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Complexities of Simple Hunter-Gatherer Societies

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Abstract

The purpose of this report is to explore the world of hunter-gatherers to better understand their ancient way of life. I explored their traits, traditions, knowledge, and interaction with their habitat. From these findings, hunter-gatherers are shown to be low-tech but still complex in their lifestyle.

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Authorship Page

All sections of this report were written by Ernesto Gonzalez.

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Introduction

In Jared Diamond's "Guns, Germs, and Steel", he notes that human society naturally progresses through certain stages, like hunter-gatherers to agricultural societies, to kingdoms and finally modern industrial societies. As groups in each stage develop or gather technology, improve food production, improve organization, and improve weapons, these groups would naturally go to the next stage of societal development. Diamond does not put a lot of weight on cultural differences among tribes unless that affects the rate of technological change through innovation or adoption of technologies developed elsewhere. Culture plays a far more significant role in the development of a people than that, however, there are several groups of hunter-gatherers that have sufficient technology, have plenty of food, and a harmonious social organization, and yet have stayed in the hunter-gatherer stage for thousands of years in balance with their natural environment. Although Diamond portrays hunter-gatherers as primitive, these groups have developed sophisticated methods of living with nature that are anything but primitive.

Literature Review

In order to properly understand hunter-gatherer, several books were read in order to understand as well as possible, for an outsider who has never lived with or visited them, their culture, attitudes, and technology.

Guns, Germs, and Steel

Why are some societies rich in technology, wealth, and power, while other societies lack them? This is the question that Jared Diamond addresses in his book "Guns, Germs, and Steel". Why did Europeans explore and colonize Africa, Australia, America and portions of Asia and not the other way around? Diamond suggests that it happened the way it did because of events in the distant past, when civilization first developed. Diamond refers to the "proximate" results of these ultimate developments guns, germs, and steel. However it is not recent technologies leading to colonization that interests him, Diamond attempts to explain these events based on geography and technological advances in prehistory and early history and pointedly omits culture as a explanatory variable in his theories about the origins of global inequality.

Let us start from the beginning. As Diamond sees it, the catalyst for "civilization" was the domestication of plant and animal species. This first happened in Southwest Asia around 8500 B.C., China around 7500 B.C., in America around 3500 B.C., and in Africa around 3000 B.C. For this to happen, several factors must be present. Candidates for domestication must be present. The domestication of the species must be more rewarding than hunting or gathering them in the wild. That way those that experimented with farming or herding a rewarding species could have an edge over their huntergathering counterparts by having more food readily available.

The domestication of plant and animal species led to food surpluses which produced a larger, denser, populated which in turn facilitated the development of stratified, sedentary societies. The food surpluses allowed for people to devote themselves to tasks other than food production. These people specialized in diverse fields such as artisans, kings, priests, and bureaucrats. These more complex societies are better suited to maintain order and wage sustained wars of conquest better than bands of hunter-gatherers with part-time, seasonal warriors.

These sedentary societies eventually developed centralized societies which developed into great civilizations. Noticing Southwest Asia's giant head start in comparison with other regions in food production, it is understandable that this region is known as the cradle of civilization, where the first great civilizations emerged such as the Sumerians and the Babylonians, which were built around irrigation systems which aided food production to feed its growing population centers.

The emergence of dense societies with domestic animals brings us to one of the central themes of the book, germs. Diverse epidemic diseases of humans evolved from the germs of domestic animals, such as small pox, measles, and the flu. Domestic animals used to live very closely with humans, especially at night when they were kept close to provide warmth. This close proximity to animals facilitated the spread of mutated germs. The dense societies these people lived in allowed epidemics to develop, spread, and maintain themselves for years at a time. These first human populations that were exposed to these diseases were decimated, the survivors bread and then evolved a population wide resistance to such diseases. When these partly immune people carrying the disease spread into new areas and contacted with people who have had no previous

exposure to the germs, the newly exposed people would suffer epidemics which resulted in up to 99% of the population being killed. Hunter-gatherers never had such problems with disease before since they do not live in such close proximity to domesticated animals, and the ones that due live in small groups so an epidemic is not able to propagate making development of immunity difficult. But a "sedentary" society with some immunity to disease could spread their germs to these hunter-gatherers, aiding in their displacement, or replacement by a genetically resistant biological stock.

Great epidemics have devastated populations. In Europe, the bubonic plague was brought in from the Far East by nomadic herding people of the steppes. The dense urban centers of Europe were an ideal place to propagate the plague, as well as other diseases. Over time, Europeans developed some resistance to a variety of diseases. During the European conquest of the New World, Europeans brought these foreign germs that the Native Americans had never encountered, and hence, and no biological defenses against. Far more people died as a result of Old World diseases than at the hands of the Europeans themselves. In some places, such as the Mississippi Valley, the diseases would arrive in advance of the Europeans. Early explorers of the Mississippi Valley reported numerous large villages practically deserted due to epidemics. European explorers had trouble penetrating into the interior of tropical Africa due to diseases that they had no resistance to, like malaria, which the native Africans had immunity to. This halted the European conquest into the interior and limited them to the coast.

Another result of dense societies is technology. A large specialized population translates into a large intellectual/creativity pool. This technology can manifest itself in various forms. In agriculture, new methods and tools can improve the productivity of the

land. In political organization, methods of record keeping (such as writing) or better organization of the bureaucracy can make governing more effective. In warfare, better weapons and armor can be developed. All these advancements are made easier with large, dense, sedentary, and stratified societies, which allow these societies to grow and flourish. It is not to say that hunter-gatherer societies do not have technology. They develop tools and medicines that usually do not have much impact on their habitat. A lot of times these medicines are much more effective than the conventional drugs used today.

The diffusion of technology is of utmost importance. Contact and trade with other regions is the principle way for a society to gain guns, germs, and steel. No region in the world has all the "useful" plant and animal species, and no society in the world can develop all of the "useful" inventions. Coffee is native to Ethiopia, but through trade and the adoption of this crop by far off nations, has become the principal crop in such far flung areas such as Latin America and Southeast Asia. Gunpowder was developed in China, but through trade, other societies were exposed to it and applied it to get an edge over their neighbors, such as the Turks when they used cannons to lay siege to Constantinople.

