

## **1. Description**

### **1.1 Name(s) of society, language, and language family:**

Colombia, Cagua, Maku or Puinavean

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

### **1.3 Location (latitude/longitude):**

Lower Vaupés Department, Wacará, 30 km east of Mitú. 1.983333/-70.173333 (2)

### **1.4 Brief history:**

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

By the 1960's there was almost continuous contact between whites and Cagua or "Maku" Indians. Rubber gatherers, traders, settlers, government officials, missionaries (catholic, evangelist), and other indian groups have all contacted and influenced the Cagua "Maku" based on beliefs that they are inferior.

Rubber gatherers- "The exploitation of rubber reached its first climax through the period 1900-1920. With the opening of the Calamar trail into the Vaupes, whites from all over Colombia came to seek fortune and new opportunities...each year the rubber gatherer enrolls between five and twenty Indians to tap rubber for him...The principal objective of the rubber gatherer with regard to the Indians is to exploit their labour potential. Subsidiary demands on the Indians include the sexual and domestic services of Indian women and barter or trade for the Indian production of manioc cereal, the staple food supply of the rubber trappers." (2, pg. 12-13)

Catholics- "The Catholic Missions did not become firmly established in the Vaupes region of Colombia until 1914 when French and Dutch missionaries of the Montfortian Order entered the Papuri river...The Montfortian missionaries appear to have used every means to persuade the Indians to move to the Missions and settle in concentrations around the Mission installations...The priests arrived unexpectedly at Indian ceremonies of exchange; they burned down the communal longhouse, the ritual centres of Indian religious experience. They burned ornaments and head-dresses, exposed and desecrated the sacred horns. With threats of further violence they carried off the Indian children to their schools and advised their parents to come and settle near the mission." At the schools they were taught to read and write both in their language and in Spanish and Catholicism. (2, pg. 16) Medicine that was thought to help the Indians was also administered by the missionaries (2, pg. 17).

SIL- "by 1970 the SIL had established a large base at Lomalinda in the centre of Colombia. From their personnel of over 200 – of whom 153 were North Americans – they had teams of translators working with 33 of Colombia's 48 tribes...In principle, they aim to be either 'on the tribe' or with Indian informants at the base...after seven years they were ready to begin to teach the Indians to read and write their own language and had also begun translation of St. Mark's gospel...the SIL workers seldom make public and explicit attempts to preach or convert...the Indians evaluated each individual SIL worker independently and found some more likeable than others...everywhere the Indians appreciated the interest and attempt to learn their language well" (2, pg. 26).

**1.6 Ecology (natural environment):** Forest dwelling nomadic hunter-gatherers. They live in the deep forest near streams but travel by land using interconnecting trails between each settlement. "They live in crude huts without walls by small streams in the deep forest, two or three hours inland of their river Indian neighbours. Maku have no fear of the forest – they are at ease in it...They have trails over large areas of forest...their settlements are connected to each other by trails through the forest, and all of their hunting and fishing is done on foot" (2, pg. 46). "The Maku of the east tributaries of the macu-parana move through four different environments – their settlements, their forest hunting camps, the settlements of their river Indian patrons and the world of the Whites" (2, pg. 49).

**1.7 Population size, mean village size, home range size, density:** "According to a census taken in 1964 the Indian population of the Colombian Vaupes is about 6,000. A crude calculation gives a population density of one person per fifteen square kilometres" (2, pg. 42).

## **2. Economy**

**2.1 Main carbohydrate staple(s):** the Bara Maku cultivate manioc but rarely gather non-meat. The one carbohydrate that is most sought after is Honey. "...all the Maku I came across did cultivate manioc to some degree" (2, pg. 45). "Only one food in the forest appeared to be specially sought out by the Maku – Honey...Most of the women and children – in fact everyone who is not absent or for some reason unable to leave camp – go off with the men to the honey tree. They carry pots and axes...the young men begin to chop through the trunk...before it is ready to topple on man climbs a nearby tree and stuff a bundle of smouldering damp leaves into the entrance of the hive by means of a long pole. The hive is chopped open and everyone dips their hands in..." (2, pg. 67). The Maku are also avid beer drinkers. "A large part of Maku manioc production goes into making beer – Maku are heavy drinkers" (2, pg. 45).

