Aaron Groth

Peoples and Cultures of the Amazon (ANTHROPOLOGY 7680)

1. Description

1.1 Name of society, language, and language family:

Aguaruna (Aguajún, Ahuajún, Awajún)

Shuar subgroup: Achuar-Shiwiar, Shuar, Huambiza (Wambisa)

All of the Jivaroan Language Family

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

Achuar-Shiwiar (acu); Shuar (jiv); Huambiza (hub); Aguaruna (agr)

1.3 Location (latitude/longitude):

"The territory of the Jivaros can be encompassed between latitudes 2° S. and 5° S. and longitudes 76° [W.] and 79° [W.]" (Stirling 1938, 1).

(acu) The Achuar inhabit the northwest Loreto Region on the Ecuador border, between Morona and Tigre Rivers in Peru. In Ecuador, the Achuar inhabit Pastaza Province, Pastaza canton, Montalvo and Simón Bolívar communities; Morona-Santiago Province, Taisha canton, Huasaga. Between Macuma and Conambo rivers, north to Copataza, Montalvo, and Conambo communities, south to the Peru border (Lewis et al. 2013).

(acu)The Achuar inhabit the Morona, Macusari, Tigre, Huasaga, and Corrientes Rivers in Peru, and the Pastaza and Bobonaza Rivers in Ecuador (Wise 1999, 309).

(acu) Achuar territory "roughly ranges between 2 degrees 30' and 3 degrees 25' S. latitude and between 77 degrees 40' and 76 degrees 20' W. longitude" (Ross 1988, 13).

(jiv) The Shuar inhabit Ecuador between the Pastaza and Marañón rivers, east of Cuenca City (Lewis et al. 2013). According to Wise, the Shuar inhabit the Morona-Santiago Province in Ecuador (1999, 309).

(hub) According to Lewis, the Huambiza inhabit the high jungle of the Andes along Morona and Santiago rivers (2013). "Huambisa villages begin at the community of Galilea on the lower Santiago River and extend northward along the upper reaches of the Santiago and its tributaries to the Ecuadorian border" (Berlin and Berlin 1983, 302).

(agr) According to Lewis the Aguaruna inhabit the upper west Marañon river area, and the Potro, Mayo, and Cahuapanas Rivers (2013). "Approximately 1500 Aguaruna Indians inhabit the Alto Mayo Valley in the Department of San Martín, Peru" (Works 1985, 1).

(agr) "Approximately 20,000 Aguaruna (Uriarte 1976)" inhabit "communities beginning around the Pongo de Rentema and extending below the Pongo de Manseriche (on the Marañón River proper), as well as along the river's major tributaries – the Cenepa, Comainas, Numpatkaim, lower Santiago, Apaga, and Potro. Some Aguaruna are to be found of the upper Mayo River, a tributary of the Huallaga" (Berlin and Berlin 1983, 302)

1.4 Brief history:

"Shortly before the arrival of the Spaniards on the Ecuadorian coast in 1527, an Inca emperor, Huayna Capac, led an army to conquer the Jivaroans (probably Jívaro or Aguaruna) inhabiting the region known as 'Bracamoros.' The invasion, which probably took place in the drainages of the upper Zamora and Chinchipe rivers, was met by such a fierce resistance that Huayna Capac had to flee ignominiously back to the Andean highlands, attempting to placate his pursuers with gifts as he retreated" (Harner 1972, 17). Gold found in the headwater streams of the Santiago River:

was probably the factor that drew the region to the attention first of the Incas and later the Conquistadors, who lost little time in identifying the source of the precious metal that they found in such abundance among the inhabitants of ancient Peru. During the 16th century, the Jivaro-Shuar took little interest in the intrusions of the Spanish. Rather, they were too busy engaging in their own traditional forms of intertribal warfare. Eventually, the Spanish were able to establish themselves as suitable enemies, attempting to make inroads into Jivaro-Shuar territory and colonize the indigenous populace. After enduring roughly 30 years of colonization and systematic oppression, however, the Jivaro-Shuar engaged in a unified revolt in 1599 that won them enduring freedom from foreign rule despite continuous subsequent efforts to exploit their territory. Specifically, throughout the 17th through early 20th centuries, the Jivaro resisted both military incursions and attempts at civilian settlement, whether motivated by mineral or agricultural interests. (Jandial et al. 2004, 1216)

"Beginning around the 1830s, the Aguaruna and the Huambisa initiated a series of devastating raids on Peruvian frontier towns in their area, obliterating some towns completely and often causing other towns to relocate. The Aguaruna and the

Huambisa were involved in the 1880-1915 rubber boom, and the Aguaruna were engaged in head-hunting raids. The explorer F. W. Up de Graff provides a detailed eye-witness account of an Aguaruna tsantsa raid from this period that illustrates how manufactured valuables (provided by himself in this case) could stimulate violent action. From about 1950 to 1970, many Aguarunas and Huambisas labored for Peruvian patrones, often under exploitative conditions" (Steel 1999, 773).

(hub, agr) "In 1901, the Huambisas were still the scourge of the Santiago Basin, forcing the precipitous retreat of some American miners who had ascended the river in hopes of locating the famed placer gold deposits. In contrast, the Aguarunas and Antipas, whom the miners encountered on the Alto Marañón, were found to be inordinately hospitable, especially 'fond of European trade goods' and eager to exchange garden produce, salt, and even gold for them in some instances' (Ross 1984, 92).

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

- (jiv) "The encounter with the Ecuadorian national society has been successful for the Shuar, in part, because of their ability to accept some features of the dominant culture without becoming subservient to the dominant group. The Federation, founded over 20 years ago by a few Shuar in the Upano Valley, has been the principal instrument in preventing the Shuar from becoming a colonized people, dominated by the larger, more powerful population of the region" (Hendricks 1988, 217).
- (jiv) "The Salesian order came to Ecuador at the end of the nineteenth century and vigorously expanded its activities throughout the southern lowlands, establishing basic facilities such as schools, mission center, and churches for colonist and Shuar alike" (Salazar 1981, 590).
- (acu) "Within the last decade the fiercely independent Achuar have come under the influence of two rival missionary organizations: The Catholic Salesian mission based in Macas and a joint group of Protestant evangelical sects, headed by the Gospel Missionary Union, based in Macuma. Both missions have fomented the creation of putative "independent" native organizations: Federación de Centrol Shuar and Associación Independiente del Pueblo Shuar del Ecuador (AIPSE) respectively.
- (acu) "Although the missions form the main front where the dominating and dominated modes of production meet, they are not the only locus of articulation. The Achuar have long been interacting with traders and with the Ecuadorian army. North of the Pastaza the army has indirectly affected the Achuar mode of production by limiting contact with the Peruvian Achuar, thereby constraining commercial traffic between Ecuador and Peru, and through its Quichua garrison colonies, infectious diseases have been introduced and spread. Although south of the Pastaza, in Morona-Santiago, the army forced the Achuar and Shuar to contribute collective labor, in Pastaza the Canelos Quichua colonies long established around the military garrisons provided whatever labor the army needed, and the northern Achuar were thus spared this form of exploitation. The Ecuadorian army has generally avoided direct interference in native Achuar affairs, particularly in conflicts and intergroup warfare" (Taylor 1981, 648).
- (acu) "In addition to residential nucleation the major innovations introduced by both organizations [Protestants and Catholics] are cattle raising and breeding, mission control of access to manufactured goods, and formal education" (Taylor 1981, 653).
- (acu) "Unlike the Shuar Jivaro in Ecuador or the Aguaruna Jivaro in Peru, at no point do they have any direct contact with a solid frontier of colonization" (Descola 1994, 21).
- (jiv) In 1969 Harner reports, "[m]issionaries have collaborated with the military and police forces both west and east of the Cutucú range to largely halt intra-tribal assassinations as well as warfare with the Achuar. In recent years, men who have engaged in such traditional raids have often been seized and sent off to an uncertain future in prison in the Ecuadorian highlands" (1972, 210).

1.6 Ecology:

The Shuar, Huambisa, and Aguaruna inhabit the Andean piedmont (tropical montaña), while the Achuar inhabit the lowland rainforest, *hylea amazonica*.

In general the country is mountainous, as it includes the lower slopes of the eastern Andes to the point where they fall away into the vast Amazonian plain. Parts of this stretch of territory are comparatively level, particularly in the lower valley of the Santiago. Lying as it does just below the equator, the region is one of heavy rainfall and the entire country is cloaked with a dense tropical jungle. For the most part the climate is healthful and, considering the latitude, the temperatures are fairly cool. Travel is difficult and disagreeable during the rainy season, which extends from March until October. Travel overland is by means of rough foot trails, while the rivers, which in large part are navigable by canoes, form the principle avenues of travel. (Stirling 1938, 1)

(acu) "In clearcut opposition to the Shuar and Canelos Quichua, the Achuar occupy a truly [A]mazonian biotype with altitudes varying between 400 meters (mesas and hills) and 250 meters (alluvial valleys), annual average isotherms superior to 23° C, and rainfalls ranging from 2,000 to 3,000 millimeters yearly. The Puyo area, for example, has an altitude of over 600 meters and receives well over 5,000 millimeters of annual rainfall. From a phytogeographic standpoint, the natural

Achuar habitat is the great *hylea amazonica* and not the tropical montaña, home of the Jívaro proper, whom Achuar typically call Muraya Shuar, 'hill people' (Descola 1981, 615).