High connectedness is both a blessing and a curse with regards to the diffusion of technology. South China and North China were unified politically in 221 BC. The interior of China was connected to the coast by rivers, and the North was connected to the South by sea routes. With political unification, the connection was more secure. The North's contribution to technology included writing and bronze technology while the South's contribution included rice cultivation and cast-iron technology. This political unification gave China a huge edge over other societies. China led the world in

shipbuilding, navigation, and mechanical technology. The high connectedness of China aided in making the country highly organized and efficient, the bad side to this is that an incorrect policy will effect the entire population. For example, with the single decision of China's rulers to forbid shipbuilding of oceangoing vessels, a technology was lost that would have aided in future exploration and trade which would have put them in a position to compete with Europe in the future but since, at the time, it was not considered essential, the rulers turned their attention to other matters instead. With the decision of a few people, China took a huge technological step backward. Because of the decision of this small group of people over 500 years ago, China could have been the nation that explored and colonized the corners of the world instead of the Europeans.

Medium connectedness between regions seems to be more beneficial with regards to diffusion and adoption of technology. Europe is separated by various mountain ranges and bodies of water, and for much of its history (including today) was politically fragmented into various kingdoms and principalities. As these states competed with each other for wealth and power; any technological edge could tip the balance in their favor. If one ruler rejected the development of a certain piece of technology, another ruler could encourage the development of that technology and reap the benefits. Christopher Columbus was rejected by four different rulers to finance his trip across the Atlantic before the Queen of Spain agreed to finance his expedition. This decision was a gamble that gave huge returns to Spain, if any of the other four rulers had agreed to support Columbus, the political landscape of Europe and America could have been greatly different, or if all of the rulers rejected the expedition, the political landscape and development of America would be vastly different than what it is today.

A very low connectedness between regions obviously would also mean very little diffusion of technology. The societies in these regions would depend solely on technology developed by the local societies. These regions, such as Australia (huntergatherer) and the interior of New Guinea (horticultural), have maintained essentially the same kind of lifestyle for hundreds of years.

For much of ancient history, the societies of Southwest Asia and China have been technologically ahead of the rest of the world in fields such as transport, weaponry, political organization, shipbuilding, navigation, military organization, food production, etc. This is not to say that other civilizations were not advanced in other areas. The civilizations of America were quite advanced in astronomy, able to predict solar and lunar eclipses. The reason why the societies of Southwest Asia and China were advanced in so many aspects was because they had much contact through trade.

The East-West axis of Asia, along with few formidable geographic boundaries (at least in the north), favored trade since most of the civilizations lived in similar latitudes. Similar latitudes translate into similar climates and weather conditions. So developments in agriculture could be readily transferred across the continent. Each continent has unequal environmental conditions. Asia had many more candidates for domestication than Africa, Australia or America. The larger chances of plant and animal domestication in Asia, coupled with the larger population in that area in prehistory favored that area for the earliest plant domestication. This early domestication compounded with contact with various other civilizations with similar climates gave Asian societies a huge edge over the rest of the world during the early days of civilization.

The North-South axis of Africa and America, along with formidable geographic barriers made contact between different societies on these continents more difficult. The various latitudes that exist in both Africa and America make the spread of crops far more difficult because of the different climate zones. The geography goes from temperate zones, to tropical, to temperate, along with high mountain zones. The small geographic areas sharing the same latitude in comparison to Asia reduces the possibility of available candidates for domestication. When crops were domesticated in Africa and America, they could not spread throughout the continent without adaptation because of the difference in climates. Diffusion of technology was impeded in both these continents because of geographic barriers. In America, the thick forests of Panama, the deserts of what is now Southwest of the United States, and the Rocky Mountains. In Africa, the large dry savannas, thick tropical forests, and the desert have made transfer of crops and technology very difficult. When the Bantu people of West Africa developed their agriculture and spread south throughout tropical Africa, they could not effectively settle the dryer Mediterranean climate further south since they did not have crops adapted to that climate.

When one group had a technological edge over another, they would usually spread and settle that new area. This is seen with the Bantu expansion in Africa, the Chinese expansion into Southeast Asia, and the Austro-Polynesian expansion in the East Indies and Polynesia. If the group is being invaded by newcomers, they have to choose one of two paths: adopt and adapt the new technology or get displaced. For example the Khosians were displaced by the agricultural Bantu out of vast areas of Africa. They did

however adopt livestock from the Bantu, and exist in only small areas that the Bantu farmers do not inhabit due to its aridness.

Rejecting technology isn't just a preference for some groups; it goes hand in hand with their philosophy. They determine themselves that some forms of technology are not compatible with their lifestyle. Other times it is an unconscious decision on the part of the society not to adopt technology because they are getting along well without it. While some societies value material wealth, others value family, inter-personal ties and personal honor above all else. Some societies are highly minimalist and see it as absurd to have more things than they can carry. This is in stark contrast to the majority of other societies that compete against each other for wealth and power.

It is quite apparent that some societies have much more material wealth than others for various reasons in the past, but are these societies necessarily better? Is the quality of life of "civilized societies" better than the ancient alternative?

Tales of a Shaman's Apprentice

"Tales of a Shaman's Apprentice" is the story of Dr. Mark J. Plotkin, ethnobotanist, and his research expeditions in South America. Plotkin's objective in these expeditions was to learn, from various indigenous groups, the curative properties of Amazon plant species. Many native shamans have not been able to recruit apprentices to carry on their knowledge, when they die, they would take their priceless wisdom of their forefathers with them, Plotkin wanted to document their knowledge so that this oral lore would not be lost in one more generation.

The first group that helped Plotkin in his quest were the Maroons of Suriname.

The Maroons are descendants of runaway slaves who escaped their masters and reverted to their way of life in the rain forest. With time, the Maroons soon adapted the plants in their new home to their uses, such as medicine. When Plotkin arrived at a Maroon settlement, a "civilized" Surinamese boy was sent with him to receive treatment from a Maroon medicine man, showing how Surinamese outsiders respected their knowledge. Plotkin soon began his apprenticeship with the medicine man, documenting all the plants and their medicinal uses. After the Maroon had instilled Plotkin with their knowledge, they told him that although their medicine is great, the Indians have better ones.

