses were visited by Nordenskiöld (1915 a, 1924 a), who described them under the names of *Incallacta* and *Incahuasi*. They bear witness to the accuracy of the various traditions concerning the *Guarani* invasions, recorded by the chroniclers of Perú and of the Rio de la Plata.

Along the Andes, the *Chiriguano* found a peaceful *Arawakan* population, the *Chané*, a branch of the *Chaná* or *Guana* tribe, which occupied the northern part of the Chaco along the Paraguay River. The western *Chané*, after centuries of close contact with the Andean cultures, had been deeply influenced by them. They dressed like their neighbors, the Andean *Chicha*, produced a pottery which resembled that of Southern Bolivia and of the valley of Humahuaca, wore metal ornaments, and used metal tools. The *Chané* fell easy prey to the *Guarani*, who slaughtered and ate many of them and reduced the remaining population to a condition of serfdom. The *Guarani* invaders, having brought few of their own women, however, took *Chané* wives. The fusion of these two tribes produced a civilization in which Andean, *Guarani*, and some *Arawak* features were intimately blended. The *Chané* did not entirely lose their identity, however, for along the Parapetí River, in the Caipipendí Valley, on the Itiyuro River, and in the Province of Salta (Argentine), *Chané* villages survived under their own chiefs. But even these have adopted the *Guarani* language and today cannot be distinguished from their conquerors. The *Chiriguano*, nevertheless, consider the *Chané* somewhat inferior, while the latter remember the forays and cannibalistic habits of their former masters. The *Chané* language, probably extinct now, was spoken by a few persons as late as 1908.

The number of *Chané* is said to have greatly exceeded that of the *Guarani* invaders. They extended from the Rio Grande (Guapay River) to the Argentine along the foothills of the Andes. At the beginning of the 17th century, according to Ruy Díaz de Guzmán, in the region of Machareti, 400 *Chiriguano* ruled over 5,000 *Chané*; in Charagua, 350 *Chiriguano* owned 4,000 *Chané* serfs; and on the Guapay River, 200 *Chiriguano* kept 1,000 *Chané* in subjection.

The first White settlement in the land of the *Chiriguano* was the ephemeral town of Santo Domingo de la Nueva Rioja, founded in 1564 on the upper Parapetí (Cordorillo) River by Manso and destroyed a short time later by the *Chiriguano*. In 1571 the *Chiriguano* attacked the *Chicha* and the natives of the Provinces of Condorillo and Barranca. To punish them for their "arrogance," the Viceroy of Perú, Francisco de Toledo, led an expedition against them. The Indians avoided battle and harassed the troops of the Viceroy until he was obliged to retreat in shameful defeat (1574). San Lorenzo de la Frontera, which became the modern Santa Cruz de la Sierra, was founded primarily to keep the *Chiriguano* at bay.

The first attempt to convert the *Chiriguano* to Christianity was made in 1609, when two Franciscans, Agustín Sabio and Francisco Gonzalez, built a church in the valley of Salinas, but the reduction was soon abandoned because of Indian opposition. The Jesuit fathers founded a college in Tarija in 1690 and undertook the spiritual conquest of the *Chiriguano*. In 1691, Father Arce founded a mission in the valley of Tariquea, which lasted only 3 years; another mission, established on the Guapay River by Fathers Zea and Centeno, met the same fate. At the beginning of the 18th century, the Dominicans founded three missions in the valley of Chiquiacá, Nuestra Señora del Rosario, San Miguel, and Santa Rosa, while the Augustines formed the Mission of Santa Clara in the valley of Salinas. In 1715, the Jesuits reestablished their ancient mission of Tariquea. In 1727, all the missions in the *Chiriguano* country were destroyed by the rebellion of the chief, Aruma, and his followers, who feared being taken into slavery. The revolt was crushed by an armed expedition sent from Santa Cruz and composed of Spaniards, "tame" *Chiriguano*, and *Chiquito* auxiliary troops. The *Chiriguano* had been aroused against the missions by the fear of being taken into slavery.

In 1732, the conversion of the *Chiriguano* was entrusted again to the Jesuits. Fathers Julian Lizardi, José Pons, and Ignacio Chomé entered the southern part of the *Chiriguano* territory and founded the missions of Concepción and Rosario in the valley of Salinas. About the same time, the Franciscans built a missionary center in Tarija and in 1757 they sent missionaries to the *Chiriguano*. In 1767, they reestablished the mission of the Purísima Concepción de Pilipili. After the expulsion of the Jesuits in 1767, the Franciscans continued their work with great success. Between that time and the end of the 18th century, the Franciscans founded many new missions north of the Guapay River (Rio Grande): Abapo, Mazabi, Cabezas, Piray, Igmiri, Tacurú, Iti, Parapetí, Itau, Tapera, Iguirapucuti, Tacuaremboti, Piriti, and Obaig. Some of these were annihilated when the Indians rose in arms in 1796 and 1799. During the war of independence, the Franciscan missions were completely abandoned. In 1845, the Franciscans resumed the conversion of the *Chiriguano*, and built a series of new missions from Itau to the Parapetí River. The more important of these were San Francisco, Tarairi, Machareti, Santa Rosa, San Antonio de Huacaya, Ivu, and San Francisco del Parapetí. In 1886, a messiah called the *Chiriguano* to arms against the Bolivians by assuring the Indians that they had nothing to fear because their oppressors' guns would only "spit water." The messiah and his followers were defeated near Cuevo.

In 1929, the last missions were secularized, and the *Chiriguano* lost the protection of the Franciscans. Many of them migrated to the Argentine where they were employed as skilled workers in the sugar factories. The Chaco war spread havoc in the *Chiriguano* villages at the foot of the Andes. The *Chané* of the Parapetí River then put themselves under the protection of the Paraguayan army, and today they live around the fort of Toledo, intermarrying with Paraguayans, whom they consider to be their kinsmen, "because of the close relationship between both *Guaraní* dialects." These *Chané* are sometimes erroneously designated as "*Guarayos*."

The 16th- and 17th-century chroniclers estimated the *Chiriguano* population at only a few thousand, exclusive of their *Chané* vassals. In 1810, there were 23,936 *Chiriguano* in the Franciscan missions. This figure includes only half the *Chiriguano* tribe, as the pagan members south of the Parapetí River were not reckoned. Cardús (1886, p. 242) gives the following estimate of the *Chiriguano* during the second half of the 19th century: In the province of Acero, 18,000; in the Cordillera and in the region of Izozo, 20,000; in the Chaco, from 5,000 to 6,000. Of these, only 8,000 were baptized and 3,187 lived under missionary care. In 1928, the total *Chiriguano* population was said to be 20,000. Today, after the Chaco war and constant migrations to the Argentine, their number must be greatly reduced.

ARCHEOLOGY

Few archeological finds were made in the region occupied by the *Chiriguano*. Nordenskiöld (1924 a, p. 40) mentions burial urns and ancient sites on the Parapetí River, and similar burials were discovered at Tarupayu. In some graves the dead were seated and were covered with several inverted bowls piled on one another. These bowls have hollow rims filled with pellets. Nordenskiöld refers also to direct burial in urns which show the characteristic corrugations of the *Chiriguano* and *Guaraní* ware.

At Yumbia, in the Province of Tarija, at the borderline between *Chiriguano* and *Quechua* territory, the present author obtained fragments of pots with hollow rims, an anthropomorphic vessel with ring-shaped body covered with a red slip, and a specimen of beautiful stone panpipes with

typical *Inca* designs. At Caipipendi (pl. 41, *top, right*), near Charagua, he found a *Chiriguano* cemetery consisting of large, corrugated urns, identical to modern *Chiriguano* chicha jars, covered with smaller jars. Near the surface was found a vessel with incised decoration which has no resemblance to any modern *Chiriguano* ware. The same site yielded a small pot with thin incisions and two suspension holes.

SOURCES

Short descriptions of the *Chiriguano* appear in the early literature. Garcilaso de la Vega's picture of *Chiriguano* culture is on the whole quite inaccurate, but for a few details. Díaz de Guzmán (1914), Barco Centenera (1836, 1912), and Lizárraga (1909) speak briefly of *Chiriguano* culture, but the earliest firsthand account of it is Father Chomé's letter (1819 b). Tamajuncosa's report (1910) about the state of the missions at the end of the 18th century is also an interesting document. Weddel (1853), who visited the *Chiriguano* in the middle of the last century, published a few notes about their culture. The best sources are the reports and books written by the Franciscan missionaries, Cardús (1886), Corrado (1884), and especially Campana (1902). Nino's (1912) much-quoted book is based in great part on Campana's monograph.

Nordenskiöld dedicates several chapters of his "Indianerleben" (1912) and of "Forschungen und Abenteuer" (1924 a) to the *Chiriguano* and *Chané*. His data are accurate though somewhat superficial. Great stress is placed on the economic life and the material culture, but social organization and religion receive only cursory attention. However, the collection of *Chané* and *Chiriguano* myths is fairly large and of great interest. Nordenskiöld made a comparative analysis of *Chiriguano* material culture in one of the volumes of his ethnographical series (Nordenskiöld, 1920). More minute details about *Chiriguano* artifacts may be found in Eric von Rosen's (1924) luxurious publication based on a collection he made among these Indians at the beginning of the century.

Several aspects of *Chiriguano* history and material culture were studied in some detail by the writer (Métraux, 1930 b), who also published new *Chiriguano* myths (1931 a) and two sociological essays (Métraux, 1931 b and 1935).

Several monographs deal with *Chiriguano* pottery, which is today one of the best in South America. (Outes, 1909; Nordenskiöld, 1920; Métraux, 1930 b; Paulotti, 1942.) Recently, Max Schmidt (1938) again published and described *Chiriguano* artifacts and techniques.

Knowledge of *Chiriguano* religious and social life is meager and is limited mainly to Campana's monograph (1902) and to observations made by Nordenskiöld (1912) and the present author (1930 b) at a time when aboriginal *Chiriguano* culture was already decadent. The Paraguayan-Bolivian war accelerated its breakdown and little of it now survives.

The migrations, wars, and the religious conversion of the *Chiriguano* have been the subjects of many historical monographs. The most important of these are by Corrado (1884), Serrano y Sanz (1898), Dominguez (1918), Gandía (1929 a, and b), Métraux (1930 b), Coni (1925), Moreno (1929), and Finot (1939). The Jesuit missionary work among the *Chiriguano* has been described by Lozano (1941) and Muriel (1918).

CULTURE

SUBSISTENCE ACTIVITIES

As today *Chiriguano* and *Chané* share in the same culture, the following data may apply to both tribes.

Farming.—The *Chané*, conquered by the *Chiriguano*, were proficient farmers who, though practicing a tropical type of agriculture, were probably acquainted with many of the methods of cultivation of the Andean area. The *Chiriguano* adopted their traditions. The new habitat of the *Chiriguano* did not offer the same resources for hunting and fishing as had their homeland. Therefore, these Indians depend on farming to a larger extent than any other *Tupí-Guaraní* tribe. The basis of their livelihood is maize, of which they have 11 varieties, all related to those of Paraguay. Then follow in order of importance: Pumpkins, beans (11 varieties), sweet potatoes, sweet manioc, peanuts, and some Barbary figs (*Opuntia* sp.). Sweet potatoes were grown on a large scale by the *Chané* of the Parapetí River.

These Indians also raise cotton, tobacco, urucú, and, in the Parapetí region, reeds for arrow shafts (*Arundo donax*). Plants of the Old World adopted by the *Chiriguano* include melons, watermelons, oranges, sugarcane, and sorghum.

Chiriguano men clear the fields and surround them with a tall fence as a protection against the inroads of wild or domesticated animals, a task which is considered to be particularly strenuous. They also till the soil, but at harvest time they are assisted by the women and children. The latter, armed with slings, drive away the parakeets and other birds which prey on the crops. Nordenskiöld (1912, p. 183) observed that among the *Chané* of the Itiyuro region, large maize fields were tended by men while pumpkins and beans were raised by the women.

Collecting wild food.—When their crops fail, the *Chiriguano* subsist on the same species of pods and fruits as those collected by the Chaco Indians: Algarrobo, tusca, mistol, caraguatá, and other plant foods.

Hunting.—Hunting is a very secondary economic activity, at least in modern times. Peccaries, which are the main game animal, are hunted with specially trained dogs and killed with bows and arrows or with clubs. Rheas, which are abundant in the Chaco plains, are caught with bolas. Pigeons are captured with clap nets. Special arrows with two points are used for hunting yacu birds (*Penelope* sp.).

Fishing.—Fishing is worth while only for those *Chiriguano* and *Chané* who live along the upper Pilcomayo or Bermejo Rivers and, to lesser extent, for the *Chané* of the Parapetí and Itiyuro Rivers. Methods of fishing vary somewhat with the regions. Along the Pilcomayo River, fish are caught with iron hooks, with dipnets, similar to those of the Chaco Indians, with the bow and arrow, and with long two-pronged spears. Fishing baskets are used in combination with stone dams (fig. 57).

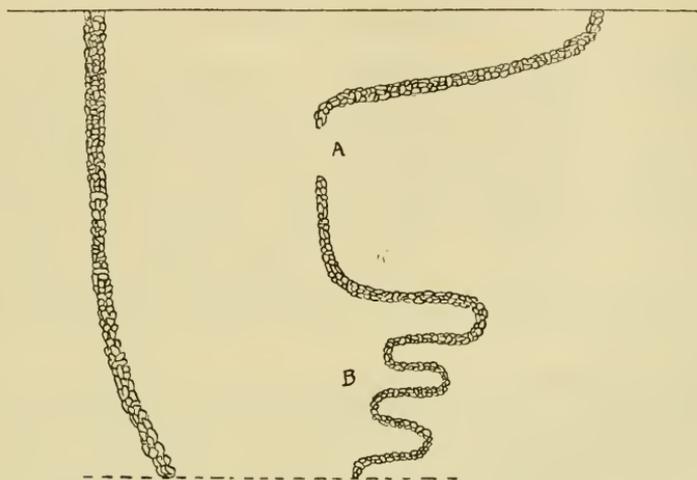


FIGURE 57.—*Chiriguano* fish dam in the Pilcomayo River. *A* is entrance; *B* are pockets where fish are caught. (Redrawn from Nordenskiöld, 1920, fig. 14.)

