Yanomami of Venezuela

Douglas W. Hume Northern Kentucky University If my people are wiped out you must destroy all photographs of us, because future generations will look at our photographs and be too ashamed at such a crime against humanity. - Davi Kopenawa Yanomami

The Yanomami¹ are an Indigenous tribe inhabiting the Alto Orinoco River region, which borders Brazil and Venezuela. The Yanomami have endured many assaults on and barriers to their survival from external and internal sources including: endemic warfare between groups, introduced diseases, invasive gold mining, and unethical misconduct of medical and anthropological researchers. Due to the remoteness of their territory, a reliable census of the Yanomami cannot be obtained, however, there is a general consensus amongst anthropologists that the Yanomami's population has decreased significantly over the past century, even though the degree of the reduction cannot be assessed. Currently, it is estimated that of the approximately 35,000 Yanomami, 15,000 of which are in Brazil and 20,000 in Venezuela. The Yanomami's language, Yanoama, has four major dialectical groups: Sanema (15%), Yanam (4%), Yanomam (25%), and Yanoama (56%) (Hames and Bierle 1995).

The Yanomami are one of the most widely known tribes of South America, largely due to Napoleon Chagnon's seminal ethnography Yanomamö: The Fierce People (1968) Kenneth Good and David Chanoff's Into the Heart: One Man's Pursuit of Love and Knowledge Among the Yanomami (1997); and Peter Rose and Anne Conlon's Yanomamo (1983), a choral work famously narrated by Sir David Attenborough (in the British Broadcast version) and Sting (in the American Broadcast version). Chagnon's ethnography continues to be widely used in introductory anthropology courses and has sold more than a million copies (Eakin, 2013). Good and Chanoff's book became a media sensation due to Good's marriage to a young Yanomami woman, bringing her and their children to live in the United States. Rose and Conlon's choral work was broadcast widely in Great Britain and the United States, resulting in many people in both countries becoming familiar with the Yanomami. The attention that

the Yanomami have received from academic and popular media has brought their fight for cultural survival into public view.

Due to the remoteness of their territory, the Yanomami had limited and intermittent contact with outsiders until the early twentieth century. Beginning in the 1940s, the Serviço de Proteção ao Índio (Brazil's protection agency for its Indigenous people, now called Fundação Nacional do Índio, FUNAI) as well as several evangelical and Catholic missionaries entered Yanomami territory (Albert, 1999a). In the years following this contact, missionaries encouraged the Yanomami to become more sedentary as well as take advantage of newly introduced goods (i.e., steel tools and other manufactured objects) and services (i.e., healthcare and minimal educational services). This contact and enticements caused changes in behavior that brought societal change as well as serious epidemical outbreaks (i.e., measles, influenza, and whooping cough due to interaction with outsiders) (Albert, 1999a). In the late 1960s, anthropologists began to visit and study the Yanomami. The most notably of these early contacts with anthropologists was with Napoleon Chagnon in 1964, which lead to Chagnon writing extensively about the Yanomami as well as assisting in the production of anthropological documentaries about the Yanomami's culture. In the following decades, the influence of government officials, miners, missionaries, and researchers had a profound effect on the Yanomami.

Yanomami Culture Sketch

While the prehistory of the Yanomami is unknown, it is believed that the Yanomami migrated from the "Parima highlands of the Venezuelan-Brazilian border and that they have recently expanded from there as a result of the decimation of Carib speakers who occupied the upper Orinoco and its major tributaries" (Hames and Bierle, 1995). The Carib speakers were a target for capture as slaves and suffered immensely from newly introduced diseases. After having established their territory, the Yanomami had contact and traded with a variety of other Indigenous groups at the edges of the Yanomami's territory (Fergusion, 2015, pp. 383-385). The Yanomami may have also been affected by Spanish, Portuguese, and Dutch attempts to trade steel tools as well as capture the Yanomami as slaves between the seventeenth and twentieth centuries (Ferguson, 2015, pp. 382-3).

