Yanomamo

The Yanomami peoples are a group of indigenous to the northern Amazon rainforests, known for their maintenance of a traditional horticultural, hunter-gatherer lifestyle and violent social traditions. Their use and preservation of resources has been one of the most studied cases in the region for the last thirty years (Albert & Le Tourneau 2007), as well as their diet deficiencies (Salzano & Hurtado 2004) and influx of disease from outside influence (Lizot 1991; An-Na'im 1995; Ushiñahua 2008).

**Location and Population**

The Yanomamo are located in a region that spans from Venezuela’s Upper Orinoco River to the Branco and Upper Negro Rivers of Brazil, on land that is primarily tropical rainforest (Albert & Le Tourneau 2007). The Yanomamo maintain their lifestyle in this region despite outside contact, but their population has declined to numbers near 9,000 in Brazil and 11,000 in Venezuela (Vheadline 1997). Napoleon Chagnon assigned the name “Yanomamo,” which means ‘human being’ in their language, to refer to four linguistic subgroups of this region (Ushiñahua 2008).

**Hunting and Agriculture**

The Yanomamo are the largest indigenous Amazon group to maintain their traditional system of hunting and horticulture (Albert & Le Tourneau 2007). The Yanomamo groups have established an intricate network of pathways (see Figure 2) through the forests that surround their community and have closed off certain areas due to the presence of evil spirits that commanded poor harvests (Albert & Le Tourneau 2007). Through GPS tracking, Albert and Le Tourneau estimate that the annual increase in cultivated land is about 7.8 and 10.1 hectares, and while the Yanomamo have participated in slash-and-burn farming (Ushiñahua 2008), for the last ten years they have increasingly rotated to pre-designated plots in their network every three to four years without renewing old plots. Today, as the lives of the Yanomamo become more sedentary, even six year-old plots are continually used to encourage “conservative use of surrounding lands suitable for agriculture.” Aside from using cultivated plots as long as possible, they are also reducing the size and amount of new clearings and “returning some of the secondary forest to cultivation after a brief period of recuperation” (Albert & Le Tourneau 2007).

**Diet**

As well as linking networks of cultivated land throughout the forests, Albert and Le Tourneau (2007) found that the Yanomamo designate certain regions as hunting zones, and cycle between them to prevent the loss of game population. Penn & Mysterud (2007:63) demonstrate empirically that their hunting efficiency increases with the use of differentiated zones.
The main crop staples of the Yanomamo diet are plaintains and manioc, but also include fish, insects, and wild plants, but only from time to time (Ushiñahua 2008; Oliver et al. 1975). According to Oliver et. al.(1975), most of the Yanomamo have not had access to salt except where outsiders have introduced it, and this prompted research on blood pressure patterns of the Yanomamo. Aside from having lower blood pressure overall, the Yanomamo experience no age-related increase in blood pressure (Friel & Cordain 2005). Reliance on agricultural subsistence varies between lowland and highland regions; measures of skin folds demonstrate that highland groups are food stressed even though their diets have higher caloric value than those of lowland groups (Salzano & Hurtado 2004:140). While lowland groups “expend twice as much labor time in foraging activities as they do in horticulture,” (Salzano & Hurtado 2004:140) which is the primary food source for highland groups, their intake of proteins and fatty acids contributes to a more nutrient-rich diet which thus attributes to a larger physical stature.

**Lifestyle**

The Yanomamo live communally in a “large circular house called a shabono,” (Ushiñahua 2008:np) which are each seen as autonomous communities. An opening in the center of the building is used to hold feasts (see Figure 4). As Yanomamo villages often attack others, communal living is a strategy for defense aside from serving as a focal-point for networks of cultivated land. Though depicted differently in films and books, the Yanomamo do not wear any clothes aside from a string belt; instead, they wear flowers, feathers, and paint ([see figure 3] Ushiñahua 2008). According to Ushiñahua, marriage is traditionally between cross-cousins and this allows familial relations to govern social and political structures. Michael Alvard (2009) has confirmed the role genetic kinship plays in social structuring as portrayed in Chagnon's *The Axe Fight*. Genetic relations facilitate group cohesivity, and the cooperation among relatives as predicted under kinship selection theory was the basis of village organization in the Yanomamo groups Chagnon filmed.

Ushiñahua (2008) also notes that anthropological studies have found a positive relationship between the number of wives a man has and their reproductive success, making polygamy the primary family pattern. While Yanomamo communities often interact and intermarry, no one social or political structure governs the Yanomamo communities as a whole (Early & Peters 2003).
Religion and Culture

Religion and culture are intertwined in Yanomamo life, and they primarily believe in animism and the spiritual power of shamans (An-Na'im 1995). The Yanomamo believe xapiripë, or spirits, can be found within any material on Earth (Ushiñahua 2008). A hallucinogen called yopo, made from bark of native trees and mixed with tobacco, is taken in through the nasal cavities from one person to the next, representing a flow of energy (see Figure 7). The Shamans' power to heal and strength against enemies is derived from this process. (Lizot 1991; Ushiñahua 2008)

Contrary to what might be expected, animism does not come with pacifism and a full empathy for nature for the Yanomamo; they in fact see life as a dangerous and unstable process. According to Lizot (1991:16), the Yanomamo are fond of the dogs they keep for protection and companionship, “but they mistreat them and feed them poorly; only their existence counts.” While all deaths are perceived as a form of homicide, the Yanomamo simultaneously conceive death as an inevitable, natural phenomenon (Taylor 1996). Today, the Yanomamo believe that if they continue to die in the way they are dying (from the diseases and land destruction of Whites), their spirits will “cut the ropes which sustain the present-day heaven” (An-Na'im 1995:283).