Among the *Chané* of the Itiyuro, fishing is done almost exclusively by women and children. They use hooks, but more often they capture fish in small ponds which they cut from the main stream by means of weirs. They also catch small fish in narrow-necked gourds into which they place chicha dregs as a bait. The *Chané* of the Parapetí scoop fish with nets or shoot them with arrows tipped with a bundle of cactus thorns (Nordenskiöld, 1912, pp. 184–185).

Domesticated animals.—Modern *Chiriguano* raise sheep, cattle, horses, and chickens. Their dogs are so completely mongrel that their European or Indian origin cannot be ascertained. The *Chiriguano* were probably acquainted with chickens when they arrived in their present territory, for they use a *Guarani* term for them. Pets are not numerous in their villages; most of them are parrots which were captured by means of a noose attached to the end of a long pole. In order to approach the wild birds, the Indians use tame parrots and decoys.

Cooking.—Maize is prepared in a great many ways. The grains are eaten on the cob, roasted in special pans, boiled in water, or ground into flour, which is served with every meal. One method of preparing maize flour is to steam it in a perforated bowl.

Chiriguano mortars are of the cylindrical type; the pestle is long and heavy. Maize flour is sifted in round basket sieves very similar to those used in the rest of tropical South America. Meat is boiled or broiled on a spit; the babracot is conspicuously absent. Food is served in clay bowls and more rarely in wooden dishes, and eaten with wooden spoons. Salt is extracted from mines near San Luís, or obtained by evaporating the water of salty brooks.

VILLAGES AND HOUSES

Dwellings.—Until the 17th century, the *Chiriguano* built large communal houses, "150 feet [46 m.] long," in which many families lived together, each occupying the space between two wall posts (Lizárraga, 1909, p. 552). A hundred years later they were lodged, as they are now, in small rectangular houses, with a steep gable roof and wattle-and-daub walls. Sometimes the roof projects in front to form a small veranda. A house belongs either to a single biological family or to two or three closely related families, generally parents with their married children.

The ancient villages were composed of three to five long houses, grouped around the plaza. Modern villages also have a central plaza. A storehouse is built on piles near each dwelling and serves to protect crops against rats and dampness. Like the settlements of their Paraguayan ancestors, some ancient *Chiriguano* villages were protected by a single or double palisade.

Household furniture.—The *Chiriguano* sleep on platform beds of reeds and use their woolen or cotton hammocks to recline on during the day or as cradles for babies. The typical *Chiriguano* hammock is made of long warp threads twined together at set intervals by weft strands; a few caraguatá specimens are made in a net technique. Other items of furniture are benches carved of a single piece of wood, large vessels to store clothes and food, and crude shelves hanging from the roof. A tree trunk with three radiating branches serves as supports for vessels or for piles of corn.

DRESS AND ADORNMENT

Clothing.—*Chiriguano* men, wearing only a G string (*chiripá*), were a common sight before shirts and pants came into general use. The cotton tunic (*cushma*), which was adopted from the *Quechua* after the *Chiriguano* migrations, disappeared long ago, but the poncho, a more recent acquisition, is still popular. As early as the 18th century, *Chiriguano* horsemen, in true Spanish style, wore skin breeches and leather coats. They wear sandals when they have to walk over stony ground or through thorny bush.

Chiriguano women still dress in tipoys, a long, sacklike garment, fastened on both shoulders with thorns or sometimes with luxurious silver pins (pl. 42, right). Some tipoys (tiru) are so long that they need to be folded.

Anciently, *Chiriguano* men shaved their foreheads, as did the *Guarani* of Paraguay. At a later period, men and women wore their hair long and carefully groomed it with combs. These were artistically carved from a single piece of wood; some of them were cut into the shape of animals. Men wrapped their hair around the head and kept it in place with a headband.

Women part their hair in the middle and tie it over the neck with a tasseled fillet, or with a ribbon across the forehead.

Body painting.—Both sexes formerly painted their faces and their bodies with urucú. In more recent times, women were content to smear their cheeks with urucú before taking part in a feast. Men stained their teeth black with a special grass.

Ornaments.—The distinctive ornament of the *Chiriguano*, even in modern times, is a tin labret studded with turquoise fragments (pl. 43; fig. 59, e). Originally, labrets were made of rosin, as were those of the *Guarani* of Paraguay. Wooden labrets or a piece of reed inserted in the lower lip remains common among children and also among men too poor to acquire a metal labret. Some of the round tin labrets are more than an inch in diameter without including the flanges which hold them on the inside of the lower lip.

Feather ornaments almost disappeared after the migration and were replaced by typical Andean woven frontlets studded with metal plates. Men hung elongated silver plates from their necks; these ornaments probably originated from small metal tweezers worn in the same fashion (fig. 59, a). The most valued necklaces are composed of turquoise or chrysocolla beads which are traded from the Mestizos of Tarija or taken from the sepulchers of the people who preceded the *Chiriguano* in their habitat. Ordinary necklaces were once strung with shells or seeds, but now consist of glass beads.

Miscellaneous.—The *Chiriguano* have the deserved reputation of being among the cleanest Indians of South America. Men and women bathe several times a day, washing themselves with crushed fruits containing saponin. Soap is in great demand throughout *Chiriguano* territory.

Men depilated their faces and bodies with metal tweezers.

TRANSPORTATION

Boats.—The rivers in *Chiriguano* territory are not suitable for navigation; the only watercraft are crude rafts used to cross the Pilcomayo River.

Carrying devices.—In contrast to other *Guaraní*, the *Chiriguano* do not have basketry knapsacks; women use large carrying nets with a tumpline. Babies are carried in a woven sling, straddling their mother's hip.



FIGURE 58.— *Chiriguano* and *Chané* pottery decorations. (After Métraux, 1930 b, pl. 32.)

MANUFACTURES

Pottery.—*Chiriguano* pottery is, for the beauty of its painted decoration and the variety of its forms, outstanding in modern South America. The mixed origin of *Chiriguano* culture is reflected in the two types of earthenware vessels. The plain pots for cooking and the large jars for chicha, which did not differ from similar vessels of the Paraguayan *Guaraní*, were ornamented with fingernail impressions (pl. 41, bottom, right).

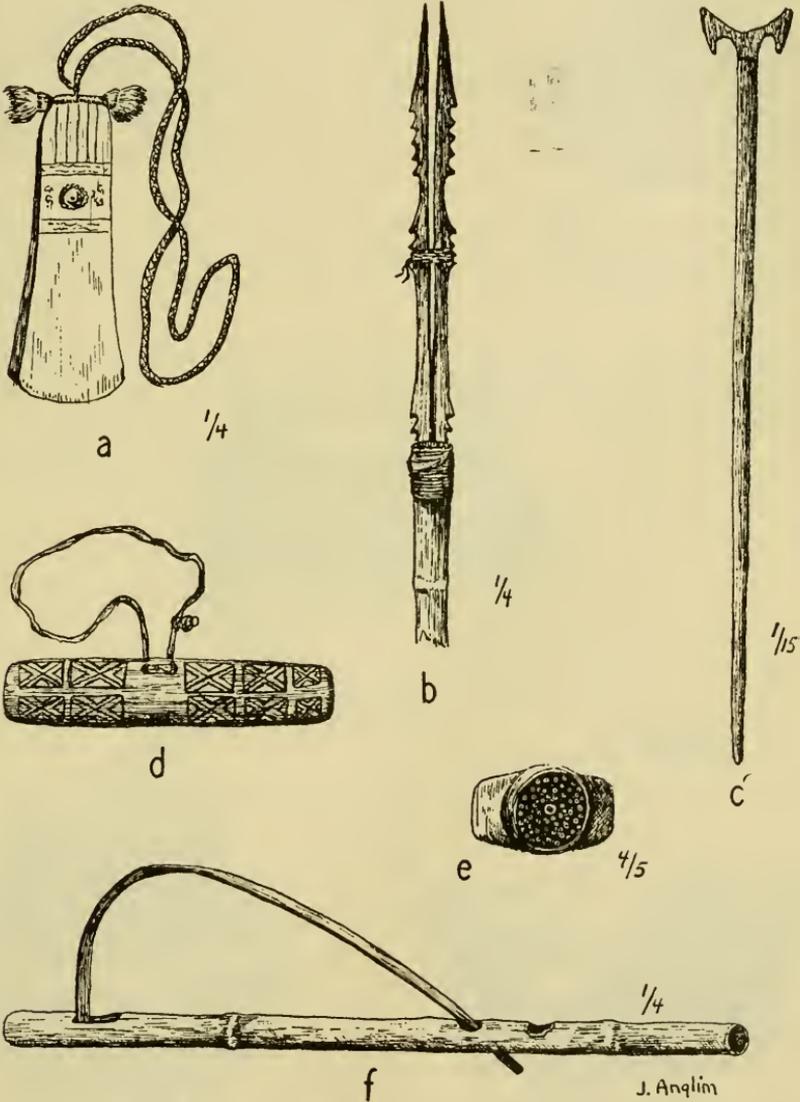


FIGURE 59.—*Chiriguano* and *Chané* manufactures. *a*, Silver pincers used as breast ornaments; *b*, bird arrow point; *c*, handle to wooden spade; *d*, wooden whistle used as ornament; *e*, tin labret with mosaic inlay; *f*, *Chané* pea-shooter. (*a*, *d*, *e*, Redrawn from Rosen, 1924; *b*, *c*, *f*, from Nordenskiöld, 1920, figs. 29, 15, 5, 34.)

The de luxe vases and dishes, typologically related to vessels in the archeological pottery of southern Bolivia and northern Argentina, were decorated with distinctly Andean patterns (figs. 58, 60). The most common vessel is the yambui, a subglobular vase with ears, in which chicha was served. The motifs are mainly geometrical and most of them



J. Anglin

FIGURE 60.—Chiriguano pottery. Specimen at top, right, a Humahuaca archeological specimen included for comparison. (Approximately 1/7 actual size.) (Redrawn from Métraux, 1930 b, fig. 70, pls. 35, 37, 44.)

are based on a triangle surmounted by a scroll, which is multiplied in countless variations.

Women potters (pl. 41, *top, left*, and *bottom, left*) tempered the clay with crushed potsherds and built up their vases by coiling. They painted them with several kinds of ocher and with black obtained from rosin.

Spinning and weaving.—Among the *Chiriguano*, wool is more commonly used than cotton for textiles, but *Chané* fabrics are generally of cotton. The fibers are spun with a drop spindle weighted with a clay whorl (pl. 42, *center*). Although garments are in part Andean in shape, the loom remains of the vertical type. Formerly, indigo was the favorite native dye; today aniline dyes have entirely replaced it. The ornamentation of the fabrics is limited to a few stripes.

Netting.—Fishing nets and carrying nets are made by means of a wooden gage in a reef-knot technique.

Basketry.—Fans, round baskets with overlapping lids, and sieves are twilled with palm leaves in the best Guiana fashion, but wickerwork basketry is very common. No large baskets for carrying or storing food are made.

Gourds.—The painted, incised, or fire-engraved (fig. 61) gourds (*Lagenaria siceraria*) used as cups are, after pottery, the best expressions of *Chiriguano* art. The motifs are mainly geometrical, with occasional realistic representations.

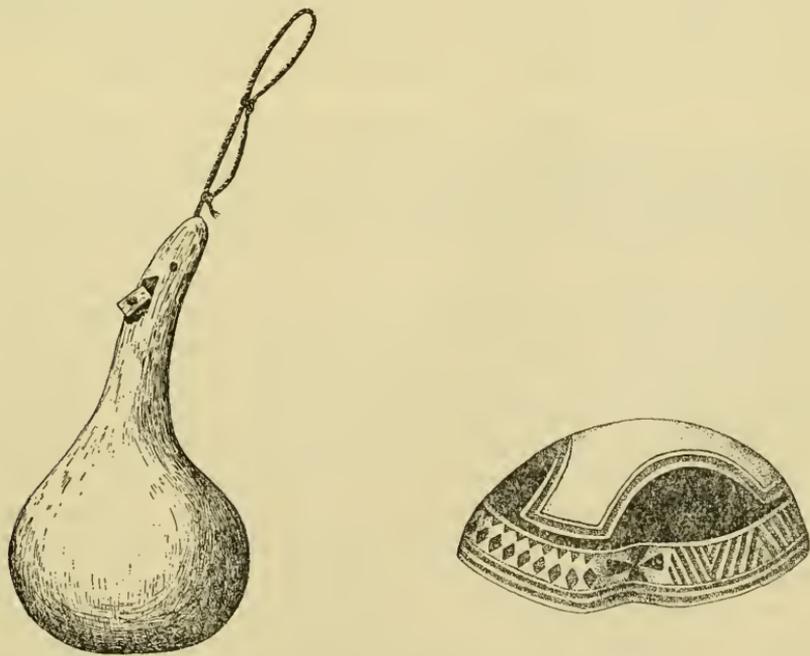


FIGURE 61.—*Chané* calabashes. *Left*: Specimen with lid (approximately $\frac{1}{4}$ actual size). *Right*: Pyrograved specimen (approximately $\frac{1}{3}$ actual size). (Redrawn from Nordenskiöld, 1920, fig. 50 and Métraux, 1930 b, pl. 62.)

Fire.—For several generations the *Chiriguano* and *Chané* have used steel and flint for making fire. The fire drill is, however, remembered in their mythology.