Although the Yanomami probably did not have long-term direct contact with Westerners until the mid-eighteenth century, beginning in the mid-twentieth century, there was continuous contact. Currently the Venezuelan and Brazilian Yanomami are in contact with anthropologists, missionaries, and both non-governmental and governmental aid organizations.

Each Yanomami village is autonomous but may form one or more temporary alliances with other Yanomami villages. The village contains a singular *yano* or *shabono* (circular communal lean-to constructed of poles and palm thatching with a central open plaza) where there are no internal walls. Many anthropologists characterize the Yanomami as egalitarian, but there are achieved status differences among men, such as honor gained through combat, ability to make speeches, and shamanic skill. Older Yanomami men "dominate positions of political authority and religious practice" (Hames and Bierle, 1995). Village headmen come from one or more patrilines and must demonstrate skill in settling disputes, representing interests of the lineage, and successfully manage relationships with allies and enemies (Hames and Bierle, 1995).

The Yanomami economy is a mix between foraging, horticulture, trade, and wage labor, depending upon their proximity to resources and available trading partners and labor opportunities. Foraging involves gathering, hunting, and fishing. The *yano* or *shabono* is surrounded by individually managed swidden gardens that include such crops as plantains, bananas, tobacco, and peach palm. While trade within and between Yanomami communities is central to forming alliances, outside trade is limited to missions and Ye'kwana communities, a nearby Indigenous group (Hames and Bierle, 1995). By the 1990s, most Yanomami had become "dependent on outside sources of axes, machetes, aluminum pots, and fish hooks and line" (Hames and Bierle, 1995).

Yanomami divide their labor between the sexes, even when working cooperatively. Only males take part in "weapon making, tree felling (in preparation of gardens), and hunting" while women exclusively "spin cotton threat and plait baskets". In other activities, both men and women may participate, but the activity typically is predominantly the responsibility of one sex over the other, as

exemplified by the activities of "weeding and harvesting, food processing, and in fuel and water collection", which are usually done by women. (Hames and Bierle, 1995)

Yanomami kinship is organized by patrilineal descent where "members of the same patrilineage refer to themselves as *mashi*" with Iroquoian kinship terminology (Hames and Bierle, 1995). Marriages are ideally between double cross-cousins but must be at least cross-cousins. Sister exchange is common and when polygyny occurs, it is sororal. Before marriage, males provide bride service to the future bride's father's household. This service can be for various lengths of time and can last several years. Approximately 75% of marriages end in divorce with the remaining cause being death of a partner where both the levirate and sororate are practiced (Hames and Bierle, 1995).

Shamans play a central role in the Yanomami's religious beliefs and ceremonial life. The Yanomami believe that there are four spiritual planes: (1) upper-most layer "once occupied by ancient beings who descended to lower layers"; (2) the sky that is "home of spirits of dead men and women and it resembles the earth except that the hunting is better, the food tastier, and the spirits of the people are young and beautiful"; (3) the earth that contains humans, plants, and animals; and (4) the underworld that contains "amahi-teri, ancient spirits who bring harm to humans" (Hames and Bierle, 1995). Many of the illnesses that afflict the Yanomami are attributed to shamans using spirits to attack one or more of an individual's souls. Shamans control hekira spirits, which they use to cure or cause illnesses (Hames and Bierle, 1995). To remove the attacking spirit from a person, shamans decorate themselves and inhale a hallucinogenic snuff (made from the seeds of the yopo tree, Anadenanthera peregrina), which enables them to interact with the spirit world. Shamans also concoct herbal remedies to cure people's illnesses not caused by attacking spirits. While many of the shamans' activities are focus on the living, shamans are also an integral part of funerary services. Shamans preside over mortuary ceremonies, where the cremated ash of the "deceased is mixed in a plantain puree and consumed by the mourners in a demonstration of respect for the deceased and in consolation to his or her close relative" (Hames and Bierle, 1995).