(agr, hub) "The Aguaruna and Huambisa ... occupy the greater upper Marañón River drainage, an area of Peru's northcentral montaña. It is an area of sharply rising ridges cut by relatively fast moving streams, especially in the western edge of the territory. Elevations range from 200 to 2000 m. Mean annual temperatures are around 25° C and annual precipitation is nearly 3000 mm (Berlin and Berlin 1983, 302).

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

"The great Jívaro block, now numbering at least 70,000 individuals, is divided into several major dialect groups (Aguaruna, Shuar, Huambisa, Achuar, and 'Main Shuar,' or Shiwiar of the Tigre-Corrientes) spread over an immense territory bounded on the north by the Bobonaza, on the east by the valley of the Pastaza, on the west by the Andes, and on the south by the Río Mayo" (Taylor 1999, 191).

- (acu) The Achuar number 7,000 between both Ecuador and Peru (with 3,000 of them in Peru) (Lewis et al. 2013).
- (jiv) The Shuar, according to a 2007 census conducted by CODENPE, number 35,000 (Lewis et al. 2013).
- (hub) The Huambiza number 9,330 individuals according to a 2000 census (Lewis et al. 2013).
- (agr) According to a 2000 census by the Summer Institute of Linguistics, the Aguaruna number 38,300 (Lewis et al. 2013).

(acu) "Where contact has not drawn them to a major river of stimulated nucleation around a mission, the Achuarä today settle in clusters of small, highly dispersed communities overlooking headwater and tributary streams flowing through their territory. This pattern of dispersion is seldom altered, except on rare occasions when allied communities nucleate in response to intense hostilities. And yet, such larger aggregations are not without historical precedent. In some areas, such as the northern zone of contemporary Achuarä habitation, villages commonly ranged up to 150 persons in the mid-nineteenth century" (Ross 1984, 98-99).

(hub) Berlin and Berlin undertook research in a Huambisa village that "occupies the banks of small, meandering tributary of the Santiago, about 4 hours by canoe from the confluence of the stream with the major river. Huambisa populations along the broad Santiago valley are widely dispersed, although many are now grouped into villages. Most of the Huambisa at our study site reside in the immediate vicinity of the main settlement, with a population of about 50. The creek as a whole is quite sparsely settled with long stretches uninhabited" (Berlin and Berlin 1983, 304).

(agr) "The two Aguaruna communities lie on the middle reaches of the Cenepa River, about 100 km southwest of the Santiago. The Cenepa flows much more rapidly that the Santiago and is broken in places by short rapids" and the village of "riverine Aguaruna," lies at the confluence of a small creek with the Cenepa itself. The village was established 15 years ago, when a school was founded and part of the Aguaruna occupying the upper portions of the creek were induced to settle downstream at the creek's mouth. The population was 180 in 1973 and had expanded to 265 by 1975. "The second Aguaruna site is located approximately 20 km upstream form the riverine Aguaruna. We refer to this group as the 'interior Aguaruna.' People here live more traditionally than the riverine village. The estimated population for this site is about 75 people" (Berlin and Berlin 1983, 304).

2. Economy

- 2.1 Main carbohydrate staple(s): Sweet Manioc is the staple. Yams, taro, cocoyams, sweet potatoes, peanuts, and number of other cultigens are usually planted (Brown and Van Bolt 1980, 170).
- (agr) The Aguaruna have adopted commercial rice cultivation in the Alto Mayo River Valley (Works 1985, 1).
- (agr, hub) "Both the Aguaruna and Huambisa practice swidden horticulture, and sweet manioc and plantains and bananas are the staple corps" (Berlin and Berlin 1983, 302).
- 2.2 Main protein-lipid sources: Hunting and fishing (Harner 1972) (Descola 1996).
 (agr, hub) "Major animal food resources come from fishing and hunting, although both groups are turning increasingly to animal husbandry" (Berlin and Berlin 1983, 302-303).
- 2.3 Weapons: Bow and arrow, blowguns?

Simson in 1880, reported the Jívaros used spears of chonta (sometimes furnished with an iron head), blow-guns for small game and birds, and some warriors used shields (387). "Each warrior brings with him both a *chonta* spear for battle and a blowgun for hunting..." (Jandial et al., 2004, 1217). "[D]uring the sixteenth century the Jivaros used lances, spear

throwers, and bows and arrows. Sometime during the latter part of the seventeenth century the bow and arrow and the spear thrower began to go out of use, being replaced by the blowgun with poison darts" (Stirling 1938, 79).

2.4 Food storage: No information encountered.

2.5 Sexual division of production:

- (agr) "The bulk of Aguaruna subsistence is cultivated by women in mixed gardens of sweet manioc and other tropical tubers (sweet potatoes and yams)" (Works 1985, 3).
- (agr) Aguaruna men clear the gardens and may plant maize at the center or plantains at the perimeter (Brown and Van Bold 1980, 170).
- (jiv) "Three kinds of baskets are made, all by the men: a plaited openwork basket used primarily for carrying and storing food; a wickerwork type for carrying fish; and relatively insect proof plaited and double-walled basket with a banana leaf lining and cover for storing featherwork and other personal effects. Matting is unknown" (Harner 1972, 67).
- (jiv) "Weaving, done in almost all houses, is exclusively a man's task. Men, compared to women, in Jívaro society, tend to have much more leisure time, which may help account for the fact that they do the spinning, dyeing, and weaving" (Harner 1972, 68).

2.6 Land tenure:

(agr) Among the Aguaruna, "[t]he typical compound contains up to three structures housing a husband and one or two wives (often sisters), children, and other kin (in-laws, siblings and cousins). Nucleated house clusters of related members are approximately one kilometer distant from each other" (Works 1985, 3-4). The Peruvian Military Government (1968-1975) under President Juan Velasco created SINAMOS to control social mobilizations and support indigenous rights. "SINAMOS was able to push through title to eight native communities comprising nearly 60,000 hectares of land for the Aguaruna in the Mayo Valley" (Works 1985, 5). "Before titling [land] the Aguaruna lived in the forest with essentially unlimited access to its resources. After titling the forest became property and it had boundaries. Land titling reoriented the Aguaruna spatially and also initiated economic change. The forest came to be perceived as a limited area and the land itself became an object of value" (Works 1985, 7).

2.7 Ceramics:

(agr) Works mentions Aguaruna use of ceramic vessels for cooking and eating (1985, 4).

2.8 Specified (prescribed or proscribed) sharing patterns:

(acu) "Because it frequently serves to set up or cement political alliances, the exchange of gifts does not solely concern ritual friends. Whoever the partners involved may be, the code for the transactions remains identical. It is always on the occasion of visits that gifts and counter-gifts are presented, in an apparently spontaneous fashion. Very seldom does one hear any precise request made. Similarly, thanks are neither given nor expected when an object changes hands, and the two partners hasten to continue their conversation as though nothing had happened. Furthermore, it would be in extremely bad taste to offer a gift in exchange immediately, as that would imply a desire to free oneself as soon as possible from the obligations that stem from any debt and so would constitute a tacit rejection of the relationship of mutual dependence that is instituted by a gift – in short, it would virtually amount to a declaration of hostility" (Descola 1996, 245)

2.9 Food taboos:

- (agr) "Women should not eat any kind of bird's foot (e.g., of chicken, guan, or curassow) on days when they are planting a new garden, lest the growing tubers stay thin and unpalatable" (Brown and Van Bolt 1980, 183). When planting a garden, Aguaruna women do not drink water when thirsty but only manioc beer (Brown and Van Bolt 1980, 183).
- (jiv) "[T]he Jívaro taboo on eating of deer meat is based on the fear that eating such an animal might result in a deceased person's soul entering the body of the living person with the result that he may subsequently die" (Harner 1962, 267).
- (agr, hub) Carnivores, sloths, bats, anteaters, nutrias, most opossums, one of the armadillos, and rats and mice are not classified as edible (Berlin and Berlin 1983, 306). However, "All fish are considered edible except the small parasitic canero (*Henonomus* sp., *Plectrochilus* sp., *Pseudostegophilus* sp.). The fresh water dolphin (*Inia* sp.) is not considered to be edible, nor is it classified as a fish" (Berlin and Berlin 1983, 306). "Deer (both *Mazama americana* and *M. gouazoubira*) have traditionally been tabooed as edible game among all Jivaroan groups. The taboo is beginning to break down among the riverine Aguaruna, as seen in its relative contribution to total mammal consumption" (Berlin and Berlin 1983, 317). Additionally, "deer is occasionally sold to military personnel and missionaries by the Aguaruna residing on the Cenepa" (Berlin and Berlin 1983, 317).

2.10 Canoes/watercraft? (acu) According to Ross, the Achuar use canoes (1988, 191).

3. Anthropometry

3.1 Mean adult height (m and f):

(acu)

Achuar Anthropometry

height (cm)

	females			males		
age, years	n	Mean	SD	n	Mean	SD
18-29.9	16	147.3	5.4	14	158.7	4.5
30-49.9	13	148.2	5.6	11	159.4	6

(Source: Orr et al. 2001, 304)

3.2 Mean adult weight (m and f):

(acu)

Achuar Anthropometry

weight (Kg)

	females			males		
Age, years	n	Mean	SD	n	Mean	SD
18-29.9	16	52.9	5.2	14	61.4	4.7
30-49.9	13	53.2	6	10	60.6	7.6

(Source: Orr et al. 2001, 304)

4. Life History, mating, marriage

- 4.1 Age at menarche (f): Information not encountered.
- 4.2 Age at first birth (m and f): Information not encountered.