"In the jungle, the Indian knows everything" – Surinamese proverb

The next year, Plotkin returned to Suriname and ventured deeper into the interior to learn from the Indians, his next teachers. Plotkin visited a village called Kwamalasamoetoe, it was a "super village" of about three hundred. The evangelists concentrated the Indians into these large villages to make it easier and more efficient to convert them. Although this strategy erodes the culture of the Indians, it is the perfect

opportunity for Plotkin to study several different tribes in the convenience of the same village. His arrival could not have come any later, since many of the villages great shamans were nearing the end of their lives and had never had an apprentice to carry on their knowledge. It was difficult for Plotkin to get the shamans to reveal all of their knowledge to an outsider, but with a little charm, he was able to learn a great deal from the shamans. After being the apprentice to shamans of different tribes (such as the Tiriós, Waiwais, Kaxuyana and the Apalai), Plotkin discovered that each shaman would use the same plant for different uses, and would cure the same ailments with different plants. Realizing this, he decides that he must visit a variety of different tribes to learn further.

Plotkin then went on more expeditions to study under the Tiriós and Wayanas of another "super village" in Brazil, and then later with the Yanomamo on the border of Venezuela and Brazil. He learned great things, including how to make curare, the neuropoison that the natives use to tip their arrows.

After spending months at a time learning from the Amazonians, Plotkin then compiled all of his work together into an organized form so that he could give these books back to the Tirió. The natives found the compilation to be very important, therefore they aided Plotkin in a translation of the book into their language. This book validated ancient lore as valued by modernized people and stirred up such a commotion in the tribe that the shamans were able to find themselves young apprentices within their own tribe to keep the oral tradition alive.

Word of the shaman's apprentice program has spread to natives all over Central and South America. Many have found ways to contact Plotkin so that they can participate and keep their traditions alive. Plotkin is to be admired even though his actions might

only buy us time to learn from the ancient lore, but he hopes these traditions will now live and develop further, providing new insights.

The Story of Manuel Córdova-Rios: The Wizard of the Amazon

Córdova-Rios was only fifteen in 1907 when he joined his uncle's caucho crew to harvest rubber deep in the Peruvian Amazon. One night when Córdova-Rios was alone in the rubber camp, he suddenly found himself surrounded by about fifteen naked Indians all holding primitive weapons, who took him captive. The rest of the caucho crew was missing and it is presumed that the Indians murdered them. What followed was a grueling nine-day trek deeper into the Amazon that almost killed Córdova-Rios from exhaustion.

He then arrived to the Indian's village where he was greeted with unintelligible yelling and snickering. He was taken to a large house that sheltered many people; he would remain there for several weeks taken outside only to exercise. Little by little he was allowed to spend more time outside and was eventually allowed daily showers and to participate more in the day-to-day activities of the tribe. These natives, the Huni Kui, soon had Córdova-Rios accustomed to living in the nude and accustomed to their diet of foods.

He soon noticed that he was being kept on a strict diet by his custodians. After about ten days of this strict diet, the chief took him and a select few to a secluded area of the jungle. They then sat on stools as the chief chanted and placed branches on a small fire that soon produced a fragrant smoke that enveloped the area. The chief then gave each participant a cup of green liquid, Nixi honi, a hallucinogenic elixir derived from a tree vine. What soon followed was a hallucination shared by all the participants. The participants would see visions of fantastic colors, of forest creatures, and of people. Córdova-Rios then learned that these sessions are used to learn more about the forest, to

find deficiencies in their hunting skills, to find enemies or prey, and pretty much any other problem they are facing. He was then taught how to make the vision producing extract.

Over time, Córdova-Rios soon learned the dynamics of the tribe, like the way Xumu the chief held his tribe together and coordinated hunting grounds and planting areas. Xumu then sent Córdova-Rios on a hunting expedition with some hunters to teach him the trade. He joins in the pre-hunt rituals that are filled with chants and special baths that hide a person's odor from their prey. During the expedition, he was taught how to listen to the sounds of the forest, from animal calls to the sound of fruits dropping. He learns to be one with the forest. To perfect his hunting skills, vision sessions were held.

One day, a rifle was given to Córdova-Rios (stolen the day he was abducted) and was asked to fire it and in doing so he showed his excellent marksmanship. At this time invaders to the tribes territory had been discovered. Córdova-Rios was invited to join the raiding party to eject the invaders, his job was to intimidate them with the rifle, and he did. His ability to operate the rifle increased his status in the tribe.

Córdova-Rios soon noticed that he was being groomed to succeed the chief as leader and shaman of the tribe once he passed away. The chief was having training sessions with him to spread his wisdom; a lot of it was in the form of vision sessions. He was taught how to use the plants of the forest to cure ills and their corresponding chants to cure. He was also taught the legends of the tribe, as well as the tribe's history of being pushed off its land and being murdered by rubber cutters and how the chief led them to this new land. The social dynamics of the tribe was instructed, how marriage worked,

how death was dealt with, conflict resolution, and how to manage the day to day happenings of the tribe.

The chief then asked him to teach the other tribe members to use the rifle, in which he replied that there is not enough ammunition to properly train them, they must buy more. To buy more, Córdova-Rios suggested harvesting rubber and trading it for guns. He then taught the tribesmen how to harvest the rubber and he then went to go trade it for guns. Along with guns he brought machetes and mirrors back to the tribe.

As Córdova-Rios became more and more proficient in the ways of the tribe, he was made a target by a rival tribe. On several occasions, arrows had narrowly missed him when he was alone in the forest, on one occasion only his emergency call to his friends saved him from these assassins. When the chief learned of this, he revealed that Córdova-Rios was being groomed to be chief because he is an outsider that knew the ways of the outside world and could properly protect the tribe with arms, and that his protection was a priority. The rival tribes know of this plan, and have sent assassins.

The chief then died and the responsibility of administering the tribe fell on Córdova-Rios. The tribesmen were skeptical of his performance. He took the most important male members of the tribe to a secluded glade in the forest to have a vision session. Córdova-Rios guided the vision session to a favorable result, the tribesmen were impressed and a sense of optimism came over the tribe. To further elevate his position, he had more rubber harvested so that supplies could be purchased from the outside world, he also settled conflict between the tribesmen.