Endemic Yanomami Conflict/Violence

Interpersonal violence and feuding are endemic among the Yanomami. It is estimated that, in the 1980s, thirty percent of male deaths was due to violence (Chagnon, 1988, p. 239). While most early research argued that intra-village violence was caused by reproductive access to women, later research argued that violence was linked with outside contact and natural resource use (see Fergusson, 2015). As with other Indigenous peoples caught in the cycle of endemic feuding (i.e., the Dani of Papua New Guinea), the informants often do not know the cause for the initial conflict while the explanation for the current conflict is one of vengeance.

In a feud, the patrilineal kin of one village forms a unit of vengeance against patrilineal kin of another village. The aim of a feuding raid is to kill a mature member of the opposing patriline, but either another male will be killed, or a woman captured if the primary target is not found. Alliances are made with at least one other village and the feuding patriline relies upon village co-residents for protection against attacks. Elaborate ceremonial rituals bind intervillage allies as well as cement internal village ties. Some villages are more peaceful than others, but there is a constant threat of raids from other villages and a need to reinforce alliances.

There have been three main anthropological explanations for feuding among the Yanomami: cultural materialist – conflict caused by lack of animal protein (Harris, 1984a, 1984b), sociobiologist – conflict caused by access to reproductive rights of women (Chagnon, 1988, 1990), and political economist – conflict caused by access to introduced steel tools (Ferguson, 1992, 1995, 2015 and Sponsel 1998, p. 100). Yet, there is not consensus among anthropologists as to which theory and explanation best fits Yanomami feuding. Instead, anthropologists are most concerned with the characterization of Yanomami violence (Ramos, 2008, p. 469). For example, the past president of the Brazilian Anthropological Association claimed that Chagnon's characterization of Yanomami violence was publicized by the Brazil conservative press and used as to justify the pacification

and assimilation of the Yanomami (Carneiro da Cuna, 1989, and see Chagnon's [1989] response).

Gold Mining

While natural resource extraction (e.g., rubber and hunting) occurred in the Yanomami's territory throughout the 1900s, during the 1980s nearly 40,000 Brazilian gold-miners entered Yanomami's territory in search of gold. In the ensuing violent conflict several Yanomami were killed, villages were destroyed, and exotic diseases were introduced to the Yanomami populations. These diseases were especially devastating to the population as the Yanomami had no prior experience in treating the diseases and its symptoms or immunity built up to resist these diseases. This exposure resulted in approximately twenty percent of the Yanomami dying in a seven-year time span (Survival International n.d.a). In the 1970s, the Comissão Pró-Yanomami (CCPY), a Brazilian nongovernmental organization was established. CCPY, Survival International and Davi Kopenawa, a member of the Yanomami, lobbied the Brazilian government to demark the Yanomami's territory, which would provide protection to the Yanomami and grants the Yanomami land rights to the territory they inhabited (Survival International n.d.a). In 1991, the president of Brazil signed into law the establishment of the Yanomami Park and in 1992 most of the miners were expelled from the Yanomami's territory. Miners later returned to the area in which tensions between the Yanomami and miners sometimes led to violent conflict, such as in 1993 when miners killed 16 Yanomami in Haximú village (Survival International n.d.a). Five of the miners were later caught, tried, and found guilty of genocide (Survival International n.d.a).

More recently, gold miners attacked a Yanomami community in 2012 killing up to 80 people (British Broadcasting Corporation, 2012). More recently, it is estimated that as many as 20,000 gold miners have invaded Yanomami territory in Brazil (Banford, 2019). Yanomami leaders report that the miners are entering their lands without permission, making illegal airstrips, open-pit mines, and negatively affecting their communities (Banford, 2019). Brazil's President, Jair Bolsonaro, has stated in the past that mining and agriculture should be allowed within Indigenous territories and many

believe that the miners now entering Yanomami territory have the blessing of the President (Banford, 2019).