**2.2 Main protein-lipid sources:** The Maku's main protein sources are fish, monkeys, and large birds. The Maku also trap eels during the dry season. "Maku distinguish more than 42 kinds of edible fish in the rivers; however, six or seven of these kinds of fish account for most of their catch" (2, pg. 64). "A large proportion of the animals which Maku consider to be game are creatures such as monkeys and large birds; these comprise more than 60% of their kills" (2, pg. 69). "Eel hunting is practiced by the Maku...each dry season during the months of January, February, and March" (2, pg. 83).

**2.3 Weapons: Bow and arrow, blowguns?** The Maku hunt with fishing hooks, machetes, bows and arrows, and blowguns and poison. "During dry spells, when the streams are very low, Maku kill the fish in small streams by use of fish poisons...which grows wild as a vine in the forest... they are struck with a machete or stick and collected...fish are also caught with hooks baited with earthworms or fresh-water prawns...only occasionally do Maku kill fish with bow and arrow" (2, pg. 64). "the Maku have a weapon extremely well adapted to the problem of hunting game animals that sit or move about high up in the trees; it is the blowgun" (2, pg. 69).

**2.4 Food storage:** the Maku are nomadic hunter-gatherers so food storage seems non applicable.

**2.5 Sexual division of production:** Men do most of the hunting while women look after children, make baskets and occasionally fish and gather. Women are also responsible for gardening and preparing manioc. "Women look after small children, make baskets from forest vines and engage in a little casual fishing and gathering of ants and grubs. For the women a hunting trip is like a holiday from the repetitive daily work of gardening and preparing manioc in the settlement. Young girls frequently accompany their fathers and brothers in tracking tapir and peccary, and take part in many hunting activities such as smoking out armadillos, spearing agouti and clubbing wild pigs. However, women never use blowguns or bows and arrows and never take part in night hunting" (2, pg. 59). "Women produce manioc foods and drinks, whilst the men bring in meat and fish and build the houses and shelters. The men of a hearth fell, clear and burn gardens for manioc cultivation, which are then planted, weeded and harvested by the women. A man is aided by his unmarried adult sons, and woman by her daughters" (2, pg. 118).

**2.6 Land tenure:** the Maku are very mobile and traverse a large part of the deep forest. "it is certain that Maku are very mobile in comparison to the sedentary river Indians. The Bara Maku of the tributaries of the Macu-parana remained only a few years – sometimes only months- at each settlement" (2, pg. 103).

**2.7 Ceramics:** NOT FOUND

**2.8 Specified (prescribed or proscribed) sharing patterns:** Meat, fish, and manioc are shared with the hearth and local group. Women prepare the meals unless a man intends to take meat to the river Indians, in which case he prepares the meat and collects the firewood himself. "the meat and fish which the men bring in they give to the women when it is intended for consumption by the hearth and local group...a man prepares the meat when he intends to take it to the river Indians...except for the formal occasions when all the men of a local group including several hearths eat together, meals are eaten by members of each hearth group together and independently of other hearth groups. But very often the men of one hearth group have enough meat or fish to distribute portions to all other member of the local group" (2, pg. 118-119).

**2.9 Food taboos:** NOT FOUND

**2.10 Canoes/watercraft?** The maku are not skilled water travelers. They do not use canoes or any other watercraft. "Maku rarely make or use canoes...They are ill at ease with canoes, especially in the fierce rapids of the larger rivers, although they are sometimes used by the river Indians as paddlers on their river journeys" (2, pg. 46).

**3. Anthropometry** Could not find exact measurements but the below source may be helpful:

3.1 Mean adult height (m and f):

3.2 Mean adult weight (m and f):

Milton, Katharine. "Morphometric features as tribal predictors in North-Western Amazonia." *Annals of Human Biology* 10.5 (1983): 435-440.