Córdova-Rios soon found that some of the tribesmen raided some rubber cutters without his approval. He realized he had not yet attained full control of the tribe. He

took a symbolic trek to the old site of the village to bond with the other men to reassure his position.

Córdova-Rios had a vision session where he saw his mother in great pain as well as a vision of his own death at the hands of a rival tribesman, at this point he decided to escape and return to "civilization". He told the tribesmen that he was going to take rubber to trade for goods. He then sold the rubber, took the money, and escaped the Amazon. He made his way back to his hometown in Peru and was reunited with his family, and found out his mother had passed away 2 weeks earlier. He then became a medicine man and traveled from town to town on his own terms utilizing the knowledge taught to him by Chief Xumu.

Savages

Joe Kane's "Savages" is a book about his time amongst the Hoaurani Tribe in Amazonian Ecuador. It all started when Kane was asked to translate a letter written in Spanish at the Rainforest Action Network in San Francisco. The letter was written by representatives of the Hoaurani Tribe addressing an oil company. The letter expressed absolute opposition to oil projects on their territory since it would mean their way of life would be wiped out. Kane decided to go to Ecuador to investigate, and if possible, help this tribe.

Kane traveled to Ecuador and met with members of the tribe at a frontier town. He required permission from the military to enter the territory where the tribe lives, and since he could not get it, he snuck in. He traveled deep into the forest to their village. He lived amongst them off and on for about two years. During these two years, Kane learned about their culture. He learned about their daily life, how they viewed themselves, how they view the outside world, and their conflicts with other groups.

Kane witnessed Houarani life eroding from all sides. It was eroding culturally by missionaries in the area attempting to convert and "westernize" them. Their habitat was being poisoned by the oil companies spilling oil from their pipelines into the rivers. Oil companies sometimes westernized some natives by offering them western amenities which they get dependent on and lose their "forest abilities". Colonists were also coming into the area, extending the agricultural frontier and generally shot at natives if they came near "their" farms.

The oil companies and the government tried very questionable means to take control of the land for oil exploitation. Some members of the tribe were bribed and signed

accords claiming to represent the whole tribe. Resistance to this expropriation by Kane and leading members of the tribes involved networking with other dissident groups, documenting how many Huoarani there were and finally attend protests in Quito, Ecuador, as well as traveling to Washington, D.C. Ironically, this led to more socially concerned oil companies to withdraw, but they did so by selling development rights to less scrupulous oil companies. In the end, the oil companies got their way because the government of Ecuador, desperate for foreign currency, and unwilling to give up its claim to represent the Huoarani, as well as all the other tribes within its borders, decided to sacrifice the few for the interests of the many. It was embarrassing to find they did not know who the people being sacrificed were, and be threatened with violent resistance, but for them the problem was political. How could they get one of the real leaders to sign an agreement and sell out his people, now that the outside world had rejected the right of their "official" representatives to speak for the Huoarani? Kane watched as the Christian missionary community cooperated with official efforts to turn the loyalties of one leader, and elevate him to a position of "power", and finally get him to approve to have his people leave their homeland and go live in a "town" set up, civilize and modernize this tribe run by missionaries with a share of the oil profits all in exchange for a small fee to the "leader" in the eyes of the oil companies and not the other tribe members. The real leaders were ignored and scattered and faced death threats, exile or possible assassination. Only a short period of time went by before oil spills in the rivers occurred killing the animals the tribe feed upon. The demoralization and death rate of the "town" Indians rose to dangerously high levels. Forcing the Huoarani from their land was a death

sentence, as individuals and as a people. It would have been better to fight for their ancestral homelands as they originally intended to do.

Although their efforts to save and hold the land were futile, the Amazonian tribe's story of the struggle to survive and the cost of cooperation with the powers that be, Kane made sure it was not possible to murder them in secret. In so doing, he set the stage for environmental groups in the west to see what was going on and what was at stake. Thus Kane's book is a reminder and warning to the western world of the damage that is occurring in that area of the world and the basis for organizing future successful resistance to ecological genocide by oil companies. A people were destroyed to obtain about an hour's worth of oil needed to feed the U.S. economy. For once the murderers had to act in the open light of day rather than in the shadows of the night.

The Forest People

Colin Turnbull's "The Forest People" is about his time amongst the Pygmy people living in the Congo. The Pygmies live in the dense Ituri Forest, an isolated area that even their Bantu neighbors refuse to venture into. Turnbull immerses himself in their culture, he lives as they do, and pulls his weight for the tribe.

For centuries, the Pygmies were thought as myth or legend to the western world. Stories of the Pygmies have been reported by the ancient Egyptians, Greeks, and have even been found accurately depicted on the walls of Pompeii. Over time the western world reduced them to legends, and even considered them to not be human. When the nineteenth century came around, they were rediscovered but a shroud of mystery still covered them.

Turnbull explains how the Pygmies revere the forest in contrast to their agricultural Bantu neighbors that believe evil spirits live in the forest. The Pygmies encourage the Bantu belief by telling them stories about their encounters with fearsome spirits while hunting. They are highly minimalist, they live in simple huts made from branches and interwoven leaves that they construct once they move into a new area. What is interesting about the Pygmies, is that they are able to live in two worlds, they can live as hunter-gatherers in the forest and switch to an agricultural lifestyle among the Bantu and then go back again. If they do not return from "civilization" after too much time has gone by, they get sick. Most prefer living in the forest and usually work on farms only if they need the food. They view sedentary lifestyles away from the forest as dirty and unnatural.

The Pygmies have an intimate knowledge of the forest. They move around to different areas where they live for a few weeks or months then move on. They time their arrival to a new area with opportunities to eat, like fruit in the area or to trade and work with the Bantu when food is scarce.

The Pygmies understand the culture of the Bantu and know how to behave in their culture. They act submissive when amongst the Bantu, and perform Bantu rituals under Bantu direction. The Bantu do this because they believe it gives them a dominant position over the Pygmies. The Pygmies submit to their rituals only because it is an easy opportunity to obtain food. But once they return to the forest, they sing to make the forest happy. What is interesting is that both groups view each other as savages and animals because of their lifestyle.