In addition to violent conflict between miners and the Yanomami, the process of mining gold from Yanomami territory is having negative impacts upon the Yanomami's environment and health. During the process of mining, mercury is used to extract the gold from substrate materials and is usually released in the wastewater from the mine. The mercury can then easily enter groundwater and streams traveling hundreds of kilometers. Mercury is not degradable environment, nor can an organism excrete it once it is ingested. It is stored in an organism's tissues. Therefore, an organism will accumulate mercury in a body over time. Through bioaccumulation of mercury, organisms at higher levels of the food chain will have greater exposure to mercury. Humans in a mercury contaminated area can accumulate mercury through direct exposure to mercury such as drinking or swimming in the polluted water or through eating contaminated organisms. High levels of mercury in humans can lead to long term illnesses and death. In a recent study, the inhabitants of Aracaçá, one of the Yanomami communities closest to illegal mining sites, had elevated levels of mercury with 92 percent of the sampled population were contaminated with unsafe levels of mercury (Basta et al., 2016).

Yanomami Disease and Health

The Yanomami are not dissimilar to other equatorial peoples in either the diseases that they suffer or their general ill health. However, the most pressing threats to Yanomami health are infectious diseases that were only recently introduced from Europe and Africa. In regions with the most direct contact between the Yanomami and gold miners, there have been unprecedented increases in malaria, anemia, splenomegaly, respiratory infections, and tuberculosis (Ramos, 1995, pp. 278–279). Of these introduced diseases, the most virulent are "mycobacterial infection tuberculosis, the hepatitis viruses (both B and delta), other viral infections such as measles, and parasitic infections such as onchocerciasis [river blindness] and a variety of intestinal helminths [parasitic worms]" as well as new strains of malaria (Kuzara and Hames, 2004, p. 117).

While several of the diseases and parasites affecting the Yanomami have pre-contact origins, some are more recent introductions. Tuberculosis is thought to have not existed within the Yanomami before contact, but now is prevalent within Yanomami territory (Kuzara and Hames, 2004, p. 1018). While some disease origins are not well known, others have a well-documented epidemiology. Hepatitis delta was first introduced in 1968 by an American missionary who had reused needles in administering multivitamin complexes to himself and to the Yanomamö in the village (Torres and Mondolfi, 1991)" (Kuzara and Hames, 2004, p. 117).

As with other New World peoples, measles epidemics have caused many deaths among the Yanomami. The first records of measles among the Yanomami are thought to have been introduced by a Brazilian missionary in the late 1960s (Kuzara and Hames, 2004, p. 119). In a 1968 epidemic, medical researchers, government teams, and missionaries supplied vaccinations and antibiotics to prevent secondary infections, but still nearly 20% of those infected still perished (Kuzara and Hames, 2004, p. 119).

Parasitic infections usually are not fatal but will have a negative impact on the infected individual to thrive. One such parasite affecting the Yanomami is *Onchocerca volvulus* which causes onchocerciasis (river blindness). *Onchocerca volvulus* was introduced from Africa to South America during the slave trade but did not reach the territory of the Yanomami until the early 1970s and is currently common among highland communities (Kuzara and Hames, 2004, p. 119). Onchocerciasis can result in blindness and debilitate the lymphatic system (Kuzara and Hames, 2004, p. 119). Several other parasites infect the Yanomami, including "intestinal helminth, such as *Ancylostoma duodenale* and *Ascaris lumbricoides*, as well as a variety of roundworms, flatworms, tapeworms, and filarial worms and protozoans" (Kuzara and Hames, 2004, p. 119). These intestinal parasites may cause a variety of serious health problems, but more often affect the host's ability to absorb nutrients.

As with other New World peoples living in humid tropical environments, malaria is present among the Yanomami and affects their health. The most common species of malaria affecting the Yanomami is *Plasmodium falciparum* and *Plasmodium vivax*. *P.*

falciparum can cause an acute infection which can be fatal if not treated quickly. Though less acute, *P. vivax* can relapse as the parasite can stay dormant in cells and have episodic outbreaks (Kuzara and Hames, 2004, p. 1020). The lack of mosquito nets, prophylactic medicine and treatment medications results in high infection rates of malaria among the Yanomami.