"Multivariate analyses of variance were carried out on stature and weight of 50 adults (25 males, 25 females) from each of two linguistically distinct groups, Maku and Tukanoan, living sympatrically in north-western Amazonia. Results showed significant intertribal differences, with Maku (sylvan hunter-gatherers) being both shorter and lighter than their Tukanoan (riparian fisher-gardeners) conspecifics." (3, pg. 1)

#### **4. Life History, mating, marriage**

**4.1 Age at menarche (f):** NOT FOUND

**4.2 Age at first birth (m and f):** NOT FOUND

**4.3 Completed family size (m and f):** NOT FOUND

**4.4 Inter-birth-interval (f):** NOT FOUND

**4.5 Age first marriage (m and f):** NOT FOUND

**4.6 Proportion of marriages ending in divorce:** NOT FOUND

**4.7 Percent marriages polygynous, percent males married polygynously:** NOT FOUND

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

No formal bride price or service but meat can be given. "Most informants denied that there was any payment or service required but several agreed that a girl's suitor should hunt game and give her father meat" (2, pg. 177).

**4.9 Inheritance patterns:** NOT FOUND

**4.10 Parent-offspring interactions and conflict:** Children are under the authority of both their mother and father. As boys become older they gradually free themselves from their mothers authority but remain under the authority of the father. Daughters remain under the authority of both mother and father. A son is independent of both parents when he marries. Boys maintain a respectful relationship with their fathers. "Whilst they are young children are under the authority of both their father and mother. As they grow up boys become freer of their mother's authority...Girls remain under the authority of both parents, particularly that of their mother...A son becomes independent of his parents when he marries unless one of them had died and the survivor is dependent on him and his wife" (2, pg. 165).

**4.11 Homosexual activities, social attitudes towards homosexuals:**

**4.12 Pattern of exogamy (endogamy):** Maku practice endogamous marriage. "Firstly, Bara Maku are socially and culturally endogamous, they marry other Maku" (2, pg. 174).

**4.13 What is the belief of the role of males in conception; is paternity partible? Are these "other fathers" recognized?** NOT FOUND

**4.14 What is the belief of the mother's role in procreation exactly?** (e.g., "receptacle in which fetus grows") NOT FOUND

**4.15 Is conception believed to be an incremental process (i.e., semen builds up over time)?** NOT FOUND

**4.16 Occurrence of sexual coercion, rape:** NOT FOUND

**4.17 Preferential category for spouse (e.g., cross cousin)** The preferred spouse is a bilateral cross cousin of the same generation. "any person should only marry a real or classificatory bilateral cross-cousin, which...is of the same generation" (2, pg. 106).

**4.18 Do females enjoy sexual freedoms?** NOT FOUND

**4.19 Evidence of giving gifts to extramarital partners or extramarital offspring:** NOT FOUND

**4.20 If mother dies, whose raises children?** NOT FOUND

**4.21 Adult sex ratio:** number of adult males divided by number of (reproductive) females Sex ratio is 1.1 “The sex ratio of the population of Bara Maku in the synchronic survey in 1969-70 was 103 men to 94 women” (2, pg. 174).

**4.22 Evidence for couvades:** NOT FOUND

**4.23 Different distinctions for potential fathers (e.g., lesser/younger vs. major/older)** NOT FOUND

**4.24 Kin avoidance and respect?** Avoidance of incestuous marriage: “Bara Maku describe unions between father and daughter as ‘tapir marriage’...Unions between brother and sister are characteristic of ‘peccary marriage’. Both of these are kinds of ‘dog marriage’ since dogs explore all the permutations of ‘wrong marriage’. Another way of describing these unions is ‘mik hempna’ – to eat oneself” (2, pg. 176).

**4.24 Joking relationships?**

Father and son do not have a strong joking relationship but there is a strong joking relationship between a son and his mother. “The relationship between son and father is one of respect...There is never any strong joking between father and son; on the other hand a son takes liberties with his mother, occasionally addressing her with a fart and stealing her tobacco when she is asleep” (2, pg. 165).

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

Maku follow a patrilineal descent pattern. “In describing their social structure Bara Maku refer to kulu, patrilineal descent groups which I have called clans” (2, pg. 178).

**4.26 Incest avoidance rules Avoidance of incest marriage.** “Bara Maku describe unions between father and daughter as ‘tapir marriage’...Unions between brother and sister are characteristic of ‘peccary marriage’. Both of these are kinds of ‘dog marriage’ since dogs explore all the permutations of ‘wrong marriage’. Another way of describing these unions is ‘mik hempna’ – to eat oneself” (2, pg. 176).