Weapons.—The *Chiriguano* bow has an average length of 4 feet (1.2 m.); the stave is flat on the belly and convex on the back. Both ends are sharpened to prevent the string of twisted hide from slipping.

Arrows are tipped with carefully barbed rods, with two rods barbed along the outer edges, (fig. 59, *b*) with flat lanceolate heads, or with a conical knob (bird arrow). The arrows armed with two diverging rods are used to shoot large birds, such as the yacu (*Penelope* sp.). Fishing arrows of the *Chané* bristle with cactus thorns. Today arrows ending in a sharp wooden rod are rare, as the modern arrows are usually tipped with heavy wires. The shafts are made of cultivated reeds (*Arundo donax*). Formerly, the *Chané* used the uva grass (*Gynerium sagittatum*). Feathering, which is of the cemented type, is sometimes omitted.

The clubs of the *Chiriguano* in the 17th century were short and ended in a flat, oval head, a shape somewhat related to the ancient *Tupinamba* club. These clubs have disappeared (only a single specimen could be obtained in 1929 by Métraux) and have been replaced by simple cudgels that serve only to knock down wild pigs.

Chiriguano in direct contact with the *Quechua* have woolen slings; those living farther to the east have slings made of caraguatá fibers, which they use mainly to chase birds from the fields. The pellet bow is common among the *Chiriguano* and *Chané*, but is merely a toy for boys.

SOCIAL AND POLITICAL ORGANIZATION

Originally, the *Chiriguano* community consisted of a few extended families or lineages, strictly patrilineal. Modern villages are composed of many small biological families bound by relationship ties or by their allegiance to a common chief.

Chiriguano chiefs (mburubicha) of old were men distinguished by their courage, their eloquence, and often by their magic power. They enjoyed considerable prestige and held no little authority. Some of them (tubicha rubicha) extended their influence over a wide area and were recognized as a supreme chief by the local chieftains. The main function of a chief was to settle quarrels within the village, to punish thieves, to see that people worked in the fields at the proper time, to arrange feasts, and to lead his men in war. Chiefs also had right of eminent domain over the land. Sometimes a chief was assisted by an informal council consisting of shamans and of the oldest and bravest men of the community. As a rule, a chief, even if he was powerful, led the same type of life as any of his subjects; in recent time some chiefs had servants. Some aristocratic pride was evidenced by the members of their family.

Chieftainship was inherited in the male line, but the title was bestowed on a chief's son only if he were worthy of it. There are only a very few cases of women ruling a *Chiriguano* group, but the *Chané* remembered the names of several women leaders. According to a genealogy of a *Chané* chiefly family recorded by Nordenskiöld (1912, p. 229), power was inherited successively by the brothers and sisters of a deceased chief before it passed to his son. In the village visited by Nordenskiöld, the brother's son of the chieftainess was the actual ruler, but her son by a commoner was the heir apparent. This system of succession is probably the same as the one prevailing among the eastern *Chané* (*Guana*).

Chiriguano chiefs of the past wore conspicuous ornaments and were entitled to carry the *yanduwa*, a pole with a bunch of feathers tied at the end, and a carved stick.

Property.—A plot that had once been cultivated by a man belonged to him and to his descendants, but could not be alienated by him. In order to insure new ownership rights, a *Chiriguano* would plant a few pumpkins on the land which he intended to clear.

Justice.—Thieves were expelled from the community or sometimes were flogged. A man convicted of adultery could lose his property. Murderers were sent into exile, unless the victim's family had time to kill him first. Wronged individuals often took justice into their own hands and challenged the offender to a duel. The settlement of old accounts occurred generally during drinking bouts.

LIFE CYCLE

Childbirth.—Soon after childbirth, the mother went to the river to wash and smear herself with urucú. Both parents observed various food taboos. The father rested for a few days on his bed and refrained from any work, lest he harm the baby. One twin, as well as any malformed infant, was killed (Campana, 1902, p. 72).

Puberty.—Menstrual flow was attributed to the bite of a mysterious serpent. At her first menses a girl was hoisted in her hammock to the roof of the hut, where she was compelled to stay for 5 days without uttering a word. Then she remained for a month or more enclosed in a corner of the hut. Her hair was clipped short, and she was put on a diet of boiled maize. During her seclusion, she spun and wove wool and cotton so that she would be diligent for the rest of her life. Meanwhile, she became pallid, which was greatly admired when she returned to normal life. Henceforth, she used the affirmative “é, é” instead of the childish “ú, ú.”

In ancient times, the confinement of a pubescent girl lasted for several months or even for a year¹ (Campana, 1902, p. 86).

¹ According to Father Chomé (1819 b, p. 202), the pubescent girl was hoisted in her hammock near the roof. During the second month, the hammock was lowered, but the confinement ended only in the third month, when a group of old women entered the hut with sticks to start a symbolic hunt for the serpent that had bitten the girl.

Initiation rites.—Some time between the ages of 7 and 12, a boy had his lower lip perforated by a shaman, who used for this purpose a sharp deer horn. The ceremony was performed only when a sufficiently large group of boys in the village was ready for it. Before they underwent the ordeal, the boys were told that they must show fortitude and that subsequently they could give up the affirmative “ú, ú” for the masculine “tà.” A short period of fasting followed the operation.

Marriage.—In contrast to the free life led by Chaco girls before marriage, *Chiriguano* girls were expected to keep their virginity and were carefully watched by their mothers.

Chomé (1819 b, p. 202) says that a suitor provided his prospective father-in-law with crops and game. This statement suggests bride service, a custom widely spread among *Guarani*-speaking tribes and one observed by the *Chané* of the *Parapetí* River a few decades ago. The bridegroom settled temporarily or permanently with his wife's family.

Polygyny, at least in recent times, was restricted to chiefs or to men of wealth. A man's wives generally lived together in harmony, but in many cases they were kept in separate villages. Polygynous wives were often sisters or a mother and her daughter.

Death.—If the condition of a person was deemed fatal, he was surrounded by a group of women who gave vent to the most spectacular outbursts of grief. This anticipation of the funeral was regarded as a manifestation of affection and respect. The deceased, painted and dressed in his best clothes, was placed squatting in a large chicha jar and was buried, accompanied by his possessions and some food, in the hut where he had lived. The urn was covered with a large jar or plate. The closest female relatives cut their hair and deposited it on the grave. The widow, her head covered with a rag, mourned for a whole year, wailing at certain hours during the day with all the appearance of profound sorrow. She could not resume normal life until a close relative of her dead husband had suggested that she forget her grief. A drinking bout marked the end of mourning.

The soul on its journey to the land of the dead (*iwoka*) faced many ordeals. It had to walk under a wall of fire, over a boiling lagoon, between two onrushing rocks, and between the blades of gigantic scissors. Finally, the deceased reached a land where the dead lived in abundance and joy. This pleasant heaven was open only to those who had never violated traditional custom.

WARFARE

Intertribal warfare.—Raids to steal crops or cattle or to kidnap women were the main causes of intertribal warfare. The head chief convoked the lesser, i.e., village chiefs, harangued them and listened to their advice. Women performed a special dance and sang to stimulate the courage of

the warriors, whom orators constantly exhorted to fight. The main tactic was to surprise and not to be surprised. Scouts were sent ahead of the army and sentries were placed on guard at night. The attack was carried out at dawn. During the battle, the women of the attacked village danced and sang to help their men resist. The victorious party returned with the heads of their slain enemies, which were subjected to all sorts of outrages.

CANNIBALISM

In the past, prisoners were ceremonially killed and eaten. The victims were usually the *Chané*, of whom, according to Lizárraga (1909, p. 552), the *Chiriguano* had eaten about 60,000 during the 16th century. Warriors delivered the captives to their children, who shot them with arrows. Prisoners whom they spared were incorporated into the *Chiriguano* tribe. In more recent times, the prisoners who were not put to death were kept as slaves.

ESTHETIC AND RECREATIONAL ACTIVITIES

Musical instruments.—*Chiriguano* musical instruments are mainly copies of European or Andean instruments, such as the transverse flute. The transverse flute is Spanish, but the quena or end flute (pl. 43, *bottom*) is Andean. Among the most prized possessions of these Indians are round wooden whistles with two stops, and sereres, elongated pieces of wood, perforated lengthwise and blown by stopping the lower aperture (fig. 59, *d*). The clarinet with a slit reed tongue and the cowhorn bell are post-Columbian. The hide-covered drums beaten during feasts is of Spanish origin. Panpipes occur only among the *Chané* of the Parapetí River.

Dances.—Dancers of each sex form a separate line, holding hands with their neighbors. Under the leadership of a master of ceremony who beats time with a feather tuft, men dance on the same spot by bending the knee slightly while women move forward and backward or dance around the men, shaking rattles.

Drinking bouts.—Drinking bouts, in which enormous quantities of chicha are consumed, are attended by friendly communities, which are ceremoniously invited.

Narcotics.—Formerly, tobacco was grown in small quantities by the *Chiriguano* for ceremonial purposes. Today some *Chiriguano* smoke cigarettes, but seldom the pipe. A pre-Hispanic clay pipe was unearthed by Nordenskiöld at Caipipendi. Only a few *Chiriguano* who live near the *Quechua* chew coca, which, however, they do not cultivate.

Fermented drinks.—Maize chicha is the favorite beverage of the *Chiriguano*, who practically subsist on it during the weeks following harvest. Its preparation, entrusted to women, is a lengthy and com-

plicated affair: the grains are crushed in the mortars, and chewed flour is added to the meal, which is thoroughly boiled for many hours in large jars. The *Chané* of the Parapetí River make a fermented beverage of sweet potatoes.

Gambling.—*Chiriguano* and *Chané* are acquainted with the suka game of the Chaco Indians, which undoubtedly has an Andean origin.² Another favorite dice game is called *chukareta*: a bunch of sticks with one face concave and the other convex are thrown to the ground, after one of the partners has chosen one of the sides. If, e.g., the thrower has decided on convex, all the sticks with the convex side up go to him. The one wins who gets most sticks (Nordenskiöld, 1920, p. 99).

European dice games are also known. The dice are of bone or clay and have special markings. Many *Chiriguano* ruin themselves at the famous *taba* game of the Mestizos. It is played with an ox astragalus, which is thrown in turn by the gamblers, who bet on which side the bone will fall.

Games.—Young boys acquire marksmanship by shooting at a rolling wheel. Boys also play hockey, as do their neighbors of the Chaco. They also hurl darts made of a stick and a corn husk. A popular game among children consists in casting a stick so that it rebounds. The one who throws it farthest scores a point, and the first to score eight points in succession wins (Nordenskiöld, 1912, p. 197).

They also throw at each other a shuttlecock made of maize leaves and strive to keep it in the air as long as possible.

Formerly, the *Chané* of the Parapetí River, like so many Guiana tribes, played a ball game with rubber balls which they butted with their heads. They seem to have used two kinds of rubber balls, black solid ones and white hollow ones which they obtained from the region of Santa Cruz or from the Province of Chiquitos.

Chiriguano women had a game (*itarapoa*) in which they threw a stone ball or a hollow clay ball filled with pellets at rows of maize grains placed by twos, one above the other.

Small children whirled tops made of a calabash or played with wax or rag dolls.

RELIGION AND SHAMANISM

During 200 years of close contact with missionaries, many Christian concepts have crept into *Chiriguano* religion. *Tunpa*, or *Iandapoha* ("Our Creator"), is commonly held to be the "real god." *Aguaratumpa*, the Fox God, is a mythological trickster with some features of a culture hero. He was regarded by many missionaries as the functioning god of the *Chiriguano*. There is some evidence of a solar cult, just as there is among the *Guaraní*. Aboriginally, the *Chiriguano* were mainly concerned with "iya," nature spirits, and with "ana," the souls of the dead.

²The dice are made of four pieces of wood, flat on one side and convex on the other. The rules of the game are described in the chapter about Chaco games (Handbook, vol. 1, p. 337).

The shamans (ipaye) enjoyed considerable prestige. When invited by a village to assist its inhabitants in some predicament, they were received with marks of great respect and were lavishly entertained. They served the community as rain makers and as doctors. In the latter capacity, they treated patients or protected the whole village against epidemics. Their curing technique followed the usual South American pattern of blowing and sucking the sick person. They retired to small cabins to communicate with spirits. Blowing tobacco smoke played a large part in the shamanistic ritual. The medicine men were expected to discover the evil charms that threatened the individual or the community as a whole. Shamans were often put to death for their failure to bring rain or to dispel an epidemic. Old women were often called to cure diseases which required the administration of drugs.

During carnivals, which, under the Bolivian influence, have become a period of wild rejoicing, young men wearing masks (pl. 44) of soft wood amuse the spectators by their antics and tricks. As the best masks are those carved by the *Chané*, it is likely that the clown interludes are survivals of dances by masked persons representing nature spirits or ghosts, such as are performed by many *Arawak* tribes. The *Chané* and *Chiriguano* masked characters collect food and depart amid the tears of old people.

MYTHOLOGY AND FOLKLORE

Cosmogony.—The Sun is a man and the Moon is his wife. In the evening the Sun enters a river which he follows until he rises again. An eclipse of the Sun or of the Moon is caused by the attack of a "purple" or "yellow" jaguar. Everybody then makes as much noise as possible to frighten off the celestial feline.

The appearance of the Pleiades, which the *Chiriguano* call "a swarm of bees," announces the harvest season. Their yearly course serves also to reckon time. The *Chiriguano* identify Scorpio with a fenced field, in the center of which is the miraculous spade of *Aguara-tunpa*. In the black skies near the Milky Way (the road of the rhea), they see a celestial ostrich (rhea), the head of which is the Southern Cross. The Magellanic Clouds are the ashes of a fire built by a couple who went to the sky. (See Lehmann-Nitsche, 1924.)