Over the past few decades, several governmental and nongovernmental organizations have supplied health care assistance to the Yanomami. Since 1967, CCPY has advocated for rights, education, and health care. FUNAL the Brazilian Indigenous protection agency, has worked with Brazilian Government's National Health Foundation (FUNASA) to provide health care for the Yanomami, but are plagued by corruption and disorganization. Since 2004, the Brazilian Yanomami's own NGO, Hutukara (the part of the sky from which the earth was born), has been advocating for the Yanomami and working towards improving education and health care. In the same vein, Venezuelan Yanomami organized their own NGO, Horonami, created in 2011. In addition, another NGO called Urihi, has been working with the Yanomami specifically on Malaria since 2000. At times these governmental and non-governmental organizations work together, but more often political differences between members of the leadership of each group lead to dysfunctional collaboration.

While there has been progress in issues of health among the Yanomami, parasites and diseases continue to ravage Yanomami communities. Recent problems among those Yanomami with Venezuela have recently experienced "rampant and uncontrolled epidemics of measles, malaria, and other infectious diseases" (Mondolfi et el., 2019, p. 766). The Yanomami that contracted measles in Amazonas State, Venezuela, in February 2018 had a 42% mortality rate alone (Mondolfi et el., 2019, p. 766). Malaria has also increased an estimated 41% among Venezuelan Yanomami communities (Mondolfi et el., 2019, p. 766). Without significant increases in community health care, the Yanomami will continue to suffer significant illness and deaths due to these and other infectious diseases.

Research Misconduct by Anthropologists²

The Yanomami have been the subject of research by anthropologists and medical researchers since the 1960s in part due to their minimal contact with outsiders and keen sense of cultural identity. While reports of ethics violations were dotted throughout the four decades since research began with the Yanomami, it was not until 2001 that these alleged violations became widely known outside of the small community of researchers and advocates of the Yanomami. A memo by Terrance Turner and Leslie Sponsel marked the beginning of a scandal in anthropology in a viral email to the American Anthropological Association:

We write to inform you of an impending scandal that will affect the American Anthropological profession as a whole in the eyes of the public, and arouse intense indignation and calls for action among members of the Association. In its scale, ramifications, and sheer criminality and corruption it is unparalleled in the history of Anthropology... (Turner and Sponsel 2000)

The prediction by Turner and Sponsel in their email to the AAA leadership has largely come true, "this nightmarish story... will be seen (rightly in our view) by the public, as well as most anthropologists, as putting the whole discipline on trial" (Turner and Sponsel, 2000). The story to which Turner and Sponsel were referring was Patrick Tierney's Darkness in El Dorado: How Scientists and Journalists Devastated the Amazon (2002), which detailed accounts from missionaries, researchers, advocates, and anthropologists about research misconduct by anthropologists and medical researchers. The main accusations of misconduct in Tierney's book included: (1) Timothy Asch (anthropologist and filmmaker) and Napoleon Chagnon (anthropologist) staging documentary footage, (2) Napoleon Chagnon and James Neel (medical epidemiologist) committing genocide by introducing measles, and (3) both Jacques Lizot (anthropologist) and Kenneth Good (anthropologist) committing pedophilia. In the months after Turner and Sponsel's viral email, hundreds of news agencies wrote articles, thousands of listserv emails were sent, journal articles were published, professional research associations made official statements and held public meetings, and the American Anthropological Association created the El Dorado Task Force to investigate the claims made in Tierney's book. Historical accounts of the controversy and ensuring investigation were written by Borofsky (2005) and Hume (2016) as well as being made into a documentary film, Secrets of the Tribe (Padilha, 2010).