Conventional wisdom holds that societies would naturally evolve into sedentary societies if the opportunity arose. The Pygmies do the opposite and are happy with their decision.

Call of the Great Spirit

"Call of the Great Spirit" narrates Bobby Lake-Thom's journey into the world of shamanism. Lake-Thom is of both Native American and Caucasian decent living in California. Lake-Thom talks about the moment he was "called" to become a healer, he seemed like an unlikely candidate.

Living in an agony that he was nearly an invalid, his condition was slowly eating away at Lake-Thom. It wasn't only the physical pain, but the psychological pain as well. He felt like he was being a burden to his Hispanic wife who has been so good to him. She goes the extra mile to care for him and he believed the she deserved much better.

Lake-Thom decides to spare both of them the agony of his existences so he attempts to commits suicide. He goes to a hill, performs a Native American ceremony and takes drugs and alcohol and passes out. He awakens dizzy and weak and finds various animals around him which moves him. He starts praying and felt a calling from an eagle to seek out a medicine man.

Lake-Thom travels to find a medicine man, which then helps him with his problems. The medicine man performs various rituals to purify Lake-Thom from the evil spirits that he has attracted with his decadent ways as a youth so that his health would recover. After this experience, he convinces the shaman to teach him his ways.

Lake-Thom experiences amazing rituals and communicates with creatures and spirits. With his new abilities, Lake-Thom finds purpose and meaning in his life. This newfound spirituality gave him the happiness he was looking for all his life. Although this new life of his caused him to split up with his wife, he knew he should stick to his new shamanistic way of life. After this, he was feeling messages from the spirit world of

to rescue a girl. He followed this feeling for many miles to an area where he met this woman who would be his new companion. She also possessed some shamanistic powers and knew that Lake-Thom was coming for her. They started a life together and trained to become great shamans.

This story reveals a surviving and ancient subculture in the heart of the most materialistic nation on Earth. Claims of extraordinary power, both for gathering information and healing the sick from Lake-Thom, a man who was fully integrated into western culture, returned to the ancient ways because he felt that he had to so that he could bring balance to his life. This story raises many questions for modern materialists to ponder.

Analysis

The hunter-gatherer societies that still exist today or did into the 20th century and were documented have, for the most part barely survived on marginal lands for western agriculture still hint at the way their ancestors have lived for hundreds or thousands of years. Through the eyes of the modern world, these societies live in harsh environments. To survive in these areas, these societies, like the Pygmies, have developed customs and traits that they have passed down through the generations as others moved into their world. However, some tribal stories do talk of recent relocation from more productive areas, like the tribe from "The Wizard of the Amazon".

The customs and social organization of the hunter-gatherer is generous and democratic. Hunter-gatherer societies tend to be very community oriented. The ¡Kung Bushmen of the Kalahari Desert place a critical emphasis on sharing. In their culture, nothing is worse than being considered stingy. Food cannot be stored for future use and they cannot buy food with money since they do not have any, so food is shared so that none of it is wasted. This custom of sharing has more than just a cultural function, it is critical for their survival as a society. Sharing is like a social safety net, if a hunter is injured and cannot provide for himself, he must rely on the people in his family and tribe to feed him. Everyone helps others, so that they can be helped in return. This sharing occurs at all levels of ¡Kung society, from the family level to the inter-tribal level.

In the "Tales of a Shaman's Apprentice", the author encounters a custom where one may not deny another a request for one of his belongings, regardless of its value. If someone admires a possession of another, that person voluntarily gives it to that person as a gift. It is considered an insult not to give it up.

In both societies gifts are very symbolic. They are an offering of respect and create a bond between the two. Personal relations are very important since they are a sort of informal alliance which may be important in the future.

The ¡Kung hold social harmony with very high regard. Conflict between members of a band is quickly diffused through argument and laughter. If this is not sufficient, the person in conflict may choose to separate themselves from the tribe for a small period of time. This way, conflict can be kept to a minimum and not affect the whole band.

In the "Wizard of the Amazon", people do not air their grievances openly. If there is a problem, the chief decides how to resolve it, and the rest of the tribe respects his decision. During celebrations, the tribe is allowed to freely express their grievances so that they may vent their anger. Once their frustrations are vented, village life resumes its harmonious course.

Sharing is not enough for a society to survive. A proper distribution of tasks and goods is required. Hunter-gatherer societies contain a relatively small number of people. There has to be some sort of coordination so that the tribe can accomplish all that it needs.

In the "Wizard of the Amazon", the chief of the tribe has unusual power, but it is based on demonstrated powers and knowledge of their world. He organizes and coordinates all activities in the tribe. All of the members of the tribe recognize his authority and submit to it. He decides issues from dividing hunting territories, to celebrations, to food distribution. When the chief recognized the need to acquire western goods, he made the whole tribe work together to harvest rubber. This rubber was then

sold so that they could buy western tools like machetes. The leader in this case has access to essential intelligence, and hence, securing his role as first among equals

Spirituality and religion play a major role to hunter-gatherers as it does to many people in the modern world but there is a difference. Hunter-gatherers draw upon their spirituality to organize daily life.

Amazonians draw heavily upon spirituality. They call on spirit deities to help them in their everyday tasks, as well as invoking them for healing ceremonies. They also believe that plants and animals hold great spiritual power. During their spiritual rituals, most make use of hallucinogens to help them collectively connect with these powers and each other.

In the "Wizard of the Amazon", the tribesmen utilized hallucinogens which aided in spiritual vision sessions which functioned to enlighten the person experiencing them.