Folklore.—Most of the *Chiriguano* folklore recorded by Nordenskiöld (1912) was obtained from a *Chané* of the Parapetí River region. The collection of myths and tales made by Métraux (1930 b) in *Chiriguano* villages shows that both groups, in spite of their different origin, share substantially in the same folklore. Certain motifs in the *Chané* version, however, have not been recorded among their ancient *Chiriguano* masters, and may well be *Arawak* traditions which have survived among them. An example is the theme, which is well known in the Guianas, of the

"tree-of-life," or "mother-of-all-trees," which was placed by Tunpa on the earth and then disappeared, leaving all food plants as its offspring.

A flood, which once covered the world, was caused by the curse of a young woman who was insulted by her mother-in-law. In another version of this myth, the flood resulted from a storm brought about by a man with wings (Thunderbird). A boy and a girl were placed in a jar with all kinds of seeds and, when the waters subsided, they planted these seeds and repopled the world.

There are two versions of the myth of the origin of fire. In one, fire was stolen from Sun by the children who escaped the flood; in the other, fire, which was the property of the Vultures, was stolen by a Toad who, pretending to be cold, came near the fire and stole some embers.

The leading characters of *Chiriguano-Chané* folklore are Armadillo (Tatu) and Fox (Aguara), whose names, when mentioned in the various stories, are always followed by the adjective, "tunpa" (sacred). Armadillo is a wise and powerful character, always well disposed toward mankind. Aguara-tunpa (Fox) is a trickster, though in many cases he also plays the part of a culture hero. For instance, Fox steals algarroba seeds from Viscacha (*Lagostomus maximus*), he captures Vulture and forces him to yield the original rubber ball as his ransom. Tatu-tunpa and Aguara-tunpa have several adventures together. On one occasion Aguara-tunpa changes Tatu-tunpa into a repulsive man in order to marry the pretty daughter of a chief while his companion gets the ugly one. Tatu-tunpa shows his greater power by magically tilling a huge field which is instantaneously covered with all kinds of foods. Aguara-tunpa is then unmasked.

Aguara-tunpa kills Tatu-tunpa and puts on his skin, in order to deceive the latter's wife. Again he is unmasked and punished.

The old *Tupí-Guaraní* myth of the Twins was also recorded among the *Chiriguano* (Métraux, 1930 b). A girl is magically impregnated by Tatu-tunpa. She is expelled from her village and wanders in search of the father of the Twins who she bears in her womb and who speak to her. The Twins show her the path to their father's house, but, becoming angry at her, they mislead her to the house of the Jaguars, who kill her. The Twins are brought up by their grandmother. Later they hear about the murder of their mother from a yacu bird. They take revenge on the Jaguars by attempting to drown them when they cross a river by making it wider and wider. Finally, the Twins climb up a chain of arrows to the sky, where they become Sun and Moon.

The *Chiriguano* also have a version of the old *Mayan* and *Andean* myth of the rebellion of manufactured objects against their masters.

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THE YURACARE, MOSETENE, AND CHIMANE

TRIBAL DIVISIONS

Culturally, the *Yuracare*, *Mosetene*, and *Chimane* are closely related (map 1, No. 3; map 2). The *Leco* probably belonged to the same cultural area, but information on them is scanty and, therefore, it is presented in a special chapter.

The *Yuracare* (*Conis*, *Cuchis*, *Enetes*) territory was defined by D'Orbigny (1839, 1:354-355) 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 (lat. 16°-17° S., long. 63°-66° W.). In more recent times, *Yuracare* settlements were scattered along the Mamorecillo, Chimoré, Chaparé, Securé, and San Mateo Rivers and their tributaries.

The *Yuracare* were divided into two mutually hostile groups: The *Soloto*, or eastern *Yuracare*, and the *Mansiño* to the west, on the slopes of the Andes. The *Oromo*, though exterminated by the *Mansiño*, seem to have belonged to the latter nation. The *Soloto* of the Mission of San Carlos were called *Mage* by the inhabitants of Santa Cruz.

The contacts of the *Yuracare* with the Whites go far back in time. On several occasions in the 17th century, they raided the Spanish settlements near Mizque and Cochabamba. The first missionary to visit them was Father Francisco Marcos who, in 1776, founded the Mission of Asunción de Maria Santissima 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 in 1795 by Father Tomas Anaya, but was deserted by the Indians in 1805, after it had been shifted to the Mamoré River. The Mission of San Francisco, founded on the Mamoré River in 1793, was also soon abandoned. At the beginning of the 19th century, Father Lacueva tried to restore the Mission of Asunción, but it was in ruins when D'Orbigny passed through it in 1831.

The *Yuracare* language is still regarded as unrelated to any other group.

Haenke (1900, p. 182) put the total number of *Yuracare* at the end of the 18th century at about 1,500. In 1831, D'Orbigny (1839, 1:355) estimated that there were about 1,000 *Mansiño* and 337 *Soloto*. A German colonist in 1877 reckoned the whole tribe to be about 1,500 (Holten, 1877, p. 108), and Nordenskiöld (1922, p. 46) estimated their number to be approximately 1,000 in 1908.

The *Mosetene* (*Rache*, *Amo*, *Chumpá*, *Cunana*, *Aparono*, *Magdaleno*) lived along the Bopi (Wopi) River to Espia and along the Quiquive and Beni Rivers north to the vicinity of Reyes (lat. 15°–17° S., long. 67° W.) until the end of the 19th century, when they were concentrated in the Missions of Covendo, Santa Ana, and Muchanes. The *Mosetene* of the Beni River are also called *Muchanes*; those at the junction of the Bopi and Beni Rivers are known as *Tucupi*.

The *Chimane* (*Chimanisa*, *Chumano*, *Nawazi-Moñtji*), who are closely related to the *Mosetene*, are settled on the upper Maniqui (*Chimane*) and Apere Rivers (lat. 15°–17° S., long. 66° W.).

Mosetene also is classified as an isolated language.

ARCHEOLOGY

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

POST-CONQUEST HISTORY

The *Mosetene* are first mentioned in 1588, under the name of *Amo*, when they told Francisco de Angulo (Maurtua, 1906, 9:88–104) of the riches of Corocoro. They informed the Spaniards that the *Inca* were conquering their land when Pizarro landed, and that some *Mosetene* had paid tribute to the Peruvian ruler.

The first missionary to the *Mosetene* was Gregorio de Bolívar, 1621, who also mentioned the *Chimane*. On a second trip, he disappeared on the Sepayco River. In 1666, another Augustin priest crossed the land of the *Rache* (*Mosetene*).

The religious and political conquest of the land of the *Mosetene* 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 as a scout and leader, gave a detailed account of this expedition. (See Meléndez, 1681–82, 3:812–844.) The two priests and a few Spaniards spent the rainy season in a *Mosetene* village planting the first seeds of Christianity. The Indians, who had been decimated by smallpox, were well disposed toward the newcomers.

The following year, the Spaniards reached the Ypati River, where they found the first *Mojo* villages, explored the Cotacaxas River, and finally arrived at the Beni River, near the mouths of the Sopire and Coani Rivers. After raiding a village of *Humuca* Indians near the junction of the Quetoto and Beni Rivers (i.e., the Santa

Elena or Altomachi River), the soldiers deserted, and Quiroga gave up his dream of conquering the mountains of the silver and gold which the Indians had persuaded him he was about to discover.

According to Francisco del Rosario, the *Mosetene* and *Mojo* had active trade relations, especially in salt. The *Mojo* also purchased European knives and beads from the *Mosetene*, who received in exchange cotton cloth, Brazil nuts, and feathers. Many *Mosetene* spoke or understood *Aymara*, a striking evidence of Andean influence on the Forest Tribes.

The systematic conversion of the *Mosetene* began when the Mission of San Miguel de Muchanes was founded in 1804. Santa Ana was founded in 1815 and Covendo in 1842. The first *Chimane* missions were formed by Dominicans at the end of the 18th century, but were destroyed by the Indians. The two Franciscan missions established in this region in 1840 were soon abandoned.

Long contracts with the Mestizos have thoroughly acculturated the contemporary *Mosetene*, but the more isolated *Chimane* still retained much of their aboriginal mode of life 30 years ago.

POPULATION

Father Francisco del Rosario put at 1,000 the total population of six *Mosetene* villages he visited in 1667. In 1831, the *Mosetene* numbered about 2,400. In 1913, Nordenskiöld found only 172 *Mosetene* in the Mission of Covendo. He estimated the *Chimane* to be from 2,000 to 3,000.

CULTURE

SUBSISTENCE

Farming.—The *Yuracare*, *Mosetene*, and *Chimane*, typical forest dwellers, subsist by farming, fishing, hunting, and, to some extent, by collecting wild foods. The *Yuracare* cultivated a few crops near their houses, but their main plantations were located farther away, in the exceedingly fertile soil of the forest. The surface of one of their fields measured by Nordenskiöld (1922, p. 49) was 33 feet (10 m.) by 1,650 feet (500 m.).

The *Mosetene* cultivate simultaneously several fields distant from their settlements.

The three staple foods of these tribes are sweet manioc (yuca), maize, and bananas. Their other cultivated plants are sweet potatoes, gourds, watermelons, hualusa (*Colocasia esculenta*), papaya, pineapples, cayenne pepper, cotton, and some tobacco. The *Mosetene* grow urucú and plants recently introduced, such as onions, rice, and a very good quality of coffee. Besides the native plants listed here, the *Chimane* also grow a creeper called binca, a big tuber known as chipapa, eight varieties of reed for arrow shafts, creepers for drugging fish, calabash trees, and bamboo for making arrowheads.

Formerly, farming among the *Yuracare* was surrounded by many magico-religious practices. These Indians went to their fields in festive array, playing music. While clearing the fields, both sexes observed

several taboos, such as abstaining from eating peccary meat. They never approached a field before the crops were ripe for fear of spoiling them. In fact any house too near a field was vacated until harvest time (D'Orbigny, 1835-47, vol. 3, p. 205).

When the game became scarce around their villages and when no more tembé palms were available in the vicinity, the *Yuracare* migrated elsewhere and opened new clearings. The death of some member of the community also caused them to shift their settlement. As a rule, they chose the season when the tembé-palm fruits were ripe to move to a new site, so that they could wait for their crops without starving.

Gathering wild foods.—The forest provides these Indians with many wild foods, among which the fruits of the tembé (*Guiljelma insignis*) and urupa palms are of special importance. To climb the trees in order to pick the fruits, the *Chimane* fasten fiber rings around their legs.

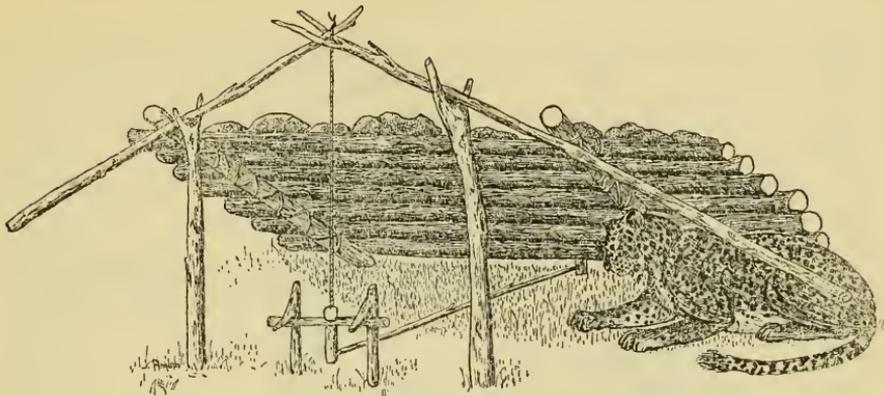
Hunting.—Among the ancient *Yuracare*, hunting besides its economic importance had social significance; it was regarded as a dignified occupation for men and gave prestige to those who were proficient in it.

The hunting weapons are bows and arrows, snares, and traps. The *Mosetene* catch rabbits with springpole traps which are held in position by a trigger passing under a small wooden arch placed in the middle of an enclosure. To kill jaguars and other big animals, they build large fall traps (fig. 62) consisting of a heavy, sloping platform of logs or branches weighted with rocks and propped on two slanting poles. The support is held by a cord attached to a trigger which is maintained in position by a horizontal stick. Smaller animals are caught in a similar trap, but the raised platform is propped by a single stick resting on a horizontal, baited rod which serves as the trigger.

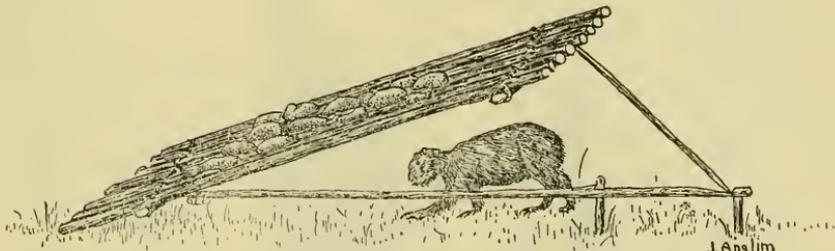
Fishing.—Fishing is of far greater importance to the *Chimane* than hunting. Although all these Indians usually shoot fish with arrows, the *Mosetene* and *Chimane* also use hooks, nets, poison, and weirs. Native *Chimane* hooks were made of bone splinters.

To drug fish, the *Chimane* build two weirs of reeds about 150 feet (50 m.) apart across a stream, throw a crushed poisonous creeper into the water, and shoot the half-drugged fish with arrows. They also catch fish in conical baskets placed in the openings of a weir. When fish migrate to spawn, the *Mosetene* and *Chimane* construct V-shaped weirs which divert them toward slanting platforms placed under the falls, where they become stranded and die in great quantities. The *Yuracare* use dip nets, mainly at night. The mission *Mosetene* dry fish in the sun to store them.