The effect that Asch and Chagnon's films had on the Yanomami are complicated by notions of the noble savage myth ethnocentrism of viewers. The noble savage myth is romanticization of Indigenous peoples as intrinsically good and close to nature, often attributed to eighteenth-century French philosopher Jean-Jacques Rousseau—still accepted by some anthropologists, many environmentalists, and much of the general public. Asch and Chagnon's films, most famously The Ax Fight (1975), The Feast (1970), and Man Called Bee: Studying the Yanomamo (1974), showed the Yanomami behaving in ways that portrayed them as anything but noble. In The Ax Fight, the Yanomami are shown participating in violent club and ax fights as well as verbally insulting one another. In The Feast, the Yanomami are shown in ceremonial displays of warfare and chewing Pe (green tobacco). Finally, in Man Called Bee, the Yanomami are shown interacting with spirits after taking hallucinogenic snuff – an activity that makes them appear to be acting as monkeys eating dirt. While the Yanomami behavior in the films is not strange to the Yanomami, to outsiders their behavior appears strange, animal-like, primitive, and violent, to name a few. The portrayal of the Yanomami in Asch and Chagnon's films directly confronts the myth of the noble savage, but also results in the perception of them as needing outside intervention to civilize their savage nature, be it education, pacification, or missionization.

A team of researchers in a 1968 expedition to Yanomami territory lead by Napoleon Chagnon and James Neel are accused of committing genocide by introducing measles and other contagious diseases in *Darkness in El Dorado*. While the claim that the expedition caused the epidemic leading to many Yanomami deaths has been discredited (American Anthropological Association, 2002), hundreds of Yanomami still fell ill and many died. From the expedition lead researcher's perspective (i.e., Chagnon and Neel), they came prepared to collect biological and cultural data on Yanomami

diseases as well as bringing various medication, including measles vaccines, to treat the Yanomami. Early in the expedition, Chagnon and Neel realized that a measles epidemic was spreading through Yanomami communities and they endeavored to administer the vaccine to as many Yanomami as possible. However, although many attempts were made to secure additional vaccines from various sources while they were in the field, Chagnon and Neel did not have enough of the vaccine to vaccinate all of the population with whom they came into contact. In addition, many of the communities where they administered the vaccine already had prior exposure to measles. From the Yanomami's perspective, the expedition arrived, gave them medication, and soon afterwards their friends and family members acquired measles, many dying from the disease or secondary infections. Given the order of events and the perspective of the Yanomami, the researchers are to blame for the numerous deaths in their communities.

In Tierney's Darkness in El Dorado, two anthropologists, Jacques Lizot and Kenneth Good, are accused of pedophilia while they were ethnographic long-term conductina research in Yanomami communities. While the American Anthropology Association's (AAA) Dorado Task Force did not investigate claims anthropologists other than Chagnon, the later documentary film, Secrets of the Tribe (2010), takes the accusations of Lizot and Good's behavior as one of the major points it investigates. Lizot, a student of Claude Levi-Strauss, spent three decades living with and studying the Yanomami. His written ethnographies (Lizot, 1977, 1985) have been celebrated, while his sexual relationships with young Yanomami, often in exchange for trade goods, either went unnoticed or were ignored. While the Yanomami still remember his sexual behavior (Padilha, 2010), he returned to France and has not been charged or censured. Kenneth Good in David Chanoff's ethnography of the Yanomami. Into the Heart: One Man's Pursuit of Love and Knowledge Among the Yanomami (1997), describes how Good was betrothed to a Yanomami girl when she was approximately nine years old. Good consummated the marriage when she was approximately 14 years old and Good was in his thirties. While among Yanomami, the ages for Good's wife to marry and consummate her marriages is

customary, Good was heavily criticized for following Yanomami, rather than his own, cultural norms for the minimum age of consent for marriage and sex.