4.3 Completed family size (m and f):

(jiv) "A household tends to have a typical composition of: one man, two wives, and seven children; or a man, one wife, and three children", living adjacent to other kin and affines (Harner 1972, 78-79).

4.4 Inter-birth-interval (f):

(acu) "Pregnancies and prolonged lactation of two to three years follow on another with little pause" (Ross 1988, 174).

4.5 Age first marriage (m and f):

(jiv) In the Centros of the Upano Valley, "Shuar courtship is brief and people tend to marry by the age of 17. Sexual relations of any sort are considered legitimate only within marriage, and premarital or extramarital relations are limited to only a few venues, namely the garden, the forest, or (more commonly now) the Hotel Rio Upano in Sucua on market day (Rubenstein 1993, 8).

(acu) "Girls are married as early as eight or nine years of age, whereupon they assume full adult subsistence and household duties" (Ross 1988, 70).

4.6 Proportion of marriages ending in divorce:

(jiv) "One twenty-four year old man I know is with his third wife, and one women friend of the same age has had two husbands and a lover" (Rubenstein 1993, 8).

(acu) "In Achuara society, there is no provision for formal divorce" (Kelekna 1981, 79).

4.7 Percent marriages polygynous, percent males married polygynously:

(acu) Out of 72 married men, 67 percent are "polygynously married and at least seventeen of them are married to sisters" (Ross 1988, 74). (acu) In a sample obtained by Kelekna, polygyny occurred "in 36% of male-based marriages and in 57% of female-based marriages" (1981, 67).

4.8 Bride purchase (price), bride service, dowry?

(jiv) "Sometimes matrilocal residence is avoided altogether when the suitor substitutes the gift of a shotgun to his father-in-law, instead of performing the more common bride-service. This substitution of bride-price for bride-service tends to occur

in cases where the suitor feels that a period of matrilocal residence would be a liability, rather than an asset to him, e.g., when his bride's family lives in a neighborhood containing a number of enemies of the suitor's family or when he is already married and must take his bride home with him" (Harner 1972, 79). "Marriage residence tended to be matrilocal since men were required to perform bride service for their fathers-in-law" (Steel 1999, 752). "The uxorilocal residence rule, combined with private ownership of land and bilateral inheritance, has made wives a means for husbands to acquire land. A landless Shuar man can marry a young woman and in effect receive from her father a dowry of land" (Rubenstein 1993, 5).

4.9 Inheritance patterns:

(jiv) "Clearly defined norms exist regarding the inheritance of both wives and material goods, although disputes regarding the latter category tend to be minor. The deceased man's eldest brother has the right to inherit the wife (wives). If there is no surviving brother of the deceased man, then his eldest parallel cousin is entitled to inherit his wife (wives). If the deceased man lacks sons of post-puberty age, his eldest brother also inherits his possessions. Otherwise, the eldest son receives these goods. There is a mild feeling that the eldest brother inheriting plural wives, or the eldest son inheriting material possessions, should distribute some of his new wealth to each of his younger brothers as they pass puberty" (Harner 1972, 178).

4.10 Parent-offspring interactions and conflict:

(acu) "[M]ature sons can influence their father's disposition of his daughters and persuade him to allocate them to individuals likely to reciprocate with women" (Kelekna 1981, 74).

4.11 Homosexual activities, social attitudes towards homosexuals:

(acu) The Achuar "object strongly to anything resembling confusion of gender identities and relations. Although they take a stern view of male and female homosexuality, and claim that no adult Jivaro would indulge in such practices, it is transsexual behavior – not uncommon among their forest Quichua neighbors – that really horrifies them. Their disgust is linked to the fact that sexual identity is a primary and inherent aspect of human individuality: you are born a man or woman, and so you must remain. In this sense 'biology,' the fact that you come into a 'naturally' gendered identity, is destiny" (Taylor 1993, 659-660).

4.12 Pattern of exogamy (endogamy):

- (acu) "The traditional Achuar form a series of endogamous areas divided into dispersed households whose composition varies between 10 and 30 individuals and which can in exceptional cases reach up to 60 people. Whether the households are totally isolated of whether they are found in aggregates of two or three, the distance between these households varies from one hour to a day's walk or canoe trip. Within the territory of each endogamous area intermarriages preferentially develop. Hence the area is occupied by a group of people who share close and direct relationships of consanguinity and affinity. The Achuar do not have unilineal descent groups nor do they have groups based on binding prescriptive rules of endogamy" (Descola 1981, 626).
- 4.13 What is the belief of the role of males in conception; is paternity partible? Are these "other fathers" recognized? (acu) "The Achuar have in fact very little to say about the physical process leading to the formation of a human being. It is generally held that babies are formed and fed by the father's semen" (Taylor 1993, 657).
- 4.14 What is the belief of the mother's role in procreation exactly? (e.g., "receptacle in which fetus grows") (acu) Women contribute blood and later milk (Taylor 1993, 657). "The woman plays no more than a subsidiary role in the process, that of a passive receptacle. Yet she it is who is blamed where there is sterility, for this is supposed to result from an inability to provide the 'egg' with an environment propitious to its development" (Descola 1996, 366).
- 4.15 Is conception believed to be an incremental process (i.e., semen builds up over time)?
- (acu) "Men and women are, it is true, in agreement on the general principles according to which a child is made: the father deposits in the uterus of the mother a tiny 'egg', contained in his seed, an egg that he must feed and fortify throughout its gestation, particularly during the last months, by regular contributions of sperm" (Descola 1996, 366).

4.16 Occurrence of sexual coercion, rape

(jiv) "Rape is not recognized as such and informants could recall no case of a woman violently resisting sexual intercourse. They said that a man would never commit such an act if the woman resisted, because, she would tell her family and they would then punish him. Also, it seems that both men and women tend to regard adultery as a spicy diversion, whose attraction seems to be sufficient to make rape unnecessary" (Harner 1972 176). Were any informants/interviewees women?

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

(acu) "[C]lusters of kindred-groups built around repeated cross-cousin marriage usually include ten to twelve households" (Taylor 1993, 657). Further, "[T]ribal intermarriage is still infrequent, and was formerly very rare" (Taylor 1993, 657). See 8.3

4.18 Do females enjoy sexual freedoms?

According to Brown and Van Bolt, the swidden garden is the "site of a certain amount of intra- and extra-marital sexual activity (1980, 171).

(acu) "Women thought to flaunt the mores which place sexual and marital arrangements in the hands of men are punished severely" (Ross 1988, 74). Ross said: "several punitive homicides by brothers or potential spouses for real or assumed violations (adultery, ostensible pregnancy)" occurred (1988, 132), while other times "an adulterous wife must flee to a distant zone to escape the wrath of her husband" (Kelekna 1981, 79). "For suspected though unproven adultery, the punishment entails slashing of the wife's scalp, for adultery, shooting of the unfaithful wife and her lover" (Kelekna 1981, 80).

- (jiv) "Premarital intercourse is a less serious offense than extra-marital. Premarital sexual relations are widespread, and single girls frequently become pregnant. Such affairs usually are looked upon fairly tolerantly by everyone, even by a girl's mother, as long as the girl's father does not discover them in the act. If such a discovery occurs, the father has to punish them in order to avoid becoming the butt of jokes in the neighborhood. The father is expected to slash the scalps of both under such circumstances" (Harner 1972, 175).
- 4.19 Evidence of giving gifts to extramarital partners or extramarital offspring: No information encountered.
- 4.20 If mother dies, whose raises children? No information encountered.
- 4.21 Adult sex ratio: number of adult males divided by number of (reproductive) females
- (jiv) "[T]he ratio of adult females to adult males is approximately 2:1, largely as a consequence of the attrition of the adult male population through killing" (Harner 1972, 80).

4.22 Evidence for couvades

In 1880, Simson reported that the couvade "is rife among the Jívaros; and at the birth of a child, the mother has to undergo all her parturient troubles outside the house, exposed to the elements, whilst the husband quietly reclines in the house, coddling and dieting himself for some days, until he has recovered from the shock produced upon his system by the increased weight of his responsibilities as a father (388). Then, in the 20th century Harner reported that "No couvade is observed by the new father" (Harner 1972, 84).

4.23 Different distinctions for potential fathers (e.g., lesser/younger vs. major/older): No information encountered.

4.24 Kin avoidance and respect?

(acu) "The mother's brother/sister's son relationship is a particularly close one. A maternal uncle often trains his nephew in hunting techniques and other male pursuits during the latter's formative years, devoting time and attention that older males, including the boy's father, may not be willing or able to spare" (Ross 1988, 92). This is not generally true for "father-in-law/son-in-law relations are bound by constraint and formality" (Ross 1988, 94). While brothers may argue and fight and live in different locations due to matrilocal/avunculocal residence, they "unite for special functions as in war" (Ross 1988, 204).

4.24 Joking relationships?

- (jiv) "Joking relationships are restricted to cross-cousins, with emphasis on humor between cross-cousins of the opposite sex, who frequently banter flirtatiously with each other. The jokes are often explicit sexual challenges, even between persons married to others and, when engaged in by elderly cross-cousins, are often the occasion for general mirth in the household. The Jívaro explain that they cannot joke with other relatives because of their 'respect' for them" (Harner 1972, 97).
- 4.25 Patterns of descent (e.g., bilateral, matrilineal) for certain rights, names or association? No information encountered.

