

## 1. Description

### 1.1 Name of society, language, and language family

Ayoreo, Ayoreo, Zamuco (1, 2)

Also known as the Ayoré, Ayoreóde (the name they use for themselves), Garaygosode, Guarañoca, Guidaigosode, Koroino, Moro, Morotoco, Poturero, Pyeta Yovai, Samococio, Sirákua, Takrat, Totobiegosode, Tsirakaua, Yanaigua, or Zamuco (1, 2)

### 1.2 ISO code (3 letter code from ethnologue.com): ayo (2)

### 1.3 Location

The northern Gran Chaco, in Bolivia and Paraguay, approximately between 16° and 22° S and 58° and 63° W (1, 3, 8)

### 1.4 Brief history

The Ayoreo have been relatively isolated until recently due to lack of easy access into the region and a hostile relationship with criollos. They were uncontacted until 1717, when Jesuit missionaries moved into the region, but the Jesuits were forced to leave the area in 1767 (4). Some Ayoreo groups remained uncontacted by the Jesuits (4). The Chaco War between Bolivia and Paraguay (1932-1935) brought people and disease into Ayoreo territory. In 1945 construction began on a railroad through their territory, bringing missionaries within reach. The Salesian missionaries made contact in the 1960s, the New Tribes Mission made contact in 1968, and Mennonite Colonies were established in the 1970s (5). Most groups of Ayoreo made contact with the missionaries after being decimated by disease and warfare, and most now live in one of 9 mission settlements in the region (4, 8). Genetic studies indicate that the Ayoreo are relatively genetically isolated from their neighbors in the Chaco region and beyond (6, 7).

### 1.5 Influence of missionaries/schools/governments/powerful neighbors

The Ayoreo were converted to Christianity, starting with the Jesuits in 1767 and more recently by other Catholic and Protestant missionaries (see question 1.4 for more) (1, 4).

### 1.6 Ecology

The northern Chaco is part of an alluvial plain with xeromorphic forest with trees 15-20 m tall and savanna with xerohygrophilic forest with trees 10-12 m tall (3). The average annual rainfall is between 400 and 1300 mm, with a dry season from May to September and wet season from October to April (3). Average annual temperatures are 20°-25°C (3). There are important salt mines in approximately the center of Ayoreo territory, which have been the cause of some conflict between bands (see 4.16 for more) The Ayoreo use their environment to practice slash and burn horticulture for part of the year and spend the time after harvesting and prior to the next season's sowing as nomadic hunter gatherers, with some reserves from the previous harvest (1,3).

### 1.7 Population size, mean village size, home range size, and density

The total population is between 2,500 and 4,300 (1, 2, 5). Camps contain approximately 6 houses with up to 10 occupants each, so bands are made up of 60 or less individuals (1). Bands travel around a region of approximately 333,000 square kilometers, with approximately 0.0075 inhabitants per square kilometer (1, 3)

## 2. Economy

### 2.1 Main carbohydrate staple(s)

The Ayoreo cultivate maize, beans, gourds, calabashes, potatoes, and tobacco and they gather edible roots and tubers, fruit, and palmetto (1, 3). More recently they have begun to cultivate new crops introduced at missions, such as watermelon, pineapple, banana, mango, citrus fruits, and papaya (3).

### 2.2 Main protein-lipid sources

The Ayoreo eat anteaters, armadillos, white-lipped peccaries, fish, and turtles (1). They also hunt tapir, jaguars, howler monkeys, ocelots, and other mammals for hides and other raw materials (1).

### 2.3 Weapons

Three kinds of lances, three kinds of sword-clubs, an elongated truncated conical club, and bows with three kinds of arrows (1)

### 2.4 Food storage

The Ayoreo have ceramic pots (aribaloid pitchers) and carrying bags of *caraguatá* fiber that can be used to store food (1). Seeds are kept in a receptacle made of the dry fruit of *duchubire* with *daju* threads as a stopper (3).