One of the recently resolved controversies surrounding research ethics is the issue of blood samples collected from the Yanomami from the 1960s to 1990s. In addition to the Yanomami not understanding why the blood samples were initially taken (informed consent requirements in the 1960s to 1980s were not as regulated as they are today), the Yanomami do not keep physical remains or possessions of the deceased. At death, a Yanomami's body is cremated, and their possessions destroyed, separating the dead from the living. After nearly a decade of requesting that the blood samples be returned to the Yanomami, in 2006, the laboratories holding the samples agreed to return them to the Yanomami (Adams, 2010). It was not until 2015 that 2,693 blood samples were returned to the Yanomami and buried "during a special funerary ceremony presided over by shamans in the Yanomami community where many of the samples were collected" (Survival International, 2015a). The return of the Yanomami's blood samples is the only research ethics controversy that has been resolved.

Missionaries Among the Yanomami

The primary aim of missionary groups that work with the Yanomami is to convert the Yanomami to the missionaries' system of religious beliefs, which attempts to replace an Ondigenous world view (i.e., religious beliefs, knowledge, values, morals, and ethics) with a Western world view. The Indigenous world view is never wholly replaced, rather, results in a syncretism—a combination of both world views. In addition to religious conversion, missionary groups purport to have more secular and humanitarian goals related to health, economic, and education to achieve. Depending upon the missionary organization's objectives secular and non-secular goals are given varied in importance in both the public and implicit agendas.

The three largest and longest-term missionary groups working in Yanomami territory are: Salesian Missions (http://www.salesianmissions.org/), a Catholic missionary organization that has been among the Yanomami since the 1950s; Mission Padamo Aviation (http://www.mpaviation.org), an evangelical

Christian missionary organization that focuses their efforts on the and New Tribes Mission (https://usa.ntm.org) organization evangelical missionary Christian that operates worldwide. In October 2005, Venezuelan President Hugo Chavez expelled New Tribes missionaries, a Florida based evangelical Christian mission, from the Yanomami territory in Venezuela (British Broadcasting Corporation, 2005b). Chavez cited concerns that they were collecting information for the United States Central Intelligence Agency as well as using luxury planes and dwellings, thus bringing capitalism to Venezuela, charges that New Tribes denies (British Broadcasting Corporation, 2005b).

While there are some anthropologists who support the work of missionaries in the same communities in which the anthropologists are working, many more researchers view missionary work as being destructive to Indigenous cultures because the missionary work are agents of culture change. One such anthropologist who views missionary work as having a negative effect upon the people he studies is Napoleon Chagnon. Chagnon has a long history of conflict with Salesian missionaries, whom he viewed as not only changing Yanomami culture, but also for increasing violence and disease among the Yanomami (Chagnon, 2013, pp. 405-422). Chagnon interviewed one missionary to investigate why the missionaries were giving Yanomami shotguns and ammunition when the Yanomami had previously only had clubs, bows, and arrows. He was informed that as the Yanomami became more reliant on non-renewable materials such as ammunition for hunting, the Yanomami would have to be more dependent upon source (i.e. the mission) of these difficult to obtain materials. Thus, the Yanomami would be forced to return to the mission with increasing regularity. Therefore, the missionaries had more access and time to convert them to Christianity. When Chagnon informed the missionary that a shotgun had been used by a Yanomami to kill another Yanomami, the missionary reported that it probably was not one of the shotguns that they had given to the Yanomami.

The Yanomami Fight for Cultural Survival and Self-Determination

At the forefront of the Yanomami's fight for cultural survival and self-determination is Davi Kopenawa Yanomami. He is instrumental in

the Yanomami's struggle for self-determination as he is the face and voice of the Yanomami to the outside world. Kopenawa was born around 1956 in *Marakana*, a Brazilian Yanomami village near the Venezuelan border (Kopenawa and Albert, 2013, p. 3). When he was a child, his parents died from introduced diseases brought to his community by missionaries, road workers, and gold miners. Later in the *Watoriki* village, he apprenticed to be a shaman under his father-in-law. As a shaman he was attributed high status in his community. Along with having achieved high status as a shaman, Kopenawa also acquired essential communication skills. Unlike most Yanomami, he is fluent in Portuguese which he learned from a nearby mission. These skills enable him to be a voice for the Yanomami and communicate directly with the outside world.