Domesticated animals.—In D'Orbigny's time, the *Yuracare* felt the greatest disgust for the meat of domesticated animals, but they may have changed their attitude. All these Indians keep chickens which they shut at night in conical coops, safe from vampire bats. They also have dogs



a



b

FIGURE 62.—*Mosetene* traps. *a*, Jaguar and smaller Felinae trap. The animal is crushed by weight of logs and stones. *b*, Similar trap for smaller mammals. (Redrawn from Nordenskiöld, 1924 a, figs. 17 and 18.)

of which they seem to be fond. The *Yuracare* do not allow their hunting dogs to gnaw the bones of game lest they lose their skill.

Food preparation.—Maize was ground on wooden slabs or metates with a stone grinder, meal was strained through a rectangular (*Mosetene*) or concave (*Yuracare*) sieve. Meat was roasted on rectangular babracots. For cooking, these Indians used pots of simple shape. They ate the food with wooden spoons from bowls made of wood or sometimes of palm-leaf midribs (*Mosetene*). *Yuracare* men ate in their clubhouses apart from women. After each meal these Indians carefully buried all the bones or burnt them lest the offended game refuse to multiply.

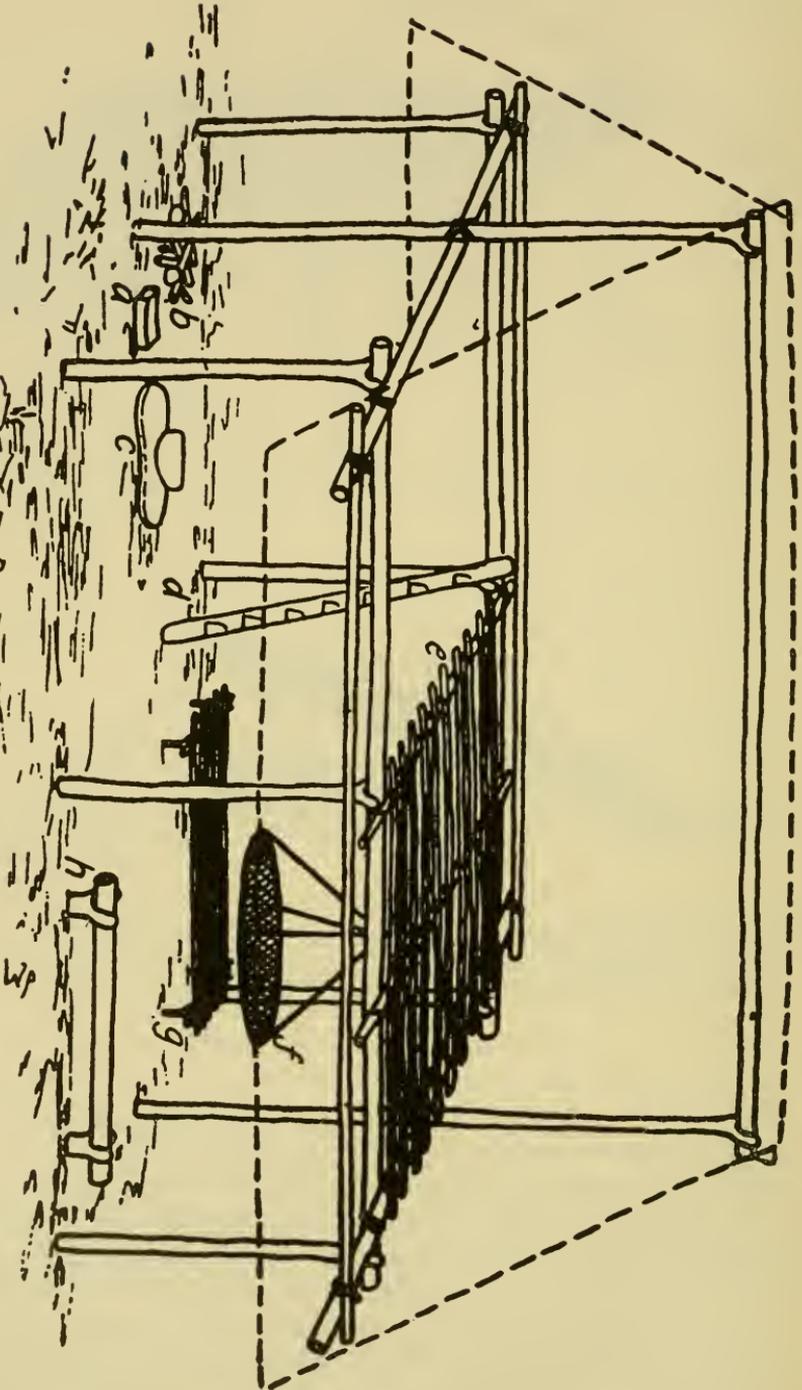


FIGURE 63.—*Mosetene* hut. *a*, Stool; *b*, fireplace; *c*, grinding stone; *d*, ladder; *e*, shelf for supplies; *f*, hanging shelf for the preparation of foods; *g*, bed; *h*, bench. (After Nordenskiöld, 1924 a.)

HOUSES

The primitive *Yuracare* dwelling consisted of a large, thatched, gabled roof open at both ends and rising directly from the ground (pl. 45, *bottom*). Often, the two sides of the roof rested not on a single ridge pole, but each on its own posts, as if the roof were made of two separate but adjoining lean-tos. The *Yuracare*, *Mosetene*, and *Chimane* (fig. 63) now live in rectangular huts identical to those of their Mestizo neighbors, but occasionally the *Mosetene* and *Chimane* build temporary huts of the ancient *Yuracare* style.

In the past, each *Yuracare* village had a clubhouse, strictly taboo to women, where men manufactured weapons, ate, and received visitors. Seventeenth-century *Mosetene* villages had also a men's house or council hall in the central plaza. Neither tribe now builds clubhouses. The *Yuracare* cook in special sheds near the houses.

The ancient *Mosetene* arranged their houses in a circle around a plaza. The settlements of the *Chimane* usually consist of a few houses, but isolated single-family huts are fairly common. The Indians prefer to scatter throughout their territory for fear that any large concentration of people at a given point would soon exhaust the available natural resources of the district.

The *Yuracare*, *Chimane*, and *Mosetene* sleep on mats, the first two under tentlike mosquito nets of bark cloth. Hammocks, generally made of bark cloth, are used only as cradles for babies.

On journeys, the *Mosetene* improvise shelters of palm leaves supported by three vertical poles.

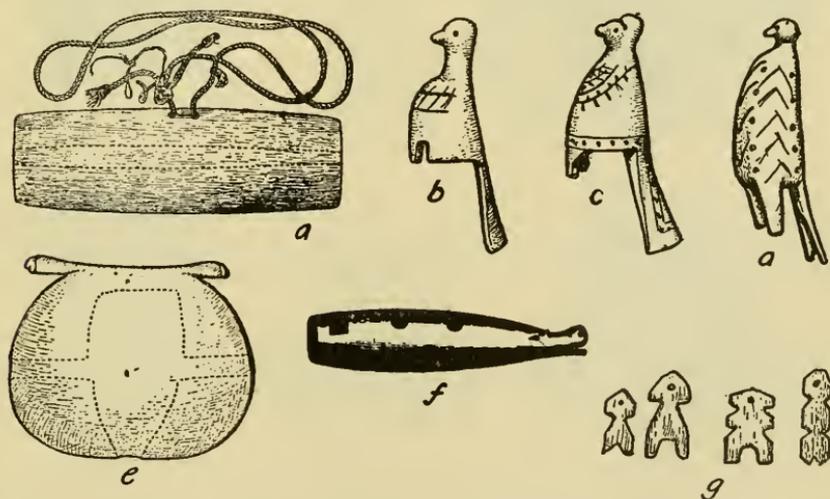


FIGURE 64.—*Yuracare* ornaments, whistles, and flutes. *a*, Wooden whistle, serere type; *b-d*, carved caiman tooth ornaments; *e*, wooden whistle, biria type; *f*, wooden flute; *g*, bone beads. (Caiman tooth ornaments $\frac{2}{3}$ actual size.) (*f*, After Mathews, 1879; all others after Nordenskiöld, 1922, figs. 9, *a*, 16, 11, and 10.)

DRESS AND ADORNMENTS

Among the *Yuracare*, both sexes wear long bark-cloth tunics which are often trimmed with tassels and small figures of carved wood and bone (fig. 64, *b-d*). Men's tunics are beautifully decorated with printed patterns (pl. 45, *top*); women's garments are plainer and shorter. Among the *Mosetene* and *Chimane*, bark-cloth tunics were once common, but today are restricted to children, or are worn only as work clothes; both sexes also use long sleeveless cotton shirts or cushmas. Seventeenth-century *Mosetene* women wore only a simple loincloth.

A belt decorated with geometric patterns and long terminal fringes, and a cotton or bark-cloth bag generally form part of the complete outfit of a *Mosetene* Indian.

The ornaments worn by the ancient *Yuracare* included: Semicircular ear pendants (fig. 65, *c*), originally of bone, but later of silver; miter-

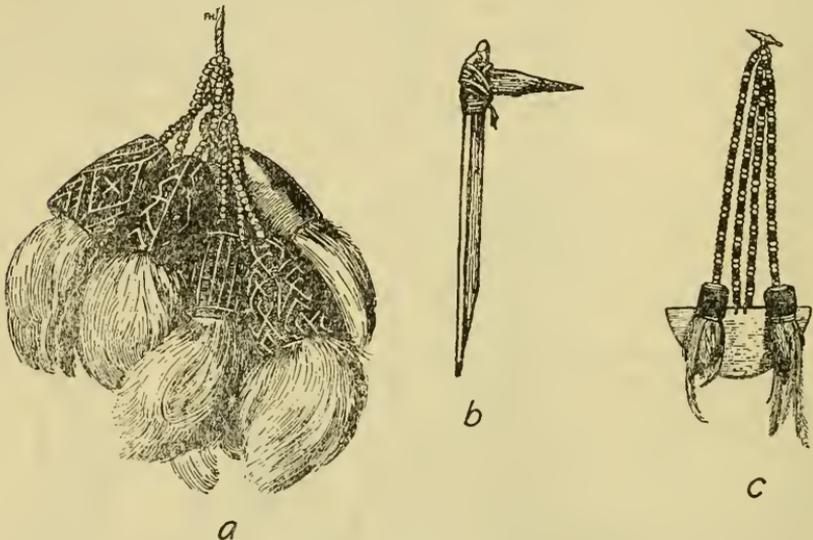


FIGURE 65.—*Yuracare* artifacts. *a*, Woman's pendant of black fruit and red toucan feathers; *b*, instrument for bloodletting; *c*, ear pendant. (Respective approximate sizes: 3/5, 4/5, and 3/5 actual.) (After Nordenskiöld, 1922, figs. 34, 33, and 17.)

shaped feather crowns; and heavy necklaces of seeds, animal teeth, bird beaks, bones, nuts, and other objects. When dancing, girls and boys attached tufts of feathers, strings of beetle wings, or small bells to their shoulders.

The *Chimane* wore headdresses made of the tail feathers of the oropendula (*Ostinops decumanus*). Women's necklaces were strung with the red fruits of the *Cassia fistula*; those of the children with monkey teeth, cocoons, and pieces of bark cut into human shapes. The only other ornaments of these Indians were woven cotton bracelets.

The ancient *Yuracare* pulled out their face and body hair. They clipped their hair across the forehead, but allowed it to hang full length down the back, where it was divided into numerous queues. The *Mosetene* wrapped their hair in a single long queue.

Combs were made either of thin wooden splinters, skillfully bound together with cotton twine wrapped to form geometric patterns, or of series of teeth fastened between two sticks. They were carried around the neck.

Prior to any important activity, such as traveling, visiting, or working in the fields, the ancient *Yuracare* printed elaborate colored designs on their bodies with wooden stamps (fig. 66). *Mosetene* and *Chimane* body painting is rarely mentioned.

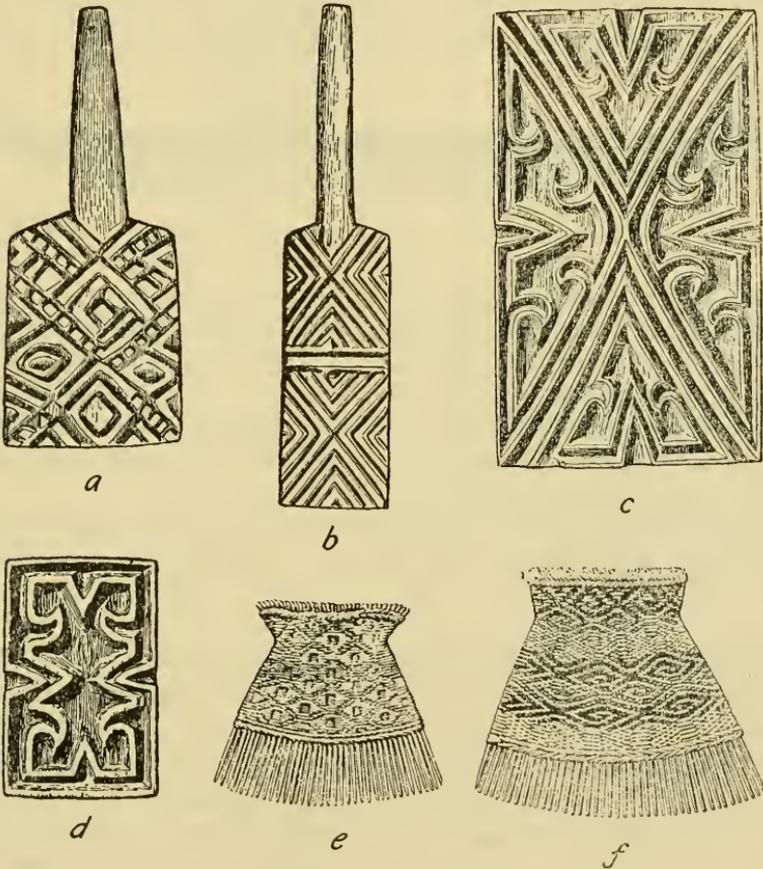


FIGURE 66.—*Yuracare* stamps and combs. *a, b, d*, Face stamps of wood; *c*, wooden stamp for bark cloth; *e, f*, bamboo combs. (Stamps approximately 2/5 actual size; combs, 2/3.) (After Nordenskiöld, 1922, figs. 35, 37, 15, 36, 13, *a, b*.)