4.26 Incest avoidance rules

(jiv) "The only kinswoman with whom marriage is formally sanctioned is a cross-cousin (*wahe*) from either parent's side of the family" (Harner 1972, 95).

4.27 Is there a formal marriage ceremony?

(acu) "Relatively little ceremony attends to the actual celebration of marriage which, among the Achuarä, tends to resemble more of a process than an event. However, the assumption of that status is publicly marked when a son-in-law is first served níhaman[c] and a meal by his wife, and when his wife in turn first sits down next to him to share a meal. Prior to this, the couple spends increasing amounts of time together, but in the company of a chaperone, usually her adolescent brother" (Ross

1988, 126). The adolescent brother even chaperones during sleep as "It was noted that in the marriage ceremony, for the first few nights the bride's brother sleeps between the bride and groom" (Kelekna 1981, 73).

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

"[I]nfants are never given the name of a known living person within the social universe of the parents. Children are given only one name, while nicknames, though not unknown, are not commonly used, and then only for adult men. However, as soon as a person dies, his or her name can be given to a newborn. Ideally, children should be given the name of one of their grand- or great-grand-parents, but when this is not possible any ascending collateral relative's name is bestowed. No preference is given to paternal or maternal sides" (Taylor 1993, 659). "The dead must be separated from the living, by invoking mutual invisibility, by breaking down previous kin ties into social and affective anonymity, by rubbing out the memory of the deceased's appearance and so the memory of the individual himself, and by recycling his name through its bestowal on a new-born infant" (Taylor 1993, 668).

- 4.29 Is marriage usually (or preferred to be) within community or outside community? (m/f difference?) (acu) Among the Achuar "there is a constant margin of approximately 30 to 40 percent of 'deviant' marriages in every nexus, deviant either because they are exogamous to the nexus, or because they are not between cross-cousins, or both. Some of the exogamous marriages are to begin with, the result of abduction of women from other nexi" (Taylor 1983, 344). "Marrying orphans, or very 'distant' women, keeps one at a safe remove from immediate affines and their usual harping of obligations of mutual support in case of conflict; in fact this sort of discreet marriage (which by no means precludes sororal polygyny) is the only way, in a society as addicted to warfare as the Achuar, of getting a fair chance to die peacefully in bed. This type of marriage is often contracted by men who are energetic traders rather than warriors and it is therefore often linked to *amìgri* circuit travelling" (Taylor 1983, 347).
- 4.30 Are marriages arranged? Who arranges (e.g., parents, close kin)?
- (jiv) In Ecuador, in the Upano River basin, "between the early 1940s, when the State gave missionaries control over Shuar territory, and the founding of the Shuar Federation in 1964, most marriages that occurred were arranged by priests" (Rubenstein 1993, 6).

(acu) "If the father is dead, a girl's brothers direct her marriage and customarily exact reciprocity from their prospective brother-in-law" (Kelekna 1981, 74) resulting in an exchange of wmen.

4.31 Evidence for conflict of interest over who marries who:

"[N]umerous forms of semi-incestuous marriage to an adoptive or classificatory 'daughter', or to a sister's daughter, or to the wife of an erstwhile 'father'" constitute abusive monopolization of women, "since it necessarily flouts legitimate matrimonial claims over the same woman: marrying an adoptive daughter deprives one's affines' children of a rightful spouse, and marrying a sister's daughter deprives one's own children (real and classificatory) of a potential mate" (Taylor 1983, 346).

Warfare/homicide

4.14 Percent adult (male) deaths due to warfare:

"[A]dult sex-ratio among Jivaroan groups is markedly unbalanced in favour of women, due to the high level of mortality among adult males through feuding and warfare; depending on areas and historical periods, 50 percent to 60 percent of deaths among males may be attributed to homicide" (Taylor 1983, 343).

- (acu) A sample of over 250 deceased relatives of informants in the upper Morona River region alone reveals the following: 59% of adult male deaths and 27% of adult female deaths were homicides, chiefly perpetrated by other Achuarä in revenge for a previous killing, marital infidelity, or following supernatural attribution of disease-related deaths. Twelve percent of children's deaths were similarly reported as the result of homicide occurring during the course of intercommunity revenge raids" (Ross 1988, 56-57).
- 4.15 Outgroup vs ingroup cause of violent death: No information encountered.
- 4.16 Reported causes of in-group and out-group killing:
- (jiv) "Heads were taken from non-Shuar with whom the Shuar otherwise lived in peace, most commonly from the Achuar (there is little evidence of Achuar shrinking the heads of Shuar)" (Rubenstein 2007, 363).

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

In 1880, Simson reported that the Pintuc, Canelos, and Sarayacu Indians allied themselves against the Jívaros "on the right bank of the [Pastaza], and near the Morona, or Paute (387).

(acu) "Among the Achuarä, the same pattern of feuding and escalations has been practiced against Achuarä and non-Achuarä. It is principally by this means that the Achuarä have expanded southward over this century in to Peru, into territory in many cases already occupied by others. This movement has involved threat or retaliation and active retaliation, with continual testing of the capacities of their enemies to stand their ground and defend local territories" (Ross 1988, 202-203).

"[W]hile the acquisition of guns became a material goal of raids and head-hunting (setting aside the supernatural motivations), the possession of guns also facilitated long-distance forays, enabling men from the Upano Valley, for example, to range as far south as the Marañón River through otherwise hostile country" (Ross 1984, 92-93).

The Jivaroans are bordered by the "apparently 'assimilated" Quichua-speaking groups such as the Lamista, the Andoas, the Napo Runa, and by the Tupian Cocama and Cocamilla, as well as by the Cahuapanan-speaking Xebero and Chayavita" (Taylor 1999, 194)

4.18 Cannibalism? No information encountered.

5. Socio-Political organization and interaction

5.1 Mean local residential (village) group size:

(acu) "An endogamous nexus consists of from ten to fifteen households scattered over a relatively well-defined territory, whose members are closely related and directly related by kinship and affinity" (Descola 1994, 9).

5.2 Mobility pattern: (seasonality):

Gathering provides proteins and calories.

(acu) "[T]he palm weevil larvae can systematically replace meat and fish as principal protein supply during brief periods when hunting and fishing are not possible. Certain cultivated fruits such as the contaduro palm nut-fruit (*Guilielma gasipes*) are abundantly consumed during five months of the year among the Achuar. At times, these foods supply up to 30% of the daily protein intake" (Descola 1981, 623). "Seasonal and climatic fluctuations certainly have more effect on hunting returns than do differences between the biotopes. The 'wooly-monkey-fat season,' which extends from March to July, does not entail a manifest increase in the numbers killed, but appears only in a very relative rise in mean weight of certain animals taken. Alternatively, long periods of heavy rain have a nefarious effect on hunting, for they keep the men at home and drive the peccary hordes away. It is during such periods, which can last two or three weeks, that a family may run out of meat, especially since the rivers are in flood, which usually makes fishing impossible. But these calamities are the exception and rarely occur more than once a year. Inversely, low-water season (*kuyuktin*), from November to January, causes a sharp drop and even a halt, in hunting in the riverine habitat. The reason is not that game is any less available, but that fish are more available, making for such abundant catches (by line or spear) that the Achaur find it much easier to fish than to hunt" (Descola 1994, 249).

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

- (agr) According to Works, the Aguaruna "[p]olitical structure is limited to a village leader whose designation rests on community respect and recognition of special hunting skills and spiritual knowledge" (1985, 4).
- (jiv) "While warriors and shamans have influence primarily over their particular areas of expertise, the *uunt* ('big man' or 'old man') of a neighborhood, who may be a shaman or a warrior, has a more generalized sphere of influence. A big man achieves power through building up a network of alliances through his own and his daughters' marriages and through controlling access to land. His skill in social relationships allows him to acquire a number of wives and many children, keep his sons-in-law nearby as political allies, and create personal obligations among his kinsmen, thereby becoming the principal *uunt* of a neighborhood. Personal characteristics that enhance a big man's reputation are skill in hunting, physical strength, generosity, knowledge of mythology, ritual, and nature, and speaking ability" (Hendricks 1988, 220). "While many factors are involved in the rise of a big man, control over land is vital to his success. Without land to give his sons and sons-in-law, a man cannot demand that his offspring remain with him and he cannot build the network of political allies essential to his status as a big man" (Hendricks 1988, 229).
- (jiv) The head of Shuar household or community sits on *chumpí*, a carved seat (Hendricks 1988, 230). "Before the founding of the Federation in 1964, the ultimate sign of power for men was the possession of tsantsas [shrunken heads] made from the casualties of war. Indeed, the immediate cause of war was the acquisition of heads as signs of power" (Rubenstein 2007, 363).

- 5.4 Post marital residence: matrilocal/avunculocal (Ross 1988) (Taylor 1981)
- (jiv) Increasingly, matrilocal residence and working years for the father-in-law can be avoided altogether by giving the father-in-law a shotgun (Harner 1972).

5.5 Territoriality? (defined boundaries, active defense):

(acu) "The territorial axis of an endogamous nexus is the river or stretch of river whose name is used to designate all members of one nexus as being part of a geographic whole (e.g. *Kapawi shuar*, "The Rio Kapawi people"). Although the scattered households of a nexus are strung out, more or less uninterruptedly, along the river and its main tributaries, the territorial divisions between endogamous zones are fairly clear. There is generally a no-man's-land of at least a day's walk or canoe trip between adjacent nexus" (Descola 1994, 9).