These vision sessions are a window for the spiritual world to speak to the viewer about hunting, enemies, loved ones, or problems being faced. These vision sessions required a guide, someone to properly prepare the vision seeker to have a safe and effective vision session. This was a very complex process starting days in advance. This involved the vision seeker to be put on a specific diet and take special baths several days, sometimes weeks, before the vision session. The guide has to then prepare the hallucinogen which itself is a difficult process since it has to be made just right or else the vision session will be a failure and cause nausea to the vision seeker. The guide then takes the vision seeker to a secluded area of the forest where they can be free of external stimuli. The vision seeker takes the hallucinogen, and the guide then begins his chants. These chants serve to clear the mind of the viewer and lets him have an effective vision session. If this

procedure is not followed properly, several adverse effects can occur. The vision session can be like a nightmare and the viewer can become very sick. The strict procedure that must be followed is evidence of the great knowledge that these people possess over psychology and pharmacology. Although it is very hard to believe, but a shaman can guide several people to share the same vision. This is testament to the sophistication of control that a guide can have over the visions of a group as well as their sophisticated knowledge of plant pharmacology. This is not a primitive or ignorant group of people, and modern technology can not do all the things they do without it. They seem to be tapping a vast spiritual realm of knowledge that modern people do not believe exists.

In the "Call of the Great Spirit" health and behavior are intertwined. Lake-Thom was not leading a very virtuous life, so consequently he had debilitating arthritis. He turned to a shaman for help. The shaman used plants, juices, and prayers to help Lake-Thom make amends to the spirits for his ways. The spirits were satisfied and Lake-Thom's arthritis was no longer a problem for him. The techniques for accessing this "power" were different from the Amazon, ceremonies emphasized the use of tobacco but the results were not that different.

Although hunter-gatherers are considered to have primitive or stone-age technology, a deeper look refutes this. These societies utilize tools that they can fashion from materials found locally. This limited them to stone axes, rope made from vine, and raw man power. Although these tools are primitive, some societies have managed to make them as sophisticated as modern day tools. For example in Mesoamerica, knives and swords were made with obsidian edges. Obsidian is a naturally occurring volcanic glass, it is so sharp that it is sometimes used in cardiac surgery since obsidian blades are much

sharper that steel scalpels. In the "Wizard of the Amazon," the chief of the tribe was well aware of the superiority of western tools to his tribe's tools. The chief had his captive, the "westerner" Manuel Córdova-Rios, help his tribe acquire western tools such as machetes, knives, guns, and axes.

Hunting technology and techniques, like their tools, are both primitive but sophisticated at the same time. For example the natives of the Amazon utilize bows and arrows for long range attacks and spears for close range attacks and their silence has advantages, unlike firearms which frightens away potential game animals. At first glance it may seem very primitive, but it takes a high degree of sophistication to fabricate these hunting tools. For instance, the bows and arrows require a certain species of wood. The arrows are even more sophisticated, since they are tipped with a paralyzing substance called curare. Curare is made from obtaining certain parts of an Amazonian plant species and meticulously preparing them for several days. Curare is now used as a muscle relaxant in modern medicine.

Hunting techniques are highly sophisticated. Camouflage, concealment, and stalking have been highly developed by the native Amazonians. In the "Wizard of the Amazon", pre-hunting rituals include bathing in natural oils in an attempt to conceal the hunter's smell from their prey. They have also developed special strides so that they may move swiftly in the forest without making that much noise or disturbing the surrounding vegetation to leave no evidence of their passing. The Amazonians have also studied the calls and behavior of their prey. From hearing an animal call, they can identify the animal, where it's coming from, and what activity it is performing. They can even imitate calls to lure their prey closer to them.

The ¡Kung Bushmen of the Kalahari also possess poisoned-tipped arrows. This poison is extracted from the larvae and parasites of three different kinds of beetles. This poison wounds the animal, so that the hunter can get up close and kill the animal with a spear. Like the Amazonians, the ¡Kung are great trackers. They are able to identify and track animals based on tracks on the sand, droppings, or calls.

The Amazonians are also gifted fishermen. In the "Tales of a Shaman's Apprentice", a plant extract was put in a river and caused the fish to frantically swim to the surface, making them easy to catch. Another method utilized was using a fishing rod with a weight at the end and repeatedly dropping it into the water. This imitated the sound and vibrations that a certain fruit caused when it would drop into the water from an overhanging branch.

The Amazonian tribes and the ¡Kung Bushmen have a remarkable knowledge of the local plant life. To an outsider, it may seem that these groups come across food by chance. This is certainly not the case.

The ¡Kung, who lead a nomadic lifestyle, move about the desert in a meticulously planned fashion. The Kalahari Desert, where they make their home, has very scarce resources. They must strategize and decide where food will be sufficient during a given period of the year or else they may starve if they move into the wrong area. Once that area can no longer support them, they move on and return when they believe more resources have returned to that area. They know how much water each temporary or permanent watering hole can be expected to provide and when to harvest the limited underground water-storing roots and where they are located. Their successful strategy of moving around does not wear out the desert and distributes their impact over a wide area.

The Pygmies also strategically travel so that they may time their arrival with migratory game or with ripening fruits.

In the "Tales of a Shaman's Apprentice", both the Maroons and the native Amazonians are able to locate certain plants by noticing patterns of movement in the surrounding animal population, and how they relate to the plants and conversely by noticing the state that plants are in they know what animals will be attracted to them and when. This is because they have great knowledge about the habits of the local wild life. They can be placed anywhere in the rainforest, and they would not have any difficulty surviving, even thriving by being able to locate anything they want. This is not the specialized knowledge of the western expert, but it is knowledge at the college education level in its own context.

The medicine of the Amazonians is highly advanced. They have identified and developed a wide array of medicines made from the local plant species. From the uncountable species in the forest, they were able to find out what cures and what kills. In "Tales of a Shaman's Apprentice", the author knew about the great medicinal knowledge possessed by shamans. He sought out to record in writing the knowledge of the shamans so that even if they die, their knowledge would live on. That is a sign of respect that is undeniable, and the locals saw that and began to actively seek out and study their own lore after having considered it inferior to western knowledge.

Many of today's modern medicine are derived from Amazonian medicine.

Western companies have made a fortune from this medicine and their patents, while the native tribes have not received anything in return. Meanwhile western encroachment into the rainforest has destroyed countless species that could potentially cure a myriad of

diseases. That is why in "Tales of a Shaman's Apprentice", the author's mission to document in writing as many species as possible and their uses so that this knowledge will not be lost to mankind, but also to give credit (and royalties) where they are due in contrast to major pharmaceutical companies that have made enormous profits using hunter-gatherer plant knowledge without a single cent going to the original holders of this knowledge.