TRANSPORTATION

According to D'Orbigny (1839, 1: 363), the ancient *Yuracare*, previous to their contacts with the Christianized *Mojo* Indians, had no canoes. Buoyed by a piece of light wood, they swam across rivers. By the beginning of this century, however, the *Yuracare* made extensive river journeys in dugout canoes which were famous throughout eastern Bolivia for their excellent craftsmanship and balance.

The *Mosetene* travel only on rafts, which are better adapted than canoes to the rapid streams of their country. Modern rafts are made of seven logs of palo de balsa, a very light wood, nailed together with chonta spikes and provided with a platform to keep goods dry. The long central logs consisted of two trunks laid end to end. Some rafts have a raised prow constructed of bent pieces of wood attached to three middle logs. The raised bow and platform were introduced in modern times when the *Mosetene* handled most of the river traffic on the upper Béni River. The paddles have a long blade and a plain handle without knob or crutch.

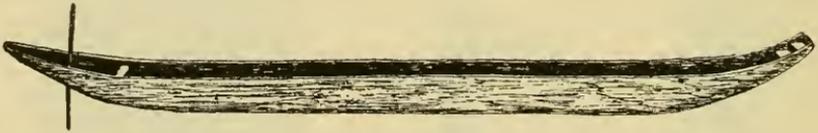


FIGURE 67.—*Chimane* dugout canoe. (Redrawn from Nordenskiöld, 1924 b, fig. 37.)

The *Chimane* have rafts, but usually travel on the rivers in dugouts (fig. 67), which they punt with long poles, using a paddle only to pass rapids. At night they stake their canoes to the sand by means of a stick passed through a hole in the bow.

Women carry loads in nets or in baskets suspended on their backs by a tumpline. Like the Andean Indians, the *Mosetene* always wear a small cotton bag slung over the shoulders.

Among the ancient *Mosetene* mothers often carried small babies on their back in cotton bags. Older children straddled the mother's hip.

MANUFACTURES

Bark cloth.—Bark cloth is made from the thick bast layer of the bibosi tree (*Ficus* sp.) and certain other trees (pl. 47, *bottom*). A section of trunk, 8 to 10 inches (20 to 25.5 cm.) in diameter is cut the desired length, and the bark is incised longitudinally with a quartz splinter or a sharp tooth. The stump is heated until the dry bark can be peeled off. The bark is stretched to separate the outer bark from the inner bast, and all the whitish fibers are scraped from the latter. The bast is then beaten with a grooved wooden mallet (fig. 68, *a*) until soft. Several bark-cloth pieces are sewn together with a bone needle to make blankets, shirts, and mosquito nets.

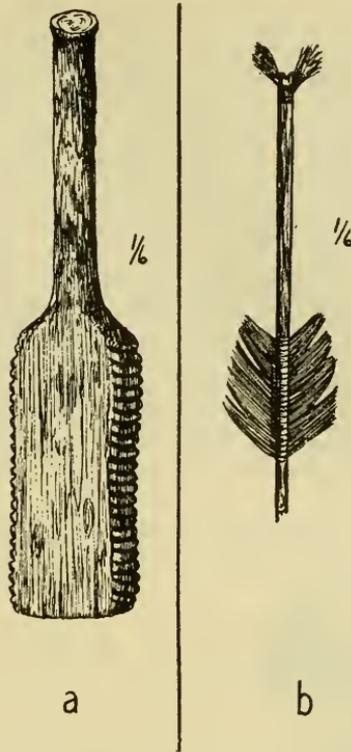


FIGURE 68.—*Chimane* and *Yuracare* artifacts. *a*, *Chimane* bark-cloth beater; *b*, *Yuracare* arrow feathering. (Redrawn from Nordenskiöld, 1924 b, map 28 and fig. 8.)

Basketry.—The use of carrying nets limits somewhat the importance of basketry, which, however, seems to be a flourishing industry. The large baskets in which crops are transported and the small containers in which odds and ends are kept, are woven of motacu palm leaves. The large rectangular boxes with overlapping lids in which the *Chimane* store their feather ornaments and amulets are identical to those found in many other tribes of eastern Bolivia. They are made of *Gynerium* stalks joined together with cotton threads (fig. 69). The round and square sieves (pl. 47, top) are woven in a simple twilling technique. The *Mosetene* make mats of leaves or reeds cut in strips and crossed within a rectangular reed frame.

Netting.—The carrying nets are made in a reef-knot technique.

Spinning.—Spindles as a rule have small rectangular wooden whorls. To spin, *Mosetene* women sit on the ground with outstretched legs; they place the distal end of the spindle between the large toe and the next toe of the left foot and roll the spindle on the right thigh. This method has been somewhat improved upon by the *Yuracare*: the women set the spindle's distal end in a wooden fork and roll it on a wooden block instead

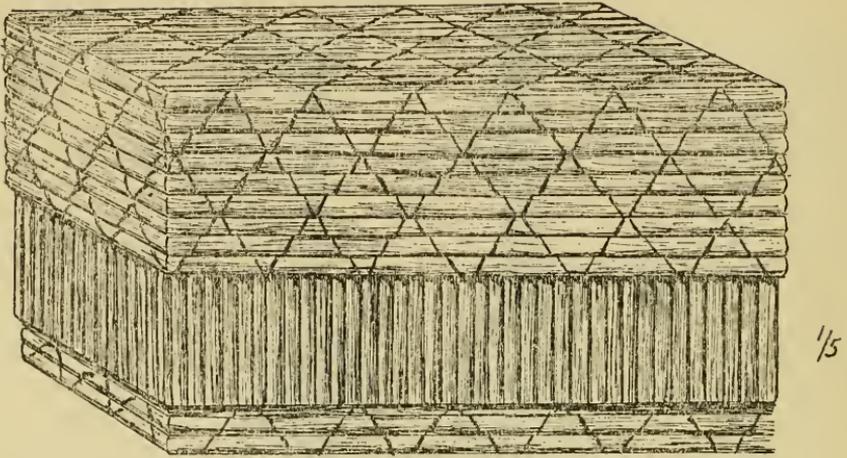


FIGURE 69.—*Yuracare* twined stick box. (Redrawn from Nordenskiöld, 1922, fig. 26.)

of on the thigh. (See *Chimane* woman spinning for another variation (fig. 70).)



FIGURE 70.—*Chimane* woman spinning cotton. (After Nordenskiöld, 1924 b.)

Weaving.—The *Yuracare* have the vertical loom. The *Mosetene* know how to make cloth by a method of plaiting which occurs also in the Guianas (see Roth, 1924, chap. 20): Cotton threads are first wrapped around two horizontal bars of the loom. The threads are then crossed

over and under the adjoining threads and held in place by transverse mesh sticks until the entire cloth appears to be diagonally woven; then the sticks are withdrawn and strings run in their places to prevent the threads from slipping back to their original position. Patterns are obtained by using different colored threads.

Violet dye is extracted from the leaves of the idzi tree (*Haematoxylon* sp.), and brown from jira or caoba tree bark.

Pottery.—The making of pottery was surrounded among the ancient *Yuracare* by many taboos: clay could not be procured during the harvest season; the potters, who were always women, were secluded in special huts deep in the forest where they could not be seen, especially by the Thunder God; moreover, they had to remain chaste and to keep completely silent.

Chimane women sprinkled their pots after they had been fired with banana tree sap to give them a beautiful black color.

Wood carving.—*Yuracare* men are still proficient wood carvers, as evidenced by the complicated designs cut in relief on their wooden stamps, by their small carved wooden and bone pendants, and by their fine wooden bowls.

Tools.—A few years ago, the *Chimane* still used stone adzes. The stone blade was hafted on a forked limb, the longer branch forming the handle and the shorter branch the base against which the blade was lashed.

Weapons.—Bows in these three tribes are from 5 to 6 feet (1.65 to 1.98 m.) long and made of sticks split from chonta palms. The rough staves have a rectangular cross section, with one side slightly convex. This shape is preserved even after the bow has been finished. The string of vegetal fiber is held but sharp shoulders cut at each end.

The various types of arrow heads are: (1) A lanceolate bamboo head; (2) a sharpened rod without barbs (*Mosetene*) or with jags on one side (*Yuracare*); (3) a bone barb is often added to the rod for hunting large game (*Yuracare*); (4) a large wooden knob head or two horizontal sticks lashed at right angle to the rod, for bird hunting (the *Mosetene* often smear heads of bird arrows with rubber); and (5) a long rod point with barbs (*Mosetene*) and without barbs for fishing (*Yuracare*). The feathering is of the cemented type. The feathers are halved, and fastened tightly to the *Gynerium* shaft by means of cotton wrapping smeared with wax. The feathering terminates some distance short of the butt end, as on *Yuracare* arrows (fig. 68, *b*).

When shooting, the *Yuracare* hold the arrow butt between the thumb and index finger and pull the string with the next two fingers.

POLITICAL ORGANIZATION

All these tribes are split into small, independent units, each consisting of one or more biological families. Although some settlements are rela-

tively near one another, each family keeps very much to itself. Each settlement is governed by the family head, whose authority does not extend beyond his own small group.

SOCIAL CONTROL AND ETIQUETTE

Revenge.—Quarrels among the *Yuracare* were settled by formal duels with arrows (pl. 45, *top*), which were equipped with heads that could inflict deep wounds but not cause death. The main motives for duels were sex rivalry and revenge for black magic. If a person were bitten by a serpent, one of his relatives donned his best garments and went to the house of the presumed sorcerer, where he challenged him to a duel by striking the roof. The accused, taking his bow and dueling arrows, stood some distance from the challenger, presenting his left shoulder. The accuser shot at the other's arm and then was shot at in turn. Thus they exchanged 8 or 10 shots, until the accuser was satisfied.

Suicide.—Suicide among the *Yuracare* was very common. If a man was afflicted with some incurable disease or suffered some great humiliation, he would throw himself from the top of a tree.

Etiquette.—Meetings between strangers were governed by strict etiquette. The *Yuracare* received visitors with elaborate ceremonialism. Standing in front of his house, the family head delivered a speech for several hours in a progressively louder tone. One of the visitors answered in the same manner. At the end, hosts and guests entered the house, and cried for hours, celebrating in stanzas the deeds of their deceased relatives.

LIFE CYCLE

Pregnancy and child birth.—During pregnancy, *Chimane* women avoid eating the flesh of several game animals, especially tapir. Formerly, among the *Yuracare*, childbirth occurred in the forest beside a brook; an old woman assisted the mother. Abortion and infanticide were very common among ancient *Yuracare*, who killed illegitimate and crippled children. The *Yuracare* are said to have practiced a kind of birth control, each family limiting the number of its children.

In D'Orbigny's time, children were weaned at 3, but remained with their mothers until 8, when boys were taught to hunt and make speeches. They enjoyed great liberty and were never scolded because harmful magic influences were attributed to reprimands.

Girl's puberty.—The *Yuracare* celebrated a girl's first menses with an elaborate ritual, designed to protect her from various dangers and to make her valiant. The girl was secluded for 4 days in a special cabin. On the fourth day, everyone met for a drinking bout. Each guest cut a lock of the girl's hair and hid it in the forest. The girl was also stabbed in the legs to give her courage and strength. The feast was the occasion for

mutual scarifications among the men. After another ceremony 15 or 20 days later, the girl might mix freely among other women and help prepare chicha.

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

Marriage.—*Yuracare* girls could marry young, but men had first to prove that they were good providers. Either a man negotiated marriage with the girl's parents, or the parents arranged and enforced the marriage on their children. A dubious statement holds that the girl was deflowered by a man who acted as godfather to the couple.

As all *Yuracare* groups were strongly endogamous, marriages were necessarily between close relatives, although marriages between first-degree relatives were forbidden. Marriage with other than a relative required a substantial bride price; a breach of this custom would cause a duel.

Polygyny was very unusual. Divorce was easy, especially if the husband were a poor hunter. Postmarital residence was first matrilocal, but after children were born, the couple set up an independent household.

Chimane girls enjoy sexual freedom after puberty but marry young. To show their willingness to marry, they sit near their suitor on a mat. After a short trial marriage, the couple may separate, but the birth of a child usually strengthens the conjugal tie. A *Chimane* may take only as many wives as he can support.

Death observances.—Among the ancient *Yuracare*, relatives and friends took a dying person to a special cabin in the forest, where he bequeathed his property to his children and received messages from various people to the ancestors. The corpse was wrapped in bark and buried, with the head toward the east. The mourners expressed violent grief, throwing themselves on the ground and tearing their shirts. Any remaining property was destroyed to prevent the dead's return. Modern *Yuracare* still burn the deceased's house and move their settlement to another locality. They abandon the dead man's fields and do not harvest the crops.

The soul goes to the underworld, where it hunts and lives merrily.

The *Chimane* bury their dead in shallow graves near their huts which, with the deceased's possessions, are destroyed. Mourners occasionally smear their cheeks with ashes.

ESTHETIC AND RECREATIONAL ACTIVITIES

Art.—*Yuracare* art finds its best expression in the painted bark-cloth shirts. The motifs, some rectilinear but most curvilinear, are difficult to analyze. They can be likened to extremely conventionalized leaves and "flames" treated in rococo style.

Games and toys.—For little girls the *Yuracare* make wax dolls and for boys, miniature weapons, including pellet bows and ordinary bows and arrows. Children also play with buzzing disks and tops (fig. 71, *e*).