5.6 Social interaction divisions? (age and sex):

It is usually younger Shuar who become literate in Spanish since "speaking Spanish signifies access to potential power resources other than the traditional ones", and "literacy is becoming a criterion for certain positions of authority at the local level" (Hendricks 1988, 224).

- (jiv) "The elders resent the authority achieved by young men who have no experience in life" (Hendricks 1988, 226).
- 5.7 Special friendships/joking relationships:

(acu) "[T]he relationship between a man and his wife's brothers is a close and intimate one" (Kelekna 1981, 73).

5.8 Village and house organization:

"Before the nineteenth century it appears that the Jívaro typically lived in large communal houses, and as late as 1852 there are reports that a Jívaro house typically contained several families. From at least the beginning of the twentieth century, however, the Jívaro lived in dispersed houses peopled by single polygynous nuclear families and loosely grouped into largely endogamous neighborhoods" (Steel 1999, 752).

- 5.9 Specialized village structures (mens' houses): No information encountered.
- 5.10 Sleep in hammocks or on ground or elsewhere? Hammocks (Simson 1880, 388).
- 5.11 Social organization, clans, moieties, lineages, etc:

(acu) "In contrast to what happens in many pre-modern societies, amongst the Achuar birth does not qualify one to be incorporated into a clan or lineage with clearly defined interests; it does not confer any rights to any responsibilities or titles, nor does it impose any particular duties towards any local deity or domestic altar" (Descola 1996, 366).

5.12 Trade:

"Aguaruna in the Mayo Valley have engaged in trade for several decades. Work exchange for local mestizos and the sale of animal skins and smoked meat provided some money for cloth, clothing, metal cookware and machetes (Works 1985, 12). The Aguaruna (of the Alto Mayo) also seek lanterns, radios, and outboard motors, indicating a degree of integration into the monetary system of Peru and acculturation into the mestizo world (Works 1985, 12).

(jiv) "Settlers [mestizos and Europeans searched for cinchona bark in the 1880s] occasionally exchanged manufactured goods such as machetes and shotguns in return for Shuar labor or forest products: pigs, deer, salt – and tsantsas" (Rubenstein 2007, 366). "At the same time that Shaur warriors were taking heads to trade to settlers, they were fostering traderelationships with Catholic missionaries" (Rubenstein 2007, 367). "Although the Shuar were able to obtain machetes, cloth, and other Western goods more easily from the missionaries that form traders, guns could only be acquired through the illicit head trade" (Steel 1999, 755). "The initial circulation of these heads - from the body of an Achuar to the household of a Shuar - allowed tsantsas to serve as vehicles through which Achaur power could be incorporated into Shuar society. The exchange of tsantsas for manufactured goods in the first half of this century incorporated Shaur into the world economy" (Rubenstein 2007, 379). After 1850, Shuar families migrated to the land between the Paute River and Macas (a frontier town in the Upano Valley), where they served "as middlemen in a trade in which salt and pigs flowed from Shuars to Macabeos, and to the Canelos Quichua to the north, in exchange for manufactured goods, including machetes. Macabeos soon became interested in the Shuar's tsantsa, and these items entered the trade circuit as well" (Steel 1999, 745).) "Shuar tsantsa raids intensified in the latter part of the nineteenth century and then declined after about 1915, while intratribal feuding among the interior Shuar increased from about 1915 to 1957. Achuar feuding increased dramatically from 1940-1970, then declined in the 1970s. These general changes in Jívaro warfare were shown to correspond to changes in the availability of Western goods. Moreover, evidence was given that the Jívaro had a strong desire to obtain manufactured valuables and that access to these items became an important basis of power for great men" (Steel 1999, 772). "Today the majority of Shuar are peasants, occasionally selling cattle, narajilla, and lumber to pay for clothing, medical and educational supplies, and increasingly, meat. Those of their children who cannot acquire enough land to farm turn to wage labor, and in some cases migrate to New York or Los Angeles in search of work" (Rubenstein 2007, 368-369).

(acu) "[E]thnohistorical evidence shows the Achuar to have been for centuries eager to obtain scarcity within their own group to ensure the necessity of trade. This trade complex, and particularly the links forged with regatones since at least the beginning of this century, had long since established the need for manufactured goods and paved the way for missionary penetration. When the pre-existing trade web was dismantled as a consequence of the 1941 international conflict, the Achuar, in order to maintain their trade complex, had no choice but to initiate contact with new sources of foreign goods (Taylor 1981, 651). "Achuar society is criss-crossed by a dense web of trade relations, and there is a constant flow of commodities within the endogamous group, between endogamous areas, and between the Achuar as an ethnic unit and their jungle Quichua and Shuar neighbors. At the territorial and intertribal level these trade relations were, and still are to a certain extent, based on local specializations. The northern Achuar excelled in the manufacture of blowguns and traded them north to the Canelos Quichua and south to the Morona Achuar; curare and glass beads from Peru were channeled west toward the Shuar; shotguns and salt came from the Shuar and flowed east, and so on. This local specialization was itself based either on a quasi-monopoly over certain natural products with restricted geographic distribution (e.g. specific palms, salt, latex, pigments for ceramics) or on the monopoly of access to certain manufactured goods (steel tools, rifles, shotguns, black powder, shot, and glass beads)" (Taylor 1981, 656). "The advent of firearms changed the relationship of raiding to the distance factor and to risk. It facilitated long-distance forays through hostile territory, altered the nature of regional commercial transactions, and stepped up the trade in guns and trophy heads" (Ross 1988, 208).

5.13 Indications of social hierarchies?

- (jiv) "The development of a state-supported elite among the Shuar signals the beginnings of social stratification. As the gulf in economic and political privilege between Federation members and their leaders grow, leaders must find more effective ways to legitimate the institutional basis of their power and privilege" (Rubenstein 2007, 380-381).
- (acu) "A second kind of exogamous and/or unorthodox marriage stems from the political strategies played out the great-men belonging to different nexi. These men will often exchange women in order to expand their net of affinal kin and overstep the boundaries of their own nexus to include other *kakàran* in their kinship network. This type of political marriage accounts for the fact that great-men often (though by no means always) have more wives than other men. The accumulation of women on the part of the *kakàran*, far more than a question of prestige or expansion of the domestic labour force, must be understood as a result of the capitalization of affinal bonds, which constitutes the essence of politics and great-manship among the Jivaroan groups. More important to my mind than the merely quantitative aspects of great-men's polygyny is the fact that these wives are not normally sisters" (Taylor 1983, 345).

6. Ritual/Ceremony/Religion (RCR)

6 Time allocation to RCR: No information encountered.

6.1 Specialization (shamans and medicine):

- (jiv) "Anyone may enter the supernatural world to obtain guardian spirits for protection against sorcery" (Hendricks 1988, 222). However, "Shamans must complete an apprenticeship, buying *tsentsak*, magical darts used in both curing and sorcery, from established shamans and seeking power through fasting, celibacy, and the use of the hallucinogenic drug, *natém* (*Banisteriopsis sp.* [ayahuasca]). The master shaman blows over the *natém*, the tobacco, and over the body of the novice himself to transmit his power or magical darts" (Hendricks 1988, 222).
- (jiv) "Quichua and Cofán shamans are believed to be more powerful than Shuar shamans, who travel great distances to apprentice themselves to non-Shuar shamans" (Hendricks 1988, 222). "Shuar shamans (*uwishin*) drink hallucinogenic beverages to communicate with the spirit world, diagnose illnesses, determine guilt, and see the future"; furthermore, the Shuar believe that "witchcraft or sorcery causes most diseases" (Bennett 1992, 483).

6.2 Stimulants:

All Jívaroan ritually use *Banisteriopsis caapi* (ayahuasca or natem), *Brugmansia suaveolens* (maikua), and *Nicotiana tabacum* (tsaank) "(Bennett 1992, 483). The Shuar use *natém* (*Banisteriopsis sp.* [ayahuasca]) (Hendricks 1988, 222). "Other plants used in hallucinogens or in narcotic beverages include *Brunfelsia grandiflora*, *Cyperus spp.*, *Diplopterys cabrerana*, *Heliconia stricta*, *Herrania spp.*, and *Ilex guayasa*" "(Bennett 1992, 483). "Jívaroan consumption of tobacco [*N. tobacum*] (tsaank) includes chewing, drinking, snuffing, and smoking" (Bennett 1992, 488). "The Shuar drink the juice of *N. tobacum* during *natem* healing ceremonies. They also believe that smoke from *N. tabacum* cigarettes repel evil spirits" (Bennett 1992, 483). "The use of hallucinogens is very circumscribed among the Shuar. They drink narcotic beverages only to communicate with the spirit world" (Bennett 1992, 483).

(agr) "Young men and women traditionally take hallucinogens to seek a type of vision called *niimagbau* in which they see an image of their future spouse, their many healthy children, the future abundance of their domestic animals, and so on (Brown and Van Bolt 1980, 184).

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

In 1880, according to Simson, amongst the Gaulaquiza Jívaros, children of three of four are "initiated into the art and mysteries of smoking" (388). "Boys also consume *tsaank* and *maikua* during puberty rites. The plants are believed to help the young men find an *arutam* soul. Apprentice shamans are initiated with green tobacco juice before they take stronger hallucinogens" (Bennett 1992, 493). "[A] special feat is held in each boy's honor after he has attended his first battle, at which feast he is bedaubed on the legs with animal blood" (Jandial et al. 2004, 1220). "[A]fter a young man goes to the waterfall to seek an arútan, the soul of an ancestor, others will know of his success by the strength of his voice" (Hendricks 1988, 223). "[F]rom the age of approximately 6 years onward, he is daily indoctrinated into a recitation of feuds his family is engaged in, along with a catalog of the misfortunes that will befall the family if they fail to exact revenge" (Jandial et al. 2004, 1220). "Tobacco is also used to 'clean' young girls when they begin to menstruate. A puberty right for girls involves drinking juice of green tobacco leaves. This enables them to communicate with the spirit world which will help them in raising crops and animals" (Bennett 1992, 493).