**4.27 Is there a formal marriage ceremony?** No formal marriage ceremony. “Maku say that a man goes in search of a wife and, finding one, says to her father ‘ I want your daughter’...He then takes her back to live at his father’s place where they cultivate a garden together” (2, pg. 177).

**4.28 In what way(s) does one get a name, change their name, and obtain another name?** NOT FOUND

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

Usually marriage is between two affinally related clans. A “person should only marry...a member of an affinally related clan who is of the same generation” (2, pg. 106).

**4.30 Are marriages arranged? Who arranges (e.g., parents, close kin)?** Men choose their own wives. “Maku say that a man goes in search of a wife and, finding one, says to her father ‘ I want your daughter’...a girl’s suitor should hunt game and give her father meat”(2, pg. 177).

**4.31 Evidence for conflict of interest over who marries who:**

Jealousy and competition exists over who marries who and “it is likely that competition and jealousy over women provided a basis for the dispute and sorcery accusations which led to the segmentation into two clans” (2, pg. 187).

## **Warfare/homicide**

**4.14 Percent adult (male) deaths due to warfare:** NOT FOUND

**4.15 Outgroup vs ingroup cause of violent death:** NOT FOUND

**4.16 Reported causes of in-group and out-group killing:** NOT FOUND

**4.17 Number, diversity and relationship with neighboring societies (external relations):** the Maku have a patron-client relationship with the Tukanoans. “Both parties recognize the relationship of Maku to river Indians in a verbal category anan which could be translated as ‘servant’. Traditionally every Maku belongs to the son of the river Indian to whom his father belonged...The river Indian tells his servant Maku to perform some service; when he requires meat he equips his Maku with manioc cereal, tobacco and peppers for his use whilst he is in the forest” (2, pg. 98).

**4.18 Cannibalism?** NOT FOUND

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

**5.1 Mean local residential (village) group size:** Most local groups consist of 2 or more, small hearth groups. The mean local group size is 13.6 based on Table 5 (2, pg. 123). “In the period 1969-70 the Bara Maku were

distributed in 16 local groups. Of these only five consisted of a single hearth group; the remaining eleven included two or more hearth groups” (2, pg. 121).

**5.2 Mobility pattern: (seasonality):** The Bara Maku are semi-nomadic in that they do not spend more than a few years in one base camp. A local group will spend at most 6 months in the base camp and the rest of the time is spent traveling to hunting camps or visiting other kin or working for the Tukanoans. “These local groups show a strong tendency to fuse and fission; local groups also tend to shift the locations of their base camps every few years (Reid 1979; personal observation). A typical local group spends some six months of the year in a base camp located near a small stream in the upland forest and then spends the rest of the year traveling in remote areas of the forest on hunting expeditions, visiting with kin in other base camps or working for Tukanoans in Tukanoan settlements” (4, pg. 9)

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

Maku are grouped into clans and into larger exogamic units. “Maku social groupings based on unilineal descent, such as patrilineal clans and the larger exogamic units into which these clans are hierarchically organized, are cross-cut and dispersed amongst the regional and residential groups which Maku actually form” (2, pg. 107).

**5.4 Post marital residence:** Ideally the Bara Maku practice viri-patrilocality: the wife is brought into the husband’s local group and they create their own hearth group. This is not always the case however. For various reasons a husband may join the wife’s local group. “Children live at the hearth group of their parents until they marry...at marriage, both spouses must leave their respective hearth groups and set up a new hearth of their own...the Bara Maku say that residence at marriage should be viri-patrilocal...However, although this is ideal, it does not always work out in practice...A father may be reluctant to let his marrying daughter leave, especially if he is a widower or if his wife is very old and he depends on his daughter for work in the garden and the production of manioc foods and drinks” (2, pg. 132, 134).