Musical instruments.—The typical serere whistle—a rectangular piece of wood with a diamond-shaped cross section and a longitudinal hole—is not only a musical instrument but also a prized ornament which men hang around their necks (fig. 64, *a*).

The resonator whistle, closely related to the serere, is a round, flat piece of wood with a blowhole in the edge and two stops in the sides (fig. 64, *e*). Plug flutes (figs. 64, *f*; 71, *a*) with six stops, although made of bird bone, are of European type. The *Yuracare* bone quenas or notched end-flutes (fig. 71, *b-d*) show Andean influence. These have two stops in front and a thumb hole immediately behind the upper stop.

The *Yuracare* panpipes (fig. 71, *g*) average five pipes, which are held together by a strip of bamboo fastened with threads (*Aymara* ligature).

Narcotics and drinks.—The *Yuracare* cultivate, but rarely smoke, tobacco. They used it mainly as a drug against the boro, an oestrid fly (*Dermatobia*) larva.

They prepare beer of pounded and boiled manioc tubers (pl. 46, *top*). The mass is strained and allowed to ferment.

RELIGION AND SHAMANISM

Deities.—Among the ancient *Yuracare*, 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 *Yuracare* how to fight. Tele, dressed in white clothes, seems to have been the culture hero. According to Haenke (1900, p. 183), the *Yuracare* 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.

The only information on *Mosetene* religion before the introduction of Christianity is Father Francisco del Rosario's statement (Meléndez, 1681-82, 3:821) that their main deity was called Apu, a *Quechua* word meaning "lord," and that Suysuy (a bad spirit), the sun, the moon, and the stars were worshiped; tobacco smoke was offered to them. One night during their sojourn in a *Mosetene* village, the Spaniards heard a noise as if somebody were running away. The Indians explained that it was Suysuy who had died and was going to the underworld.

Mosetene hunters bleed their right arms with an eagle claw and rub their eyes with an eagle eye. They leave the liver of peccaries at the

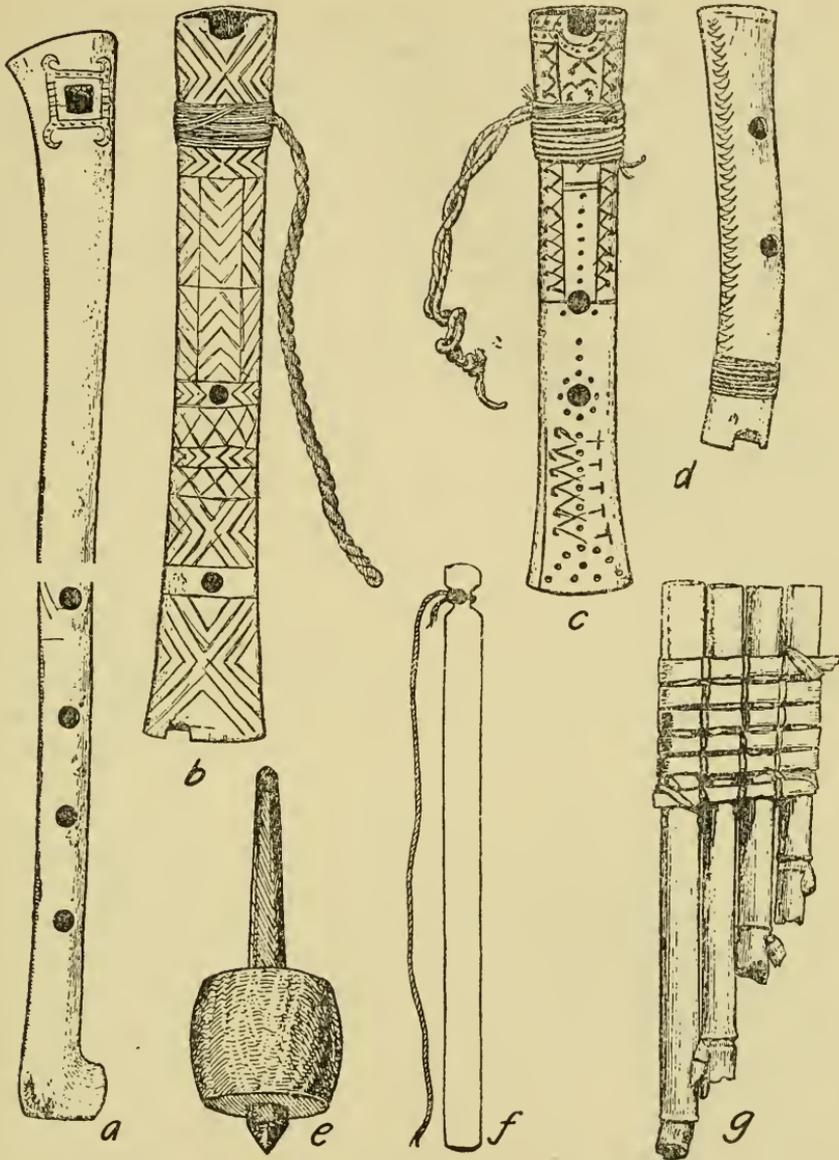


FIGURE 71.—Yuracare musical instruments. *a-d*, Bone flutes with engraved designs; *e*, top made of a fruit and wooden stick; *f*, bull roarer; *g*, bamboo panpipes. (Flutes $\frac{1}{2}$ actual size; top, $\frac{2}{3}$ actual size; bull roarer, $\frac{1}{4}$ actual size; panpipes $\frac{1}{2}$ actual size.) (After Nordenskiöld, 1922, figs. 29–32.)

site of the kill, in the hope that they will turn into live animals. Before a hunt, Yuracare men paint themselves elaborately and drink a decoction of sumuque bark to insure good luck and prevent accidents. After returning home, they place the slain monkeys on palm leaves and sprinkle them with chicha saying, "We like you and therefore we brought you

home." The *Chimane* cut the feet of slain animals lest their ghosts, accompanied by all the remaining game, leave the district. The *Yuracare* burned or carefully buried the bones of slain animals; the *Mosetene* returned them to the forest, lest they prevent the species from being killed in the future. *Yuracare* dogs are not allowed to gnaw bones for fear that they might become unfit for hunting.

Shamanism.—The *Yuracare* attributed diseases 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 extremely harmful to those who received them.

Because epidemics generally were attributed to visitors, especially to those who complained of some ailment, the *Yuracare* were uneasy when foreigners visited them.

Yuracare shamans examined their saliva in the palms of their hands and summoned their client's soul to diagnose the ailment. They cured by letting blood (fig. 65, *b*) and by blowing tobacco smoke on the patient's body.

Recently, black magic was still rife among the Christianized *Mosetene*. They dread sorcerers, who can kidnap and destroy the souls of their victims. Medical virtues are attributed to the bones of Opo, a gigantic demon (i.e., fossils), which can be found in every hut. Pieces of the body of another demon, Chaumbo, cause a common type of skin disease.

MYTHOLOGY

In *Yuracare* mythology (D'Orbigny, 1835-47, vol. 3, pp. 209-215), an evil demon, Sararuma or Aïma Suñé, set the earth on fire at the beginning of the world, and killed everyone except a man who stayed in a hole. Later, the survivor wandered over the desolated earth; he met Sararuma, who gave him a handful of seeds which he planted. Soon forests again covered the world. He married and had several children. His only daughter transformed an ule tree into a man by painting it with urucú and married him. Ule spent only nights with his wife. She 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." Ule then noticed that part of his jaw was missing. This made him ashamed and he refused to return home. He 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 it was produced by her husband's animals. The woman did not heed the advise and lost her way. She arrived at the house of the jaguars. Although the mother of the jaguars tried to conceal her, her sons discovered her and forced her to delouse their heads and to bite the "lice," which were really big ants. The jaguars' mother

gave her maize grains, which she cracked with her teeth, as if she were biting the vermin. One of the jaguars that had four eyes exposed the ruse. He killed her and extracted a baby boy, Tiri, from her womb. 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 a paca, which he had struck with an arrow, scolded him for pursuing harmless animals while he allowed the murderers of his mother to live. Tiri returned home and shot three jaguars. The jaguar with the 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 four-eyed jaguar may be seen today on the moon (the spots of the moon).

The hero Tiri opened a big clearing for the mother of the jaguars. He created a companion by breaking off a toenail and changing it into a man, Karu. Tiri and Karu gave salt to a bird that carelessly left it in the open. A heavy rain melted it, and since then the *Yuracare* have had no more salt in their forests.

A 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 it was his own son. Because of Karu's rash action, men are mortal.

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

The ancestors of the *Mansino*, *Soloto*, *Quechua*, and *Chiriguano* emerged from a cave where they had hidden from a man-killing serpent, which a stork killed at Tiri's orders. Tiri closed the cave to prevent a great chief from coming out, and a serpent has since guarded it. The people scattered. The *Chiriguano* seized arrows which fell from the sky, and people have since quarreled.

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. On the fourth trip, from the west, the bird returned with beautiful new plumage. Tiri went to the west, where he lives with people who, upon reaching old age, rejuvenate.

In *Mosetene* mythology (Nordenskiöld, 1924 a), Dohitt, the creator and culture hero, who attained the dignity of the Christian God, made the earth in the form of a raft supported by spirits and created men from

clay dolls. After retiring to the sky, Dohitt and his companion, Keri,³ the white condor, visited mankind again, descending a rope of mucous. Dohitt reached the earth, but Keri was killed when the rope broke, and Dohitt transformed his head into a fish. Dohitt then traveled about transforming men into animals and birds.

Dohitt is more trickster than culture hero. He borrowed feathers to fly, lost them, and fell on a tree. To get down, he became small enough to ride on a caterpillar, but was dropped and impaled on a bamboo. A wildcat rescued him, but a shaman pinned him to the ground where, struggling to free himself, he caused an earthquake. He made an enormous basket full of water and sent his enemy, the shaman, and other men with similar baskets of water to create rivers in different parts of the world. Even now storms occur when Dohitt orders the shaman to spill water.

As culture hero, Dohitt gave mankind agriculture. Sonyó, following Dohitt, discovered fields of maize, manioc, and other plants.

The *Mosetene* recount that the sky once fell on the earth, but was put back and held up by a serpent. A flood was caused by a man who seduced a woman who was bathing; angered at not finding the child she bore, he made the river flood the world, and only a few people on a mountain were saved.

The Milky Way is a huge worm. Once when it was small, it was picked up by a man as a pet. The worm could be fed only with hearts, first of animals, then of men. After vengeful people had killed his master, it destroyed them and went to the sky. The stars of the Milky Way are arrows which men shot at the worm when he wound himself around their village. The rainbow is the child of a woman and a water man.

Other tales are of monsters and spirits: A man was swallowed by a serpent, but cut its heart and escaped; a man killed by a serpent, was avenged by his son, who transformed himself into an eagle and piled four mountains on top of each other to reach the serpent; a woman married a jaguar who wanted to eat her relatives, but was induced to climb a tree and was killed; a jaguar, the spirit of the chima tree, pursued men for eating the green fruits.

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³ Keri is perhaps an *Arawak* mythical hero, for Keri in several *Arawakan* dialects means "moon," and the *Bacári* have a culture hero of the same name.

THE LECO

HISTORY

The *Leco* (*Chuncho*) lived along the Kaka (Huanay) River and its tributaries, the Tipuani, Mapiri, Turiapo, and Yuyo Rivers (lat. 16° S., long. 68° W.; map 1, No. 3; map 2). That a branch of the Beni River between lat. 13° and 14° S. is called Río de Lecos may indicate a wider distribution.

For *Leco* sources, see Bibliography for *Apolista* (p. 506).

The first reference to the *Leco* figures in Miguel Cabello de Balboa's account (Maurtua, 1906, 8:140-141) written in 1594. In 1621, Fray Gregorio de Bolívar (Maurtua, 1906, 8:214) places them on the Cacamayo River, 25 leagues from Camata. At that time they traded with the Spaniards but occasionally raided them. About 1617, a sergeant of Pedro de Legui Urquiza's expedition attempted to conquer the *Leco*, but was defeated and killed. The *Leco* are often mentioned in the reports of the Franciscans who in 1680 settled in the Province of Apolobamba. They are said to have been distributed in 8 or 9 villages and to have numbered about 800. One of the first missions founded among them at the end of the 17th or beginning of the 18th century was destroyed by the Indians.

Among the 600 Indians of the Mission of Concepción de Apolobamba in 1690, some spoke the *Leco* or *Lapalapa* language. The Mission of San Antonio de Atén was started in 1763 with 380 *Leco* who later were taken to the Missions of Concepción de Apolobamba and of Santa Cruz de Valle Ameno; after clashes with the *Apolista*, they were returned to Atén in 1758. The *Ateniense*, or Indians of the Mission of Atén, were *Leco* according to several documents, but D'Orbigny (1839, 1:374) classifies them as *Tacanan*.

At the beginning of the 19th century, most of the *Leco* were concentrated in the Mission of Huanay at the junction of the Mapiri and Tipuani Rivers. In 1906, they numbered about 500. Their language is still classified as an isolated linguistic family.

CULTURE

Leco aboriginal culture is almost unknown. Maize and bananas formed their staple foods. Fish were shot or were drugged with the sap of the soliman tree (*Hura crepitans*). They prepared a kind of peanut chicha.

The *Leco* are skillful boatmen who specialize in transporting passengers and merchandise on the Beni River. They descend the river on rafts made of light, corky balsa, pinned together with palm spikes. Three of these rafts bound together with stout cross logs tied with strips of bark or vine form a type of craft called callapó.

Modern *Leco* huts have steep pitched roofs and bamboo walls. The main furniture is a sleeping mat.

Formerly, the *Leco* wore the long shirt, or *cushma*, sometimes dyed with the violet juice of *uchuri* (*Picramnia lindeniana*) (Weddel, 1853). Today they dress like Mestizos. Sometimes they wear a band necklace of bright beads. Men used to wear their hair long and to paint themselves with *urucú* and *genipa*.