(acu) "The Achuarä customarily bury close adult deceased male relatives in the house beneath their platform bed" (Ross 1988, 61).

6.4 Other rituals:

- (agr) "The Aguaruna have developed a reliable, efficient system of horticultural production, yet they perceive it as being as fraught with uncertainty as hunting. To encourage the growth of their cultivated plants they sing magical gardening songs, perform a set of ritual acts when planting a new garden, and observe certain taboos connected with garden work" (Brown and Van Bolt 1980, 169-170). "Aguaruna tradition is rich in magical songs (*anen*), which are used for hunting, warfare, and courtship, as well as horticulture" (Brown and Van Bolt 1980, 173). In contast to social songs, magical songs, "are thought of as ancient and powerful, and are acquired secretly" (Brown and Van Bolt 1980, 173-174). "To be taught a magical song, the one who wishes to learn the song must first become slightly intoxicated by drinking tobacco juice mixed with the saliva of the teacher of the song" (Brown and Van Bolt 1980, 174). "Subsequent to learning a magical song, one must maintain a period of sexual abstinence and observe various food taboos to prevent the song from 'escaping' from the body" (Brown and Van Bolt 1980, 174). "The most closely guarded personal possessions of Aguaruna women are magical gardening stones called *nantag*", employed in horticulture ((Brown and Van Bolt 1980, 176-177).
- (jiv) "A successful returning war party dispatched a message to an older warrior who subsequently sponsored a two or three day feast. The warriors returned to their homes and hosted one or two additional feasts up to three years after the initial one. These lasted five or six days, and were attended by up to 150 people who danced, ate, and drank huge quantities of manioc beer" (Rubenstein 2007, 364). "After removing the skull and shrinking the skin through a process of desiccation, the warriors rubbed it with balsa wood charcoal and sewed the lips together. The black soot was supposed to keep the *muisak*, or avenging soul, of the dead person from coming out and doing mischief (Rubenstein 2007, 363). "A major part of the belief and ritual associated with the shrunken head or tsantsa is a direct effort to thwart the musiak in its mission of vengeance" (Harner 1962, 265). "Tsantsa feasts are also held using the shrunken head of a tree sloth. The tree sloth is the only nonhuman creature throught to be capable of forming a musiak" (Harner 1962, 266). The first part of the head-hunting ritual (the *numpenk*) thus centres on the bestowal of a new identity and social existence upon the dead, who is imprisoned in his own head, through the mediation of women" (Taylor 1993, 671). "Covering the skin of the *tsantsa* in soot and ashes abolishes the surface on which men paint the signs of their particular destiny, and sewing up the orifices of the head's organs of communication sight, hearing and speech negates or annuls both the possibility and memory of those experiences; particularly the *arutam* experiences that are the source of a person's social and existential individuality and notoriety" (Taylor 1993, 672).

6.5 Myths (Creation):

(agr) Among the Aguaruna "[i]n mythological times the garden was the place where women entered into romantic liaisons with animals in human form, and where they were taught how to give birth by katip, the common mouse" (Brown and Van Bolt 1980, 171). "A long Aguaruna myth explains that achiote was once a woman who wandered through the forest in the company of her sister genipa (*Genipa Americana*, source of a blue-black dye). The two sisters suffer many humorous misadventures as they find, then reject, various husbands. Finally they decide to remove themselves from the cares of the world by changing into useful trees; thus they assume their present form. As a garden plant of feminine origin and the source of the most important coloring used in pottery manufacture, achiote is strongly associated with the earth mother *Nugkui*, the latter being the primeaval giver of cultivated plants and pottery. The use of achiote, which symbolizes blood by virtue of its color and *Nugkui* by virtue of its mythical origin and its role in pottery making, serves to link together and add meaning to the diverse symbols of gardening ritual" (Brown and Van Bolt 1980, 186-187).

- (jiv) "Etsa and Nunkui, who typify the ideal man and woman respectively and who impart all of the knowledge concerning their roles in life, Etsa taught the Shuar the arts of hunting, constructing blowguns and darts, and warfare, as well as proper behavior in the family. Nunkui provides women with a model for caring for gardens, giving birth to children, making pottery, and being an obedient wife" (Hendricks 1988, 221). "When Etsa taught the Shuar to hunt, he blew tobacco into the mouth of the hunter in order to transmit his power to make his aim certain. Nunkui blew on a woman's hands to teach her to make pottery" (Hendricks 1988, 222).
- (jiv) In Shuar mythology, Tsunki, the first shaman, used an Amazonian water turtle for a *chumpí* [carved seat, signifying authority], and there is an association between the power of Tsunki and the power of a man who has the right to sit on the *chumpí* (Hendricks 1988, 230).

6.6 Cultural material (art, music, games):

Simson (1880) reported that the Jívaros used a system of telegraphy, "by giving strokes on the 'Tunduli,' a large drum, which is heard house to house, and passed on from hill to hill" (387). "In each house is a large signal drum, *tunduli*, made from a hollowed log about 5 feet long. With the drum is a short wooden beater padded on one end. As a rule, these drums are permitted to rest on the ground but the sound carries a much greater distance and has much more resonance when they are suspended by means of the wooden lugs at each end. The face of the drum has four diamond-shaped openings connected by slots. The drum is beaten on the tongue formed by the V-shaped slots connecting the two middle openings. There is also in each house a small dance drum made of a cylindrical piece of wood about 10 inches long and about 7 or 8 inches in diameter. A monkey-skin head is attached to each end by means of tight-fitting hoop. This drum is beaten with a small bone or a straight stick. It is used in connection with singing and dancing. The large drum is also used for dances in the big ceremonies" (Stirling 1938, 92).

"Singing may or may not have instrumental accompaniment" (Stirling 1938, 92). "Bamboo flutes of various types are popular. These are used as a rule by young men in love, or for playing melodies when in a sad mood. Trumpets are made from the shells of the giant land snail. These are used for signaling purposes and can scarcely be classed as true musical instruments. The Aguaruna make a primitive violin called quer-quer from cedar or balsa wood which normally has two strings made of monkey intestines or of chambira fiber. It has a hollow sounding box at the large end, which is covered with a thin slab of wood fastened in place with wooden nails. Upon this is a fret held in place by two projecting wooden plugs. The strings are tuned by means of two chonta wood-pegs, to which the strings are attached. The instrument is played by means of a small bow which has a string of rattan. The quer-quer is only played when the musician is along in the house. It is used to recall war expeditions and memories of the dead. The music is always sad and the player weeps as he plays. "The snail-shell belts and leg ornaments worn by the women at dances might be classed as musical instruments, as the jingling sound they produce marks the cadence of the dance" (Stirling 1938, 93-94).

6.7 Sex differences in RCR:

(agr) "There are various precautions and avoidances that women observe when planting manioc stem cuttings or working in a newly planted garden. During planting, a woman must abstain from sexual intercourse" (Brown and Van Bolt 1980, 183) and "should not roast manioc in the coals of the fire immediately before or after planting, as this would make her hands hot and cause the new manioc stems to be burned" (Brown and Van Bolt 1980, 183). "The smell of a menstruating woman or a new-born infant can also burn the plants, making them turn yellow and sickly, so women avoid the garden during their menstrual periods or immediately after childbirth" (Brown and Van Bolt 1980, 183).

6.8 Missionary effect:

- In 1880, "[t]he missions at Macas and Gualaguiza have as yet produced no practical results, nor obtained any authority over the Indians" (Simson 1880, 385).
- (jiv) Catholic "missionaries were not interested in accumulating tsantsas or avenging souls; they discouraged warfare and sought to collect the souls of living Shuar by converting them to Catholicism. They convinced adult Shuar, exhausted by warfare and eager for new trading opportunities, to send their children to live at Catholic boarding schools" (Rubenstein 2007, 367). The "Shuar alumni of missionaries were opposed to warfare and warriors" (Rubenstein 2007, 367). Headhunting has stopped among the Jivaro not because people decided collectively to forget past offences and desist in raiding for trophies: it stopped because of increasing missionary control over individuals' lives and choices, because of the threat of army intervention, because the kin of victims gradually grew old and died, taking with them the memory of their rage, and because fewer and fewer men are left who retain the practical and ritual knowledge associated with taking and shrinking heads" (Taylor 1993, 670). "Many Shuar with whom I spoke lamented the loss of certain songs and instrumental genres caused by contact with the mission over the past ten to 20 years. They worry over this perceived impoverishment and fear that their children will not learn Shuar music as they themselves did, by direct transmission" (Belzner 1981, 744).