### 2.5 Sexual division of production

Men clear the land to be cultivated and sow the seeds while women harvest the crops (1, 3). Men do most of the hunting and fishing while women gather plant foods and may sometimes hunt turtles or armadillos (1). Men typically collect honey, but women may collect it from hives that can be reached from the ground (1). Men make tobacco pipes and weave pomói (resting bands that are strung around the lower back and behind the knees, used by men for sitting with drawn-up legs) (1). Women make clothing (see question 7.7), prepare food, and make pottery (see question 2.7) (1).

### 2.6 Land tenure

Land and other goods are considered to be owned by whoever put the work into it (1). If the work was done communally, the land or goods are collectively owned, such as in the case of a collective hunt (1). Cultivated land is controlled by the man who has worked it (as this is a male task) but it is later controlled by the women of his extended family who harvest the crops (1).

### 2.7 Ceramics

Women make a type of ceramic pot known as an aribaloid pitcher, which has a narrow opening on the top, is broad at the center, and is pointed at the bottom (1).

### 2.8 Specified (prescribed or proscribed) sharing patterns: No information found

### 2.9 Food taboos

There are food taboos for pregnant women, but details were not found (4). There are no taboos regarding the animals and plants claimed as belonging to each clan (5).

### 2.10 Canoes/watercraft? No information found

## 3. Anthropometry

### 3.1 Mean adult height (m and f) No information found

### 3.2 Mean adult weight (m and f) No information found

## 4. Life history, mating marriage

### 4.1 Age at menarch (f) No information found

### 4.2 Age at first birth (m and f)

No information found, although women who are considered too young to care for a child often commit infanticide (see 4.10 for more information).

### 4.3 Completed family size (m and f)

The mean number live births is 5.9 and the mean number of surviving children is 2.1, with both being the same in males and females (8). Much of the difference between live births and surviving children is due to a high rate of infanticide (see question 4.10).

### 4.4 Inter-birth-interval (f): No information found

### 4.5 Age first marriage (m and f)

Women marry at 18-20 years of age and men postpone even longer, however the Ayoreo become sexually active at puberty (4).

4.6 Proportion of marriages ending in divorce

No exact figures were found, but divorce is very uncommon among groups living near missions (1). Prior to missionary influence and in groups not living near missions, divorce was/is not uncommon, with marriages becoming more stable with age and after the birth of children (8). "A man can marry several women in succession, and as this number increases he receives more and more consideration from other members of the group. On the contrary, it is not regarded as proper for a woman to have had several husbands" (8 p. 257).

4.7 Percent marriages polygynous, percent males married polygynously:

No percentages were found, but monogamous marriages are much more common than polygynous (1, 7).

4.8 Arranged marriage, bride purchase/service, dowry

Marriages are decided by the couple and are without ceremony (1, 4). Ideally the man gives his wife's parents a gift, but this is not frequently done (4).

4.9 Inheritance patterns

Iron items are the only inherited items and are inherited by the widow and used by the extended family. Land is considered owned by the person who works it, so it is not a heritable good. Other possessions become grave goods when the owner dies (1).

4.10 Parent-offspring interactions and conflict

Infanticide was previously practiced with a rate as high as .38, but missionary influence has made this practice socially unacceptable (4). When infanticide occurred, it was a decision made by the mother and close kinswomen for the following reasons: the child was deformed, twins were born, the child was born too soon after another birth, the termination or expected termination of the mother's marriage near the time of birth, the woman was too young and unprepared to accept the responsibilities of motherhood, or the child was the result of an extramarital union (4, 8). In the event that twins are born, they are killed because of an Ayoreo myth about twin brothers in which one twin was evil. "Both twins must be killed in order to avoid keeping the bad twin" (4 p. 511). When a woman gives birth, her kinswomen dig a hole in which to place the afterbirth. If the newborn is not wanted for one of the above reasons, it is buried in this hole without ever being touched by human hands (4). The Ayoreo do not practice sex-selective infanticide; the sex ratios of infanticide victims and newborns are the same (4).

4.11 Homosexual activities, social attitudes towards homosexuals: No information found

4.12 Pattern of exogamy (endogamy)

The Ayoreo practice clan exogamy, with an estimated 5% of marriages violating the practice (7, 8).