The ¡Kung Bushmen also are great healers. They practice trance medicine. They use a similar technique to heal as the tribe in the "Wizard of the Amazon", except it does not require the aid of hallucinogens to enter the trance. In trance, healers are able to draw illness out of the sick and throw it away. The ¡Kung believe that sickness is caused by spirits. Trance is achieved through singing and strenuous dancing in which the whole band participates to aid the person trying to enter a trance. These trance dances also serves to bring the group closer together and strengthen the bonds of group solidarity.

To the untrained eye, the agriculture of these societies may seem sloppy and ill-planned. In the "Tales of a Shaman's Apprentice", the author was learning the ways of Suriname's Maroon people, when he asked about a patch of weeds behind a shelter. A maroon told him it was his garden which contained herbs and medicinal plants arranged in a fashion which promoted growth and did not require too much care. The author also encountered plots of manioc planted by the Amazonian Tirió, with several different varieties of manioc. Each variety has a slightly different use.

The Maroons have criticized the monoculture which is practiced extensively in the western world, which they observe practiced by the western colonists in the area. They argue that yields will be less and that they are more vulnerable to plagues. A good

example of the risks of monoculture is Ireland in the Nineteenth century. Irish agriculture was dominated by a single variety of potato. This dependence on one species was dangerous, a great potato blight severely affected the Irish potato crop and a great famine followed forcing one third of the Irish population to leave or starve. If many varieties would have been used, as practiced by the Tiriós and the Maroons, this disaster would have been much less severe.

Hunter-gatherers have inhabited their land for thousands of years. Their environment has not changed in all of that time; they have learned to live balanced with nature. This balance is kept due to conscious efforts by the members of the tribes.

The ¡Kung Bushmen practice population control. This is important since the Kalahari is an arid desert that can only support a small population. The way this is achieved is by spacing out the birth of children. This spacing is achieved by ¡Kung women by nursing their children for as long as four years, which inhibits ovulation. Spacing their children is also useful for this nomadic society. The tribe must move to find resources to survive; therefore a tribe must travel light. A mother can only carry one infant at a time in order to be mobile. The ¡Kung, like the Tirió, also practice polygamy but a man may only be allowed to practice it if the tribe believes he can provide for a larger family. This permission helps guarantee that this larger family can be feed properly with the resources provided in the area.

In the "Wizard of the Amazon", the chief divides the hunting areas between the hunters of the tribe, so that over hunting will not be a problem. It is dangerous for a tribe's game to be depleted, not only because a source of food is gone, but because the tribe would be forced to relocate to area where game is still available. Moving a tribe to

new territory requires bringing it into contact with other possibly hostile tribes. Therefore it was in the tribe's best interest not to deplete the resources of an area they control.

Modern societies have been encroaching on hunter-gatherers for a very long time. In the "Wizard of the Amazon", the tribe was forced to relocate due to the arrival of rubber tappers. They lived along a major river, which the rubber tappers used to penetrate into the Amazonian interior which brought them into contact with the tribe. The rubber tappers shot native Amazonians on sight. With their superior weapons, the rubber tappers drove the tribe out of their traditional lands for lands deeper in the jungle. The chief recognized the superiority in weapons that the rubber tappers possessed, which is why Manuel Córdova-Rios was kidnapped, so that he bring the tribe western weapons knowledge and obtain them from trading posts.

In the "Tales of a Shaman's Apprentice" as well as in "Savages", many examples of contact between native traditional Amazonian societies are presented. These examples can be classified into two main groups: those in contact with missionaries and those in contact with "western" farmers and workers.

Missionaries have been establishing themselves deep in the Amazon to Christianize and westernize the native Amazonians. These missions start with creating "super-villages" by uniting several tribes into one location. This aids in teaching them western ways and to get them used to a settled lifestyle. The natives are taught that their culture and medicine is savage and that western ways are vastly superior. They give up their bows and arrows for guns, and abandon their tribal medicine and adopt western medicine. These people become dependent on these goods that are carried into these remote locations. Acquiring these goods requires that these natives make money by

selling goods. If prices for their trade goods drop, these natives are left to trade more for less or do without money for medicine or ammo utilized in hunting. Since tribes are taught to forget the old ways, bows and arrows made from local materials are not constructed with the same quality as before and the curare that tips the arrow that greatly aids in hunting is not able to be prepared since that knowledge is lost. The ill are left without medicine while the tribal shamans that could help them are all but extinct. The missionaries are in effect bringing these natives into poverty by making them dependent on "civilization", yet not teaching them an effective way to make a living in this civilization, and making them forget the lore that they once used to live off of the rain forest. One group that was too cash-strapped to afford ammo for hunting, tried to make bows and arrows. These of course were not as effective as they could be since the tribe members with the knowledge of making bows and arrows had died out, taking with them also the knowledge of making curare which greatly aids in hunting.

"Western" farmers and workers usually shoot natives on sight. Most out of fear while others do it since they have little regard for them. Farmers and rubber tappers who venture deeper into virgin lands of the Amazon inevitably clash with the natives. Both groups fight each other violently for control of the land. Farmers, along with the agricultural frontier, are spreading further and further into virgin forests. The land in the rain forest is very poor for agriculture as the rain forest is what gives the land its value. The poor soil, along with crude agricultural techniques practiced by the poor colonizers exhausts the land in a few years, and sends them spreading ever deeper into the Amazon. This expansion is pushing the desperate natives to a smaller and smaller area not yet devastated by the culture of death coming towards them.

Governments support missionary work so that the natives can adapt themselves with western ways, then, when there is more direct contact with the western world, the shock would not be as severe, and some will be literate in western ways and employable.

In "Savages", clashes between the native tribes and "western progress" is a central theme. The government of Ecuador has granted oil drilling rights deep in the virgin Amazon where native tribes live. These tribes face great obstacles to keep their land undisturbed from these outside forces. Although an oil rig and its pipeline occupy relatively small space in the forest, a lot comes along with it. Pipelines and their pumping stations leak oil onto the forest floor, affecting its growth. From time to time there are oil spills into rivers. These spills severely affect the native tribes. The river provides them with fish and drinking water, but with an oil spill they have access to neither. Eventually a road is built which generally spells doom for the natives. Roads open the door for colonists to come and settle the land. Colonists clear the land to make way for their crops. Once enough colonists arrive, a small trading outpost may spring up, reinforcing the colonists hold on the area.