6.9 RCR revival: No information encountered.

6.10 Death and afterlife beliefs:

- (acu) "[T]he *wakan* leaves the body shortly before death and is changed into an Iwianch, which haunts the house until the body of the deceased has totally decomposed. At this point, the Iwianch-*wakan* undergoes a metamorphosis and becomes an animal. The *wakan* has no precise seat in the human body, so the species whose form it takes depends on the part of the body where it was residing immediately before its departure: it will be an owl if it was residing in the liver, a grosbeak for the heart, a morpho butterfly for the auricules some say the lungs a red deer for the 'flesh' or sometimes for the shadow cast by that body" (Descola 1996, 367).
- (acu) "However, some people believe that the *wakan* returns to the placenta of the dead person buried close to the house in which he or she was born and there, throughout all eternity, leads the vegetative life of a foetus, while the various parts o the body become autonomous and change into animals..." (Descola 1996, 367). "[T]he funeral rites are expressly designed to prevent the deceased from seeking to stimulate memories, and most emphatically not to commemorate him/her" (Descola 1996, 382).

6.11 Taboo of naming dead people?

(acu) "[T]he dead person is evoked simply by a pronoun (never by name or kin term) (Taylor 1993, 665).

6.12 Is there teknonymy? No information encountered.

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

Animism, magic, and deism form the Jivaroan religion. No evidence was encountered to substantiate ancestor worship.

- (agr) The garden is point of contact between Aguaruna women and spirits not commonly found elsewhere, and "*Nugkui* is a supernatural being who has been variously identified as the 'Earth Mother'" (Brown and Van Bolt 1980, 171).
- (acu) "The necessary condition for effective gardening depends on direct, harmonious, and constant commerce with Nunkui, the tutelary spirit of gardens. Nunkui is a female being whose favorite dwelling place is the topsoil of a cultivated garden. She is the creator and mother of all cultivated plants" (Descola 1994, 192).
- (agr) "The power attributed to *nantag* stones is based on another principle of Aguaruna thought, namely, that certain objects may be repositories of animistic power (Brown and Van Bolt 1980, 185).
- (agr) "The Aguaruna, like the Quichua, believe that some stones, especially those of an unusual shape, texture, color, or provenience, are endowed with the power to attract game animals, promote the growth of cultivated plants, arouse the passion of members of the opposite sex, or weaken the will of enemies" (Brown and Van Bolt 1980, 185).
- (jiv) "Piribri, the Rain God, lives in the solitudes of the cloud-wrapped mountain Cuticu" ... "The trail from Mendez to Yaupe crosses Cuticu, and no Jivaro will speak while crossing the summit of the mountain because Piribri likes solitude and silence" (Stirling 1933, 138).
- "Pangi, the great anaconda River God, dwells a captive in the Pongo Manseriche, the great cataract of the Maranon, and the same taboo of silence is observed by the Jivaros passing through this gorge (Stirling 1933, 138).
- (acu) "In its more elaborate manifestations, indeterminate deadness becomes among the Achuar a class of evil spirits named *iwianch*, of which there are two species. One is repulsive, hairy, lonely and blind, but appears quite normal to live humans particularly women and children who may encounter them while alone in the forest. These *iwianch* trick their victims into talking to them and following them, and then keep them captive as pets to alleviate their desperate solitude" (Taylor 1993, 669).
- (acu) Other *iwianch* are constituted by certain kinds of wild animals deer, owls, *Morpho* butterflies that simply stare at you for a minute before disappearing. On no account must these creatures be killed, otherwise, the dead person of which they are an avatar will materialize in one's sleep as the image of live human and bitterly reproach one for the injury inflicted on them" (Taylor 1993, 669-670).
- (acu) According to Descola (1994), the Achuar Jivaro of the Upper Amazon, "consider most plants and animals as persons, living in societies, of their own, entering into relations with humans according to strict rules of social behaviour: game animals are treated as affines by men, while cultivated plants are treated as kin by women" (Descola and Pálsson 1996, 7).
- (acu) Descola (1994) demonstrates, "how the Achuar conceptualise different subsistence practices in terms of different kinds of social behaviour: 'the women's consanguine mothering of cultivated plants and the affinal charming of game practiced by the men" (Hornborg 1996, 56).

7. Adornment

7.1 Body paint:

- "Face painting among the Jivaro is closely linked to the issue of arutam visions and the transmission of the capacity to live an exceptional life. Although the designed painted by men on their faces with the red pigment of crushed *anatta* seeds all look very similar to an uninformed outsider, each individual in fact owns a private stock of motifs which are as specific to him as a name, and which are actually expressions or rather manifestations of the *arutam* visions that he has experienced" (Taylor 1993, 667).
- "Women also use red face painting, though their designs are different, much simpler and more uniform that those of men. Their motifs do not refer to *arutam* experiences, or at any rate not directly, buth rather to bonds with garden spirits (women

often apply face painting before going to their swiddens), and they are meant to express symbolic mastery over, and kinship with, the beings that control the growth and health of cultivated plants and domesticated animals" (Taylor 1993, 667-668). Men use body marking "on individual killing or collective raiding expeditions, in which the face and part of the body are covered with stripes of black *Genipa* dye" (Taylor 1993, 668).

"The juice of *Genipa Americana*, called sua by the Jivaros, is also used as a black stain in decorating the face and body" (Stirling 1938, 100).

7.2 Piercings:

"The men and women both pierce the lobes of the ears through which bamboo tubes are thrust. These ear tubes, or jarusa, are usually decorated with tufts of red and yellow toucan feathers and white down. Sometimes feather tufts are tied directly to the lobe of the ear." (Stirling 1938, 99).

7.3 Haircut:

"The hair is cut low on the forehead, forming a straight line above the eyes. It is allowed to grow somewhat longer over the temples where it hangs down on the cheek about on a level with the tip of the nose and the ear lobe. The rest of the hair is allowed to grow long, sometimes to the waist. Women generally allow their hair to hang free, although sometimes a women fillet is worn about the head. The men, however, have various methods of doing up their hair. The usual method is to gather it together at the base of the skull where it is wrapped with a narrow women cotton band called "eztma" about 2 feet in length, which is decorated at either end with tufts or red and yellow toucan feathers. Sometimes the hair thus gathered is allowed to hand down the back, but generally it is wrapped around the head. The hair hanging over the cheeks is frequently wrapped and allowed to hang in the form of two small pigtails" (Stirling 1938, 99).

7.4 Scarification:

(jiv) "[I]n the case of a set of same-sex siblings who might share too strong a family resemblance – the Jivaro (and more particularly the Ecuadorian Shuar) resort to a simple formal device to amplify the specificity of each child, namely tattooing. These very discrete markings, usually extending over the bridge of the nose, have no symbolic meaning and have apparently no other purpose that to enhance the facial singularity of each individual" (Taylor 1993, 659).

7.5 Adornment (beads, feathers, lip plates, etc.):

"Girls when still very young have the lower lip pierced and through the opening formed at this time the women wear a small cane lip plug" (Stirling 1938, 99).

"Both men and women occasionally wear about the wrists and ankles narrow circlets made from the skin of a small variety of green snake which are supposed to protect the wearer against evil influences in the forest" (Stirling 1938, 103).

7.6 Ceremonial/Ritual adornment:

"When traveling or when engaged in ceremonies, both men and women paint the face and occasionally the arms and shoulders with the oily red pigment from the seed of *Bixa orellana*, called achiote" (Stirling 1938, 99).

"Three principal types of feather crown are worn by Jivaro men. One called 'taguaza' consists on a disk like brim formed by lashing together with cotton thread several concentric hoops of rattan. The outer circumference is decorated with bright-colored feathers, usually the red and yellow breast feathers of the toucan, and with green beetle wings. Another showy crown consists of a woven hoop of vegetable fiber which fits the head and to which are thickly attached the red and yellow breast feathers of the toucan. The third type of crown consists of a band of monkey skin with the black fur attached, about 2 inches high, worn as a hoop about the head. Women do not wear feather crowns of this nature" (Stirling 1938, 100,102).

7.7 Sex differences in adornment:

"The costume of the men consists of a rectangular piece of women cotton cloth which is brown in color with light vertical stripes, called an itipi. This is wrapped around the waist where it is tucked in and allowed to hand just below the knees. The men are uncovered from the waist up. When traveling the men wear a bag of monkey skin with the fur attached in which they carry their ornaments and other small articles.

"The costume of the women, called tarachi, consists of a much larger rectangular piece of woven cotton cloth not as heavy nor as finely made as those of the men. It is wrapped around the body in such fashion that the two upper corners meet over the right shoulder where they are pinned together with a chonta-wood pin. A cord is worn around the waist and the lower part of the skirt is drawn through it in such fashion as to make a loose blouse about the waist. In this infants and very young children are carried by their mothers, either on the back of at the breast. The skirt of the women also hangs just below the knees and the left shoulder is bare. When a family does not have sufficient cloth garments, or a woman has no man to weave for her, the tarachi is sometimes made from bark cloth. Boys also occasionally wear clothing of this material" (Stirling 1938, 100).

7.8 Missionary effect: No information encountered.

7.9 Cultural revival in adornment: No information encountered.

8. Kinship systems

8.1 Sibling classification system:

No information encountered.

8.2 Sororate, levirate:

The practice of leviratic marriage "is an essential aspect of Jivaroan kinship. The rule of levirate, whereby a man's wives are inherited by his real or classificatory brothers, is extremely binding in these societies, and violation of leviratic rights is a common source of armed conflict" (Taylor 1983, 341).

"[T]he object of levirate is simply to prevent the creation, through widowed women, of a new and different marriage alliance which, in terms of transmission, would necessarily result in possible dispersion of the affinal bond, since it would give birth to rival sets of potential spouses for the same cross-cousins" (Taylor 1983, 341-342).