Though Taylor (1996) believes this is an ethnocentric assumption, he cites that scholars have theorized that the belief that all deaths are a form of homicide legitimizes the institutionalization of hostility and violence between neighboring tribes. When it comes to conflict with other tribes, the Yanomamo are known to kill an enemy and take a foreign woman to be married (Lizot 1991). Lizot witnessed a Yanomamo villager return home announcing he had killed a man, who then proceeded to vomit hair and fat to show he “had eaten his soul” (1991:5).
The Yanomamo, are among the first groups of indigenous people to suffer from the burning and extraction of forests and other resources; they are “at the heart of the fight to save the rainforest” (Rainforest Foundation 2009:np). Their isolation has helped to preserve their traditional culture, “but imported venereal disease, hepatitis, tuberculosis, flu and malaria have decimated the tribe” (VHeadline 1997:np). In the 1980’s gold rush, 40,000 small-scale miners flooded Yanomamo territory, spreading disease and violence as they bombed (to find minerals) Yanomamo riverbeds and polluted the water with mercury (Rainforest Foundation 2009; Ushīnahahua 2008). In 2000, Geneticist James Neel and director Napoleon Chagnon were accused of purposefully infecting Yanomamo peoples with measles and staging the film *The Axe Fight* (Kirby 2003; Ushīnahahua 2008).

As of 1998, the child mortality rate was 15 times that of the rest of Brazil (Schomberg 1998). Malnutrition, disease, deforestation, and homicide are contributing to the decline of the Yanomamo ([see Figure 8] Rainforest Foundation 2009; Schomberg 1998; Kirby 2003; Ushīnahahua 2008; An-Na’im 1995; Albert & Le Tourneau 2007; Salzano & Hurtado 2004) Davi Kopenawa Yanomami, a leader of the Yanomamo who often lobbies for conservation of the Amazon and its peoples, believes the Yanomamo need to be educated fairly and within a culturally relativistic context; “half of my people have already died...If we lose our language then we lose everything” (Schomberg 1998:np). On a more positive note, the Yanomamo have served as the focal study group for dietary studies including the effects of imbalanced salt intakes (Salzano & Hurtado 2004; Oliver, Cohen, & Neel 1975), agricultural subsistence patterns (Albert & Le Tourneau 2007), and for genetic studies (Kirby 2003). With the exception of the accusations against Chagnon and Neel, the Yanomamo have served as a respected and even idealized subject of Western health.

According to a CBS news report from November 5th, 2009, Swine Flu has reached an isolated Yanomamo group.

The deaths of six infants and a 35 year-old woman (believed to be pregnant) among an isolated group of Yanomamo villagers have been attributed to Swine Flu. This could have severe implications as the isolation of the Yanomamo makes individuals particularly prone to the H1N1 virus and more devastating symptoms.

Such an event is likely of international interest for several reasons:

1) Swine Flu is currently a global concern

2) The Yanomamo have historically been valued as “untouched” subjects in genetic and medical studies

3) NGOs such as “Survival” that have called for restricted environmental destruction as an effort to protect the Yanomamo will now have to add Swine Flu protection plans to their agenda.

The Yanomamo may not have the information to diagnose Swine Flu symptoms, and by the time outside help finds out “it's likely to be too late” (2009:np).
Figure 9: Davi Kopenawa Yanomami Shaman (http://cafodhexhamnewcastle.com)

Davi Kopenawa Yanomami, who leads a village of Brazilian Yanomami, travelled to Europe in June to insure the voice of indigenous people from the Amazon would be heard at the Copenhagen Climate Conference (Ongoing, December 2009). His goal is to pressure those in attendance to realize the implications of extracting from and destroying the habitats indigenous people are directly dependent upon.

Results are pending.

Interesting Links:
1. Myths of the Yanomami Shamans: http://www.khm.uio.no/utstillinger/yanomami/eng.html
4. Yanomamo Leaders share their thoughts on being filmed: http://www.youtube.com/watch?v=g3h4t5KOLo0
5. Brazilian views on the Yanomamo people: http://www.youtube.com/watch?v=rAhjy4HLNWl&NR=1

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Figure 1: http://www.amazondiscover.com/images/homepage/amazon_map01.gif
Figure 2: http://www.journals.uchicago.edu/action/showFullPopup?doi=10.1086%2F519914&id=fg5
Figure 3: http://gujoron.com/x/e/chul/45909/page/files/attach/images/161/909/045/3-Yanomami-Frau%5B1%5D.jpg
Figure 4: http://www.rainforestfoundation.org/files/shabono.jpg
Figure 5: http://www.journals.uchicago.edu/action/showFullPopup?doi=10.1086%2F519914&id=fg5
Figure 6: http://www.drabruzzi.com/images/Yanomamo_warfare1.jpg
Figure 7: http://img.socioambiental.org/d/239294-1/yanomami_12.jpg
Figure 8: Francisco M. Salzano and A. Magdalena Hurtado 2004. (See References Cited)
Figure 9: http://cafodhexhamnewcastle.files.wordpress.com/2009/05/davi_yanomami.jpg