4.13 What is the belief of the role of males in conception; is paternity partible? Are these "other fathers" recognized?

No evidence of partible paternity. The father contributes white substance to the child (bone and mother's milk) (4).

4.14 What is the belief of the mother's role in procreation exactly? (e.g. "receptacle in which fetus grows")

The mother contributes red substance to the child (blood) (4).

4.15 Is conception believed to be incremental process (i.e. semen builds up over time)?

Conception is believed to be incremental, with repeated copulation necessary (4). "Once pregnancy is detected, sexual relations are taboo until the new child is able to walk and talk. Coitus is thought to adversely affect the mother's milk and, hence, the health of the child." (4 p. 507)

4.16 Occurrence of sexual coercion, rape: No information found

4.17 Preferential category for spouse (e.g. cross cousin)

The Ayoreo do not have preferential categories for spouses; anyone other than a sibling or member of one's own clan is a suitable spouse (8).

4.18 Do females enjoy sexual freedoms?

Women initiate romantic affairs (4). Men cannot speak directly to non-kin women, but can use his sisters as go-betweens when he is interested in a woman (4). Young people typically have multiple romantic relationships before marrying, however the Ayoreo believe that a woman should not change partners too often (4).

4.19 Evidence of giving gifts to extramarital partners or extramarital offspring

Extramarital sex is socially unacceptable and resulting children may be killed upon birth (4, 8).

4.20 If mother dies, who raises children?

The woman's family may raise her children, or they may be killed if they are newborns (8). Adoptions are also common, typically by couples with no children or children of only one sex, but the child and parents should be of the same clan (8).

4.21 Adult sex ratio: number of adult males divided by number of (reproductive) females

The sex ratio is over 100 males to females (8).

4.22 Evidence for couvades: No evidence found

4.23 Different distinctions for potential fathers (e.g. lesser/younger vs. major/older): No evidence found

4.24 Kin avoidance and respect?

In an uxorilocal group, the father of the married women has the most authority and is accorded some measure of respect (8).

4.24 Joking relationships?

There is somewhat of a joking relationship between men of paired clans, who call each other "my wife" (5). See question 5.7 for more information.

4.25 Patterns of descent (e.g. bilateral, matrilineal) for certain rights, names or associations

Clan membership is patrilineal, despite the fact that residence is matrilineal (1, 8).

4.26 Incest avoidance rules

The Ayoreo tend to marry distant kin, avoiding siblings, first cousins, and second cousins (5). The Ayoreo also practice clan exogamy (8). They must marry outside their patrilineal clan and also try to avoid marrying inside their mother's clan (5).

4.27 Is there a formal marriage ceremony?

There is no marriage ceremony (1, 4).

4.28 In what way(s) does one get a name, change their name, or obtain another name?

A newborn is named by the *upurigado*, the woman who washes it just after birth and who is ideally the maternal grandmother (4). Parents and grandparents receive new names after the birth of a first child or first grandchild, with the mother taking the name of the newborn plus the suffix *-date*, father adding the suffix *-de*, grandmother adding the suffix *-dacode*, and grandfather adding *-dakide* (4, 8). Some individuals may also have nicknames or adopted Spanish names (8).

4.29 Is marriage usually (or preferred to be) within community or outside community? (m/f difference?)

The Ayoreo practice clan exogamy but there are no preferential exchanges between certain clans (8).

4.30 Are marriages arranged? Who arranges (e.g. parents, close kin)?

Marriages are not arranged and are contracted by the couple (1, 4, 8).

4.31 Evidence of conflict of interest over who marries who?

Parents sometimes disapprove of the individual their child chooses to marry and have expressed regret that they cannot make the choice themselves (4).

### Warfare/homicide

4.14 Percent adult (male) deaths due to warfare

No percentages available, but "violent deaths are relatively common" (8 p. 253).

4.15 Out-group vs. in-group cause of violent death

Most violent deaths are caused by members of other hostile Ayoreo bands or by criollos (1).