Jivoroan "sororal polygyny in terms of the marriage alliance, one may readily note that it entails the dispersion of male siblings, since, once an affinal relation is established it cannot be 'redoubled' by a brother, which also means that two brothers cannot marry two sisters" (Taylor 1983, 343).

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

(acu) "The ideal mate is thus a child of one's father's affines, preferably a true MBD and/or FZD living within the same nexus. The value ascribed to genealogical and spatial proximity between spouses and their families is epitomized in the custom whereby future mates are reared together in the same household, just like cross-sex siblings. This form of marriage is of course frequently associated with sister exchange, which is in fact common, and is considered an ideal arrangement" (Taylor 1983, 334).

9. Other interesting cultural features (list them):

9.1 Gardens

(agr) "The souls of manioc plants are extremely dangerous during the first few months after planting. The Aguaruna say that the young plants become thirsty, and if their thirst is not quenched by ritual means they may drink the blood of someone who is passing through the garden" (Brown and Van Bolt 1980, 173).

9.2 Birth of twins

(acu) The "Achuar find the idea of twins of multiple births deeply repugnant" and "only one child of the set is allowed to live" (Taylor 1993, 659).

9.3 Suicide

(agr) Brown's analysis of Aguaruna suicides suggests "a suicide rate of approximately 180 per 100,000 per year for the period 1977-81" (Brown 1986, 312).

(agr) "The Aguaruna tend to link male suicides to situations in which a young man is either denied access to a potential spouse or in which he is engaged in some behavior that earns the disapproval of the community. Female suicides occur at a martial crisis: a woman is discovered committing adultery; she is abused or abandoned by her husband; she is forced into an arranged marriage; her husband takes a second wife. Among unmarried women, conflicts with close kinsmen produce the same result. Both men and women may have been drinking at the time of their suicide" (Brown 1986, 317).

9.4 Curare

(acu) "Good curare, or dart poison, is an especially valued and scarce resource which even most contemporary Achuarä do not make at present. (Their shamans used to make it.) It is now generally purchased, if possible and at great expense, from river traders emanating from the Marañon-Huallaga River zone, where the preferred curare has long been obtained from Cocama and Ticuna Indians" (Ross 1988, 45).

9.5 Motifs of virility

(acu) "In Ahcuara lore, the jaguar and the anaconda are recurrent motifs of virility" (Kelekna 1981, 48).

9.6 Brother's seduction of a brother's wife

(jiv) "Seduction of one's wife by one's brother usually does not seem to be considered quite as grave an offense as ordinary adultery. It still warrants a slashing of the offender's head, but the cutting sometimes is done with just a toucan beak instead of a machete. An offender who is a brother of the husband never has to pay anything in addition" (Harner 1972, 176).

References

- Belzner, William. 1981. "Music, Modernization, and Westernization among the Macuma Shuar." in *Cultural Transformations and Ethnicity in Modern Ecuador*. Norman E. Whitten, Jr. (ed.). Urbana Illinois: University of Illinois Press.
- Bennett, Bradley C. 1992. "Hallucinogenic plants of the Shuar and related indigenous groups in Amazonian Ecuador and Peru." *Brittonia* 44 (4). Pp. 483-493.
- Berlin, Brent and Elois Ann Berlin. 1983. "Adaptation and Ethnozoological Classification: Theoretical Implications of Animal Resources and Diet of the Aguaruna and Huambisa." in *Adaptive Responses of Native Amazonians*. Raymond B. Hames and William T. Vickers (eds). New York: Academic Press, Inc.
- Brown, Michael F. 1986. "Power, Gender, and the Social Meaning of Aguaruna Suicide." Man (N.S.) 21 (2). Pp. 311-328.
- Brown, Michael F. and Margaret L. Van Bolt. 1980. "Aguaruna Jivaro Gardening Magic in the Alto Rio Mayo, Peru. *Ethnology* 19 (2). Pp. 169-190.
- Descola, Philippe. 1981. "From Scattered to Nucleated Settlement: A Process of Socioeconomic Change among the Achuar." in *Cultural Transformations and Ethnicity in Modern Ecuador*. Norman E. Whitten, Jr. ed. Urbana, Illinois: University of Illinois Press.
- Descola, Philippe. 1994. *In the Society of Nature: A native ecology in Amazonia*. Translated from the French by Nora Scott. Great Britain: Cambridge University Press.
- Descola, Philippe. 1996. *The Spears of Twilight: Life and Death in the Amazon Jungle*. Translated from the French by Janet Lloyd. New York: The New Press.
- Descola, Philippe and Gísli Pálsson. 1996. "Introduction." in *Nature and Society: Anthropological perspectives*. Philippe Descola and Gísli Pálsson (eds). London, UK: Routledge. Pp. 1-22.
- Harner, Michael J. 1962. "Jívaro Souls". American Anthropologist 64 (2). Pp. 258-272.
- Harner, Michael J. 1972. *The Jívaro: People of the Sacred Waterfalls*. Garden City, New York: Doubleday/Natural History Press.
- Hendricks, Janet Wall. 1988. "Power and knowledge: discourse and ideological transformation among the Shuar." *American Ethnologist* 15 (2). Pp. 216-238.
- Hornborg, Alf. 1996. "Ecology as semiotics: outlines of a contextualist paradigm for human ecology." in *Nature and Society: Anthropological perspectives*. Philippe Descola and Gísli Pálsson (eds). London, UK: Routledge. Pp. 45-62.
- Jandial, Rahul. 2004. "The Science of Shrinking Human Heads: Tribal Warfare and Revenge Among the South American Jivaro-Shuar." Neurosurgery 55 (5). Pp. 1215-1221.
- Kelekna, Pita. 1981. Sex Asymmetry in Jivaroan Achuara Society: A Cultural Mechanism Promoting Belligerence. Ph.D. dissertation, University of New Mexico, Albuquerque.
- Lewis, M. Paul, Gary F. Simons, and Charles D. Fennig (eds.), 2013. "Jivaro: Achuar, Shuar, Huambisa, and Aguaruna." *Ethnologue: Languages of the World, Seventeenth edition.* Dallas, Texas: SIL International. Online version: http://www.ethnologue.com. Accessed 26 March 2013.
- Orr, Caley M., Darna L. Dufour, and John Q. Patton. 2001. "A Comparison of Anthropometric Indices of Nutritional Status in Tukanoan and Achuar Amerindians." *American Journal of Human Biology* 13. Pp. 301-309.
- Ross, Jane Bennet, 1984. "Revenge Hostilities among the Achuarä Jívaro." in *War, Culture, and Environment*. R. Brian Ferguson ed. Orlando, Florida: Academic Press, Inc.
- Ross, Jane Bennet. 1988. A balance of deaths: revenge feuding among the Achuarä Jívaro of the northwest Peruvian Amazon. Ph.D. dissertation, Columbia University.

- Rubenstein, Steven Lee. 1993. "Chain Marriage Among the Shuar." *The Latin American Anthropology Review* 5 (1). Pp. 3-9
- Rubenstein, Steven Lee. 2007. "Circulation, Accumulation, and the power of Shuar Shrunken Heads." *Cultural Anthropology* 22 (3). Pp. 357-399.
- Salazar, Ernesto. 1981. "The Federarción Shuar and the Colonization Frontier" in *Cultural Transformations and Ethnicity in Modern Ecuador*. Norman E. Whitten, Jr. ed. Urbana Illinois: University of Illinois Press.
- Simson, Alfred. 1880. "Notes on the Jívaros and Canelos Indians." *The Journal of the Anthropological Institute of Great Britain and Ireland* 9. Pp. 385-394.
- Steel, Daniel. 1999. "Trade Goods and Jívaro Warfare: The Shuar 1850-1957, and the Achuar, 1940-1978." *Ethnohistory* 46 (4). Pp. 745-776.
- Stirling, Matthew W. 1933. "Jivaro Shamanism". Proceedings of the American Philosophical Soceity 72 (3). Pp. 137-145.
- Stirling, Matthew W. 1938. Historical and Ethnographical Material on the Jivaro Indians: Smithsonian Institution Bureau of American Ethnology Bulletin 117. Washington, DC, Government Printing Office.
- Taylor, Anne Christine. 1981. "God Wealth: The Achuar and the Missions" in *Cultural Transformations and Ethnicity in Modern Ecuador*. Norman E. Whitten, Jr. ed. Urbana Illinois: University of Illinois Press.
- Taylor, Anne Christine. 1983. "The marriage alliance and its structural variations in Jivaroan societies." *Social Science Information* 22 (3). Pp. 331-353.
- Taylor, Anne Christine. 1993. "Remembering to Forget: Identity, Mourning and Memory Among the Jivaro." *Man, New Series* 28 (4). Pp. 653-678.
- Taylor, Anne Christine. 1999. "The Western Margins of Amazonia From the Early Sixteenth to the Early Nineteenth Century." in *The Cambridge History of the Native Peoples of the Americas* Vol. III South America Part 2. Frank Salomon and Stuart B. Schwartz eds. United Kingdom: Cambridge University Press.
- Wise, Mary Ruth. 1999. "Small language families and isolates in Peru." in *The Amazonian Languages*. R. M. W. Dixon and Alexandra Y. Aikenhenvald eds. Cambridge, UK: Cambridge University Press.
- Works, Martha Adrienne. 1985. "Development and Change in the Traditional Landscape of the Mayo Aguaruna, Esatern Perú." *Journal of cultural geography* 6 (1). Pp. 1-18.