In the 17th century, they were armed with bows, arrows, clubs, and shields.

The *couvade* is reported among the modern *Leco*. Residence probably was matrilocal since parents of a woman are said to have been supported by her husband.

APOLISTA OR LAPACHO

Nordenskiöld collected in 1908, in the Mission of Concepción de Apolobamba, a short vocabulary of a language spoken by a few individuals in a region where *Quechua* was the predominant language. A comparative study of this vocabulary by Créqui-Montfort and Rivet (1913 c) shows that it contains enough *Arawakan* radicals to be classified as a dialect of that linguistic family.

Little is known of the *Apolista*. Their name was coined only a hundred years ago by D'Orbigny when he found 2,775 of them in the Mission of Apolobamba (founded in 1690) and 841 in the Mission of Santa Cruz del Valle Ameno (founded in 1720). Armentia (1887-88, p. 5) states that the *Apolista* language was spoken in the Mission of San José near Tumupasa, but that in 1871 only two Indians still could understand it.

Who were the *Apolista*? The Mission of Concepción de Apolobamba had Indians belonging to three linguistic families: the *Aguachile*, the *Leco*, and the *Pamaino*. The last come from the Tuichi and Béni Rivers and probably spoke *Tacanan*, which, like *Lcco*, was supplanted by *Quechua* in the missions.

The *Aguachile* are always listed with the *Leco* as the main tribes of the district of Apolobamba (lat. 15° S., long. 68° W.). In 1678, the *Aguachile* numbered about 1,000 and lived in 16 villages. The limits of their habitat cannot be defined accurately, but seem to have included the region where the Missions of Concepción de Apolobamba and Santa Cruz del Valle Ameno were founded. The bulk of the *Aguachile* probably occupied the mountainous ranges between the Beni and Tuichi Rivers called Altuncama or Chiru Choricha. Judging from their geographical distribution (map 2), the *Aguachile* and the *Apolista* were one and the same tribe.

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PLATE 41.—Chiriguano pottery and urn burials. *Top, left:* and *bottom:* Pottery making. *Top, right:* Urn burials at Caipipendi, Chaco, Bolivia. (Courtesy Alfred Métraux.)

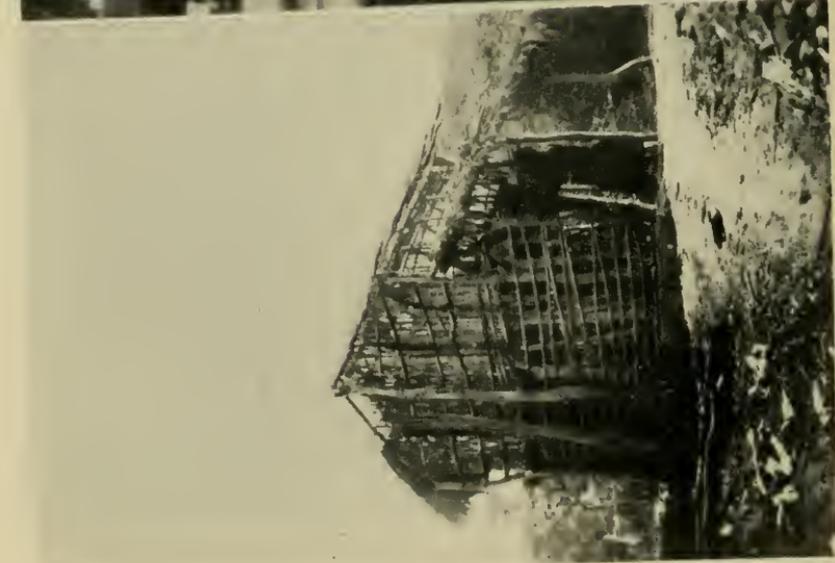


PLATE 42. — Chiriguano Indians. *Left:* Granary on piles. *Center:* Woman spinning. *Right:* Woman and child. (Courtesy Alfred Métraux.)

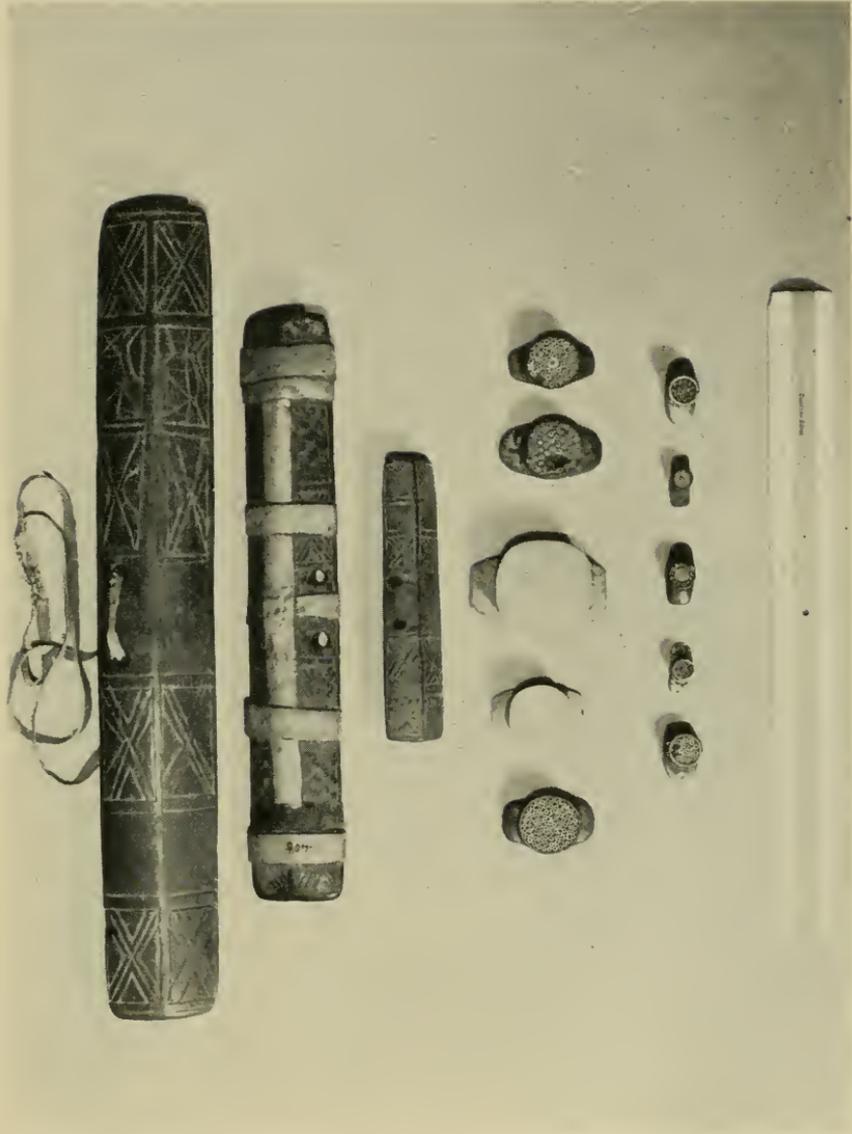


PLATE 43.—Chiriguano artifacts. Three engraved wooden serere whistles and lip plugs of metal with inlays. (Scale, 30 cm.) (Courtesy Museo Etnográfico de la Facultad de Filosofía y Letras, Buenos Aires.)



PLATE 44.—Wooden masks of the Chiriguano and the altiplano. *Top:* Chiriguano masks made of a single piece of wood. (The scale is 30 cm. long.) *Bottom:* Painted wooden masks, probably Chiriguano in origin. (Courtesy Museo Etnográfico de la Facultad de Filosofía y Letras, Buenos Aires.)

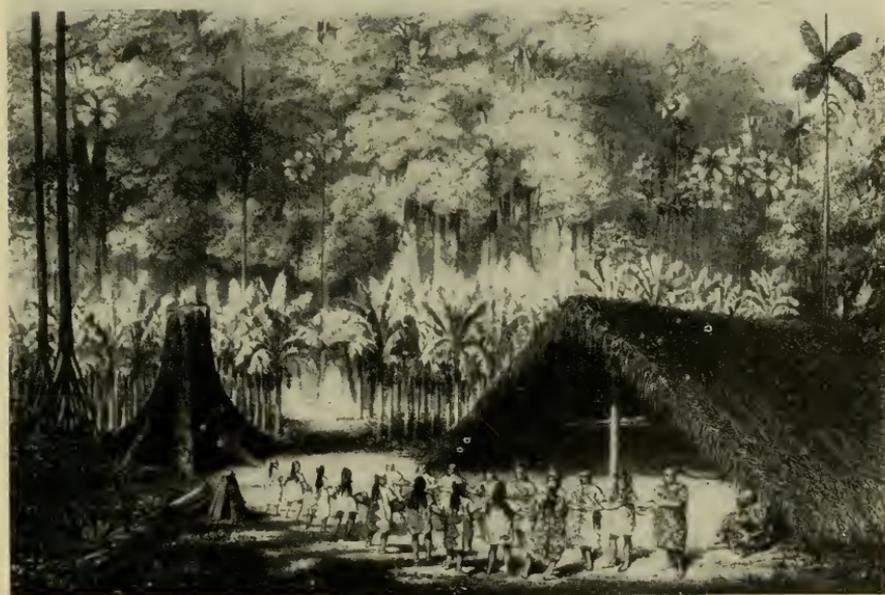


PLATE 45.—Yuracare Indians of the early 19th century. *Top:* Combat with dueling arrows. *Bottom:* Thatched house and dance. (After D'Orbigny, 1835-47.)



PLATE 46.—Modern Yuracare Indians. *Top:* Chewing yuca for chicha. *Bottom:* Women and children. (Courtesy American Museum of Natural History.)

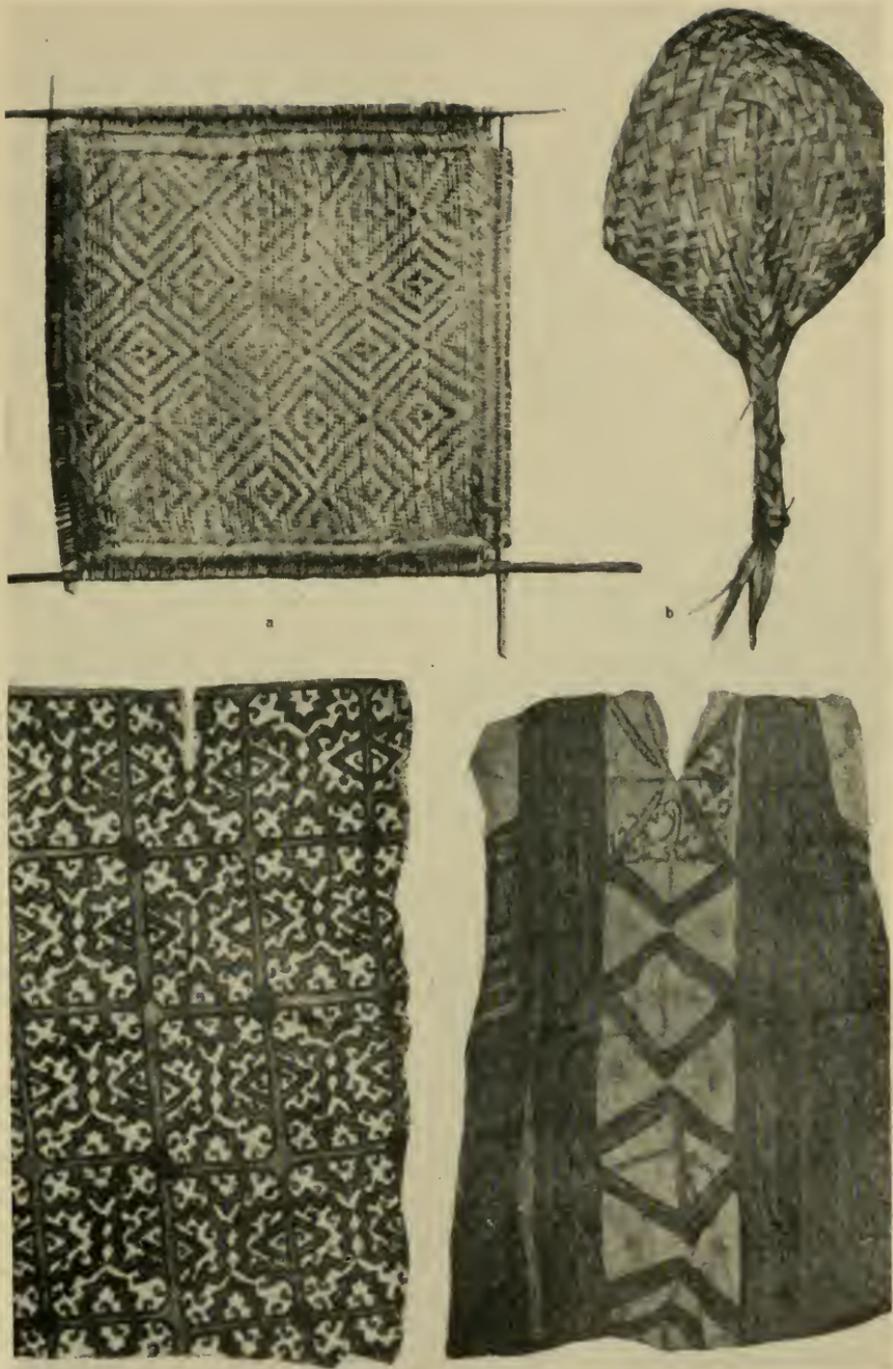


PLATE 47.—Chimane and Yuracare manufactures. *Top:* Chimane sieve and fire fan, both plaited from palm leaf. *Bottom:* Yuracare ceremonial clothes of bark cloth for men. (After Nordenskiöld, 1924.)