4.16 Reported cases of in-group and out-group killing

Ayoreo fight against other Ayoreo and *Konhióne* (which refers to criollos and Europeans) and gain status from killing (1). Headmen achieve their position by killing more people and thus being more courageous than other warriors. Sometimes young Ayoreo men or women are kidnapped, but *Konhióne* are always killed (1). Fighting may also be caused by conflict over the salt mines located near the center of their territory, which have been fought over by northern and southern bands of Ayoreo (1).

4.17 Number, diversity, and relationship with neighboring societies (external relations)

The Ayoreo are relatively isolated and have few neighbors. The Chamacoco (or Ishír) also live in the northern Chaco and also belong to the Zamuco language family (1). Neighbors are typically unwilling to trade with the Ayoreo due to an Ayoreo desire to steal metal tools and engage in violence (1, 8).

4.18 Cannibalism? No evidence found

**5. Socio-Political organization and interaction**

5.1 Mean local residential (village) group size

A village can have up to 6 houses with up to 10 individuals in each, for a maximum group size of 60 (1).

5.2 Mobility pattern (seasonality)

The Ayoreo are partially nomadic (except those who are settled at missions), practicing slash and burn horticulture for part of the year and spending the rest of the year as nomadic hunter gatherers (with some reserves from the last harvest). As the planting begins, the Ayoreo establish a semipermanent village, which will be abandoned after the last of the crops have been harvested (1, 8).

5.3 Political system (chiefs, clans, etc., wealth or status classes)

There are 7 Ayoreo clans, the Chikenoi, Etacore, Pikanerai, Dosapei, Kutamurajá, Posorajá, and Juuminí (1, 3). These patrilineal clans are ranked hierarchically based on the numbers of people and beings that belong to them (1). Each has a special sign (*edopasáde*) (1).

5.4 Post-marital residence

The Ayoreo were previously uxorilocal, but now many live in nuclear families rather than extended families (4, 5). The core grouping in the uxorilocal practice was a central couple, their single children, married daughters, and their husbands (4). The rule of uxorilocality could be violated if the parents of the husband had high social status (8).

5.5 Territoriality? (defined boundaries, active defense)

There is conflict over the salt mines in the center of Ayoreo territory (1).

5.6 Social interaction divisions? (age and sex): No information found

5.7 Special friendships/joking relationships

Ayoreo clans are divided into pairs (with some overlap since there are 7 clans) and the men of these paired clans refer to each other jokingly as “my wife” or *yacote* (5 p. 208).

5.8 Village and house organization

Ayoreo semi-permanent villages consist of circular huts with a diameter of 2 to 3 meters, “constructed by leaning poles against each other, covering them with branches and earth to form the roof, and leaving the sides open” (5 p. 188).

5.9 Specialized village structures (men’s houses): No information found

5.10 Sleep in hammocks or on ground or elsewhere?

In the temporary camps used during nomadic periods, the Ayoreo usually sleep on the ground around their camp fires (8). Sometimes they make platforms or beds of poles and place hot embers underneath to keep warm at night (5). No information was found about sleeping arrangements in the semi-permanent villages.

5.11 Social organization, clans, moieties, lineages, etc.

There are 7 patrilineal Ayoreo clans, the Chikenoi, Etacore, Pikanerai, Dosapei, Kutamurajá, Posorajá, and Juuminí (3).

#### 5.12 Trade

No trade with neighboring groups, in part because the Ayoreo have at times stolen iron tools from their neighbors and acted toward them with hostility (1, 8)

#### 5.13 Indications of social hierarchies?

The seven clans are ranked hierarchically (1). Additionally, certain individuals have higher social status. Chiefs (*asuté*), shamans (*daihsnáí*), and dreamers (*uritái*) have the highest social status (1).

Women can be shamans and dreamers, but not chiefs (1). The “chief” is actually better classified as a headman who achieves his prestige from being courageous and from the number of people he has killed (1).

### **6. Ritual/Ceremony/Religion (RCR)**

#### 6.0 Time allocation to RCR: No information found

#### 6.1 Specialization (shamans and medicine)

The Ayoreo have shamans, who may be men or women (1).