This close proximity between colonists and natives increases the chances of either group to provoke the other. Colonists (and the government) regard the natives as inferior, it would not burden their conscience to kill one of them. The natives of course will defend their land with all they have. There is one instance where a native friend of the author's is murdered by colonists. There was no investigation by the governmental authorities. One group that lives closer toward the agricultural frontier that has clashed with the oil company and the colonists was subdued and bought off by the company for a relatively small amount of money. These natives have lost their identity and have merged

with the colonists. This is what the author of "Savages" fear for the Hoaurani. He fears that their way of life will be destroyed, sold out for a very modest contribution to the oil economy.

The Hoaurani know what is coming since they have witnessed what has happened with some neighboring tribes. These people have organized to try to pressure the government to keep off Hoaurani land. However, this has proven difficult since these people have very little education and are unprepared to face the powers that run the country. The oil companies try to isolate members of the tribal organizations to pressure them to sign deals with them for very little cost to the oil companies. These companies then claim that these tribe members speak for the whole tribe. This is a strategy the oil companies have used for decades to "legally" obtain native Amazonian lands.

The Huouarani seek to imitate what another group has done in another part of the Ecuadorian Amazon. At a national park, the natives have been able to be the official park guardians. They report any illegal activities and have the authority to remove these people from park lands and deliver them to the appropriate government authorities. They also run the parks ecotourism activities. They are guides to visitors to the park and also provide shelter for the visitors seeking an extended stay at the park. Advantages to this system is clear. First, it provides the native tribes with a source of income from tourists, however, this regular contact brings infectious diseases and developing immunity is a long and costly process, even with modern medical help. Secondly, it is in their interest that the Amazon forest is preserved so they would be the most effective park rangers. Finally, this further ensures the survival of the tribe's way of life. Although there is some change in their lifestyle, it is necessary to save their land and their traditions.

The ¡Kung's land have been slowly been encroached by different groups but this has not resulted in violence as in the Amazon. Two groups, the Herero and Tswana, have slowly spread into the area. These groups bring with them cattle herding. Their cattle and goats contaminate the water holes with their droppings, new diseases spread and the cattle strip the area of its vegetation. All of this results in further encroaching into ¡Kung territory. When the ¡Kung can no longer live off of the land in some places, since the cattle have depleted its resources, some have resorted to working as farmhands for little pay. Once they start settling, they begin to lose their knowledge of the land and soon can no longer return to their nomadic lifestyle.

Conclusion

Diamond argues that the hunter-gatherer lifestyle is an archaic lifestyle that is doomed to disappear as sedentary agricultural societies displaces it due to the latter's large population density, technological advancement, and disease resistance. He argues that this way of life still exists only in isolated pockets of the world were other forms of society has yet to penetrate. He argues that if other societies find a reason to expand into these regions, than the hunter-gatherers would have to adapt to new ways of life to survive or be wiped out. Many hunter-gatherer groups on the other hand, believe that it is the western world that is doomed. They believe that they are destroying the world they live in and are bringing the hunter-gatherers with them.

It is true that any agrarian country can easily destroy the way of life of any huntergatherer group in the world. Indeed it has happened and is happening everyday. In the past, the world would not try to defend these people, but luckily times have changed. Now the members of the more "advanced" societies are attempting to preserve the few remaining hunter-gatherer societies out of respect to their knowledge and love of the land. The environmental movement has played a crucial role in bringing a voice to hunter-gatherers and letting it known that western ways are unsustainable in a rain forest or desert. They have linked the preservation of these peoples with the preservation of their habitats. This has been difficult of course. Many of the existing hunter-gatherer societies are located in third world countries, and their land is sometimes sitting on rich natural resources. The cash-strapped governments are eager to tap into these resources,

such as in the case in "Savages." The movement to protect these lands have been very difficult due to the powerful interests involved.

Diamond's argument seems to also say that perhaps those hunter-gatherer societies that remain hunter-gatherer just have not have the opportunity to change their way of life. In "The Forest People", the Pygmies of Africa are able to live in both worlds. They live in the forest as hunter-gatherers and though they sometimes work for the Bantu on farms for a short period of time. They know how both worlds work and prefer their traditional way of life, although some Pygmies do permanently settle. These Pygmies that reject the traditional ways are not just looked down upon by other Pygmies, they weaken, sicken, life loses its meaning, and they do not farm very successfully, losing the respect of their Bantu neighbors as well. The Pygmies consider the forest a great spiritual place, they consider "civilization" as a dirty and evil place. After spending some time with the Bantu, the Pygmies bathe themselves to cleanse themselves of the dirt of the Bantu lifestyle so that they may return to the beautiful and sustaining forest in the proper fashion.

In the "Tales of a Shaman's Apprentice", the author's interest in shamanistic culture has stirred a renaissance in native culture. When the author first started his mission to document shamanistic medicine, very few shamans were left. These shamans were close to the end of their lives and most have not taken up apprentices to carry on their knowledge. As the author said, "Every time a shaman dies, it is as if a library is burned down." Many shamans were reluctant to teach him their ways. A reason for this is first because he is an outsider. Another reason is because many lived in super-villages where missionaries performed their work. These missionaries have convinced the natives

that the traditional ways were inferior, evil, and wrong. The author had to use his interpersonal skills to convince the shamans to trust him with their incredible knowledge and still they tested him and held things back. Over time he gained their trust and convinced them he had good intentions. Finally the word spread about the author's quest to document shamanistic medicine in the Amazon. Many other tribes have now invited him to help to document their medicine as well. Young tribe members have now begun to express a genuine interest to learn the traditional ways of the shaman. These actions have solidified their way of life in this modern world, and given them an unexpected trade good as well as respect.

The modern world has much to gain by learning from hunter-gatherers in the fields of medicine, farming techniques, and sustainable use of land. They may be "obsolete" societies in terms of material wealth but they also possess ancient wisdom and are providing vital knowledge for the modern world today. They are a priceless legacy to be preserved in living form if at all possible.

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