**5.5 Territoriality? (defined boundaries, active defense):** NOT FOUND

**5.6 Social interaction divisions? (age and sex):**

Children are under the authority of both their mother and father. As boys become older they gradually free themselves from their mothers authority, but remain under the authority of the father. Daughters remain under the authority of both mother and father. A son is independent of both parents when he marries. “Whilst they are young children are under the authority of both their father and mother. As they grow up boys become freer of their mother’s authority...Girls remain under the authority of both parents, particularly that of their mother...A son becomes independent of his parents when he marries unless one of them had died and the survivor is dependent on him and his wife” (2, pg. 165). Brothers of the same father are very close as children and spend most of their time playing together. As they grow older the age distinction becomes more prominent as brothers recognize competition between each other for mates. “Brothers who are the children of the same father are very close as children and adolescents...playing together or hunting and fishing with their father. As they become adult the seniority distinction between elder and younger brother becomes more effective. They can be competitors for the same marriageable girls...Relations between mature adult brothers tend towards friendly formality. Separation between male siblings and disputes between male agnates has already been noted in the development and fission of local groups” (2, pg. 166-167). Brothers and sisters also play together, sleep together, and bath together as children. Girls, before maturity, begin to spend their time with their mothers while boys continue to play or spend time with their fathers. “As very small children brothers and sisters play together...during adolescence and before marriage brothers and sisters become close- they tease each other, they go bathing together, and lie together in the same hammock...before maturity girls begin to help their mothers whilst boys continue to play together” (2, pg. 167). “Sisters have a closer and less tense relationship than brothers but do not equal the cross-sex sibling bond in solidarity” (2, pg. 168).

**5.7 Special friendships/joking relationships:**

Father and son do not have a strong joking relationship but there is a strong joking relationship between a son and his mother. “The relationship between son and father is one of respect...There is never any strong joking between father and son; on the other hand a son takes liberties with his mother, occasionally addressing her with a fart and stealing her tobacco when she is asleep” (2, pg. 165).

**5.8 Village and house organization:** No formal village structure. Hearth groups gather around common cooking fires within basic huts located near small streams. Married couples and children sleep closer to the fire while adult children sleep farther away. “A hearth group...must include an adult male and an adult female, and they are usually a married couple. Never do two married couples share the same hearth...the members of a hearth group sleep and relax in hammocks slung around the fire. A married couple and small children are nearest the fire, whilst adult children sling their hammocks further away” (2, pg. 118) “Inside each hut one or more hearths are kept, and round each hammocks are slung” (2, pg. 50).

**5.9 Specialized village structures (mens' houses):** NOT FOUND

**5.10 Sleep in hammocks or on ground or elsewhere?** They sleep in hammocks, “members of a hearth group sleep and relax in hammocks slung around the fire” (2, pg. 118).

**5.11 Social organization, clans, moieties, lineages, etc:** The Maku are organized into clans or local groups made of many smaller hearth groups consisting of close kin. These groups make up a larger regional group. “The hearth group is the basic domestic and social unit. Maku social groupings based on unilineal descent, such as patrilineal clans and the larger exogamic units into which these clans are hierarchically organized, are cross-cut and dispersed amongst the regional and residential groups which Maku actually form” (2, pg. 107, 117). “Maku are organized in a system of named patrilineal descent groups or clans” (2, pg. 106).

**5.12 Trade:** material exchange with the River Indians, Tukanoans. “It is very clear that the Maku supply the river Indians with forest products. Both parties see the most important and typical Maku trade as smoked meat; but Maku also provide other things...such as wild fruits, palm leaves for roofing, tree resins, reeds for panpipes, baskets woven by Maku women from vines and, before river Indians acquired shotguns, Maku supplied them with blowpipes and hunting poison...From the river Indians the Maku receive manioc in the form of bread or cereal and also peppers and tobacco. They also obtain some secondhand trade goods...” (2, pg. 97).

**5.13 Indications of social hierarchies?**

No specific evidence of social hierarchies but it is mentioned that clans are hierarchically organized, women seem subservient to men because they are exchanged like trade, and the Maku are socially of lower status than their neighbors the Tukanoans. “Maku social groupings based on unilineal descent, such as patrilineal clans and the larger exogamic units into which these clans are hierarchically organized...” (2, pg. 117). “They practice reciprocal exchange of women” (2, pg. 106). “As such the river dwelling Tukano peoples and the semi-nomadic forest dwelling Maku-hup'du have developed a complex social and commercial system that has helped to sustain these essential protein sources, based on a hierarchical structure described as anything from “slavery” (Koch-Grünberg, 2005) to “patron-client” (Chernela, 1993; Epps, 2005), “to servants and workers” (Gentil, 2005, pg. 333).