#### 6.2 Stimulants: Tobacco juice

#### 6.3 Passage rituals (birth, death, puberty, seasonal)

At birth, a woman and her kinswomen go off away from the camp or village. The *upurigado* (ideally the maternal grandmother of the infant) washes it just after birth and names it. The women dig a hole in which to place and bury the afterbirth (4). This hole may also be used if the infant is killed (see question 4.10 for more information).

An Ayoreo girl goes through a puberty ritual, where she makes an incision on her abdomen to symbolize that she is ready to withstand the pain of childbirth and she can begin wearing a woman’s skirt and decorating herself with adornments reserved for single women (4). Ayoreo boys do not have a puberty ritual but begin wearing a man’s belt and styling their hair as the men do (4). No other passage rituals were described.

#### 6.4 Other rituals

The Ayoreo have a ritual called *pinčiakwá* to bring rain and *paragapidí* to protect killers from being harmed by a victim’s soul and blood, which are believed to be contaminants (1).

#### 6.5 Myths (creation)

The Ayoreo believe the world was originally inhabited by beings called *Jnani Bajade*, which were Ayoreo ancestors (5, 9). These ancestors were transformed into different species of plants and animals by the sun god Dupáde (9). These species were divided between the 7 clans. There are no particular obligations or taboos regarding the species belonging to the clan (5).

#### 6.6 Cultural material (art, music, games)

The Ayoreo have twine bags and plaited objects which are decorated in clan symbols (1). They also decorate wooden artifacts and ceramics (1). They have songs which are sung in ritual contexts and by shamans for therapeutic purposes (1, 9).

#### 6.7 Sex differences in RCR

The Ayoreo allow both men and women to be shamans, though more often shamans are men (1).

Women are involved in some rituals that men are not, such as birthing and puberty rituals (see question 6.3 for more information).

#### 6.8 Missionary effect

Missionaries have attempted to settle and convert the Ayoreo to Christianity, though the Ayoreo still hold onto their traditional myths (5). Missionaries have also attempted to end the practice of infanticide (4, 8). However, some researchers report that infanticide still occurs, but hidden from missionaries (8).

#### 6.9 RCR revival: No information found

#### 6.10 Death and afterlife beliefs

The Ayoreo believe that at death, the body and mind are destroyed while the soul moves to the underworld (9).

6.11 Taboo of naming dead people? No information found

6.12 Is there teknonymy?

The Ayoreo practice teknonymy. Parents and grandparents receive new names after the birth of a first child or first grandchild, with the mother taking the name of the newborn plus the suffix *-date*, father adding the suffix *-de*, grandmother adding the suffix *-dacode*, and grandfather adding *-dakide* (4, 8).

6.13 Briefly describe religion (animism, ancestor worship, deism, magic, totems etc.)

Ayoreo religion incorporates a sun deity, Dupáde, and important ancestors who were transformed by Dupáde into the various plant and animal species (9). Certain species are associated with certain clans (5).

## 7. Adornment

7.1 Body paint: No information found

7.2 Piercings: No information found

7.3 Haircut

Men have a haircut distinct from that of boys (4).

7.4 Scarification: No information found

7.5 Adornment (beads, feathers, lip plates, etc.): No information found

7.6 Ceremonial/Ritual adornment: No information found

7.7 Sex differences in adornment

Men wear a public cover made of strings and feathers that have been fastened to a waist string and women wear skirts of plaited string (1). Pre-adolescent boys and girls do not wear these (4).

7.8 Missionary effect: No information found

7.9 Cultural revival in adornment: No information found

## 8. Kinship systems

8.1 Sibling classification system: No information found

8.2 Sororate, levirate: No information found

8.3 Other notable kinship typology, especially cross-cousin (MBD/FZD) typology (Crow/Hawaiian/Omaha etc.)

Bifurcate generation kinship (1)

## 9. Other interesting cultural features (list them)

- The Ayoreo often commit suicide upon reaching old age or after long periods of illness (1, 8).

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