Kopenawa began working with FUNAI in the 1976 as an interpreter and traveled to many uncontacted Yanomami communities (Kopenawa and Albert, 2013, p. 3). He assisted in bringing medical aid to the Yanomami. This began his lifelong career as a spokesperson for the Yanomami and an advocate for their human rights. In the late 1980s, Kopenawa left Brazil at the invitation of Survival International and spoke to the Swedish Parliament about the plight of the Yanomami people. He has since visited, spoken, and advocated for Indigenous rights in the United States, Japan, Venezuela, and several European counties. Kopenawa has also addressed the United Nations in Geneva and New York where he was presented the United Nations Global 500 award in 1988 for his contribution for environmental preservation (Survival International, n.d.b). In the years following, Kopenawa founded and became the president of Hutukara (Yanomami Association) in 2004, honored by the Bartolome de las Casas award in Spain in 2008 and awarded Brazil's Order of Cultural Merit in 2009 (Kopenawa and Albert, 2013, p. 4-5). Kopenawa, with his close friend the anthropologist Bruce Albert, wrote an autoethnography of his life, The Falling Sky: Words of a Yanomami Shaman, published in 2013.

In addition to Kapenawa's advocacy for Yanomami cultural survival, both governmental (i.e., FUNAI) and non-governmental (i.e., CCPY and Hutukara) agencies have worked towards securing

Yanomami rights and assisting them with health and educational development.

Over the past three decades, these organizations have had several successes. In 1995, the CCPY began to work on a literacy program in a limited group of villages and, by 2004, "there were 38 schools operating in seven regions totaling nearly 1,700 people, 470 students, and 25 Yanomami teachers" (Ramos, 2008, p. 473). Although the official language of Brazil is Portuguese, the classrooms are mostly taught in the local language, which has enabled the Yanomami to communicate throughout their territory with written messages. Their ability to write in Portuguese has enabled the Yanomami to make their case to Brazil's government for rights and protection. The schools also facilitate visits to other Indigenous communities outside of the Yanomami's territory as well as visits from outside Indigenous groups.

In 2011, the Venezuelan Yanomami developed their own advocacy organization, called Horonami (Survival International, n.d.a). Horonami released a statement in 2012 which detailed the negative impact (e.g. violence, disease, and environmental destruction) that illegal gold mining was having on their communities (Horonami Yanomami Organization, 2012). It is unclear whether their statement spurred the Venezuelan government to action, other than opening an investigation into the allegations (Neuman and Díaz, 2012).

The Future

While the Yanomami have suffered invasions into their territory by anthropologists, gold miners, missionaries, and others, there is hope among the Yanomami and their advocates that the Yanomami and their culture will persist into the future. As is the case with other Indigenous peoples, advocating for land rights, health care, education, and other development opportunities communication with the outside has proven difficult due to language and cultural barriers. The Indigenous people must participate in, what amounts to, a foreign culture's political and legal system while communicating in a foreign language. Most Indigenous groups must rely upon outside organizations to advocate for them. For the Yanomami, these outside organizations include FUNAI and CCPY. However, the advocacy of

Davi Kopenawa, whose skill for speaking on behalf of the Yanomami to politicians in Brazil and other leaders in the international community has brought the concerns of the Yanomami to the public directly from an Indigenous perspective. In addition, the Brazilian Yanomami's Hutukara and Venezuelan Yanomami's Horonami organizations have begun to build cohesion within internal Yanomami advocacy work. For advocates of the Yanomami, there is reserved hope that the Yanomami people will survive and have the right to determine their own future.

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The most common current spelling is Yanomami, but may also be spelled Yanomama, Yanomamo, and Yanomamö. For an explanation of the Yanomami ethnonym, see Albert 1999b.

² For much more information, including biographies, blog posts, book reviews, email threads, film reviews, journal and news articles, position statements, and bibliography of materials related to the Darkness in El Dorado controversy, see the author's web site http://anthroniche.com/darkness-in-el-dorado-controversy/.