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

**6.0 Time allocation to RCR:** NOT FOUND

**6.1 Specialization (shamans and medicine):** Sorcery is practiced and often the blame for deaths. “it is likely that competition and jealousy over women provided a basis for the dispute and sorcery accusations which led to the segmentation into two clans” (2, pg. 187).

**6.2 Stimulants:** NOT FOUND

**6.3 Passage rituals (birth, death, puberty, seasonal):** NOT FOUND

**6.4 Other rituals:** NOT FOUND

**6.5 Myths (Creation):** The creation of their world occurred after the destruction of the previous world. Idn Kamni gave being to the new world. “This earth burned. The flames came from downstream, from the mouth of Deer River. The old creation was all burned...Idn Kamni, seeing this, gave being to another creation. He took some earth and put his spittle on it. Out came this creation. We became” (2, pg. 212). “Idn Kamni made the First People...he spat on the rocks of kak-tsa pa rapids of Milk River. The First People came up in the Snake-Canoe...and each tribe had its place on this Earth and each clan too. When the Maku came out of the Snake-Canoe Idn Kamni gave them blood of the Sun's Navel to lick...That is why today Maku have tongues that sting – a river Indian is afraid of a Maku curse, he goes away, becomes sad and dies” (2, pg. 214).

**6.6 Cultural material (art, music, games):** Music is customary during drinking parties, “the other incident concerns musical instruments, flutes and panpipes, which are a main feature of the drinking parties held in the settlements” (2, pg. 60).

**6.7 Sex differences in RCR:** Men and women sit separately during drinking parties. “Men and women sit apart and [children] sit with the women or play about near them...[young] men play panpipes and dance together with [young] girls. [Old] men do not usually play panpipes and dance with girls but sit together and dialogue or chant” (2, pg. 164).

**6.8 Missionary effect:** NOT FOUND

**6.9 RCR revival:** NOT FOUND

**6.10 Death and afterlife beliefs:** No evidence of a belief in the afterlife. People are made of the earth and must be given back to the earth when they die. “[Idn Kamni] took some earth and put his spittle on it. Out came this creation. We became. Thus when we die – when we have sickness – we give back these bodies again. Idn Kamni made us bodies with this earth. We return this borrowed earth, we pay what we owe” (2, pg. 212).

**6.11 Taboo of naming dead people?** NOT FOUND

**6.12 Is there teknonymy?** NOT FOUND

**6.13 Briefly describe religion (animism, ancestor worship, deism, magic, totems etc.)** NOT FOUND

**7. Adornment** NOTHING FOUND

**7.1 Body paint:**

**7.2 Piercings:**

**7.3 Haircut:**

**7.4 Scarification:**

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

**7.6 Ceremonial/Ritual adornment:**

**7.7 Sex differences in adornment:**

**7.8 Missionary effect:**

**7.9 Cultural revival in adornment:**

**8. Kinship systems**

**8.1 Sibling classification system:** Dravidian kinship system. Any two clans are related to each other as ‘siblings’. “genealogical memory does not extend further back than two generations. Any two clans are related to each other either as agnates...in which case they stand in an unequal relationship of senior and junior to each other, or else as affines – they practice reciprocal exchange of women. The kinship system is Dravidian in its essential features; any person should only marry a real or classificatory bilateral cross-cousin, which is to say a member of an affinally related clan who is of the same generation” (2, pg. 106).

**8.2 Sororate, levirate:** NOT FOUND

**8.3 Other notable kinship typology, especially cross-cousin (MBD/FZD) typology (Crow/Hawaiian/Omaha etc.):** NOT FOUND

**9. Other interesting cultural features (list them):**

**Numbered references**

1. <http://www.travelmath.com/cities/Mitu,+Colombia>
2. Silverwood-Cope, Peter L. A Contribution ethnography of the Columbian Maku.
3. Milton, Katharine. "Morphometric features as tribal predictors in North-Western Amazonia." *Annals of Human Biology* 10.5 (1983): 435-440.
4. Milton, Katharine. "Protein and carbohydrate resources of the Maku Indians of northwestern Amazonia." *American Anthropologist* 86.1 (1984): 7-27.
5. Rara, Avis. "Services on Demand."