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An Investigation of Two Contemporary Influences on Ecuadorian Native Culture and Environment

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AN INVESTIGATION OF TWO CONTEMPORARY INFLUENCES ON ECUADORIAN NATIVE CULTURE
AND ENVIRONMENT

By

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ABSTRACT

The condition of native culture and the natural environment in Ecuador today were investigated through library research, firsthand observation, and in-country interviews conducted in the context of a study abroad experience. Twenty individuals including native Ecuadorians, missionaries working with indigenous tribes, field station representatives, and an oil company employee were interviewed and their responses recorded. It was found that the presence of foreign and national oil companies and Christian missionaries in Ecuador had a noticeable impact on both the native culture and natural environment of Ecuador. The native culture of Ecuador is in a state of transition between traditional and modern lifestyles. While the native people recognize this upheaval, they unexpectedly do not appear to be making an effort to preserve their traditional ways. The natural environment of Ecuador has sustained much damage during this cultural transition period and time of oil exploration, but efforts are now being made to restore and preserve this biologically rich area.

Keywords: Ecuador, oil exploration, missionaries, environment

INTRODUCTION

This project was undertaken to fulfill the requirements of the Honors Capstone Project at Olivet Nazarene University. The research was conducted in the context of a study abroad program in Ecuador. I examined the effects of outside influences, specifically oil companies and missionary activity, on the native culture and natural environment of Ecuador.

The country officially known as the Republic of Ecuador lies on the equator on the western coast of South America (See Map 1 in Appendix A). The terrain varies greatly from one border of the country to the other. The country is split by the great Andes Mountains running from north to south. To the west of these mountains are hot coastal lowlands and to the east is the humid rain forest (*CIA World Factbook, 2008*). Ecuador was part of the Incan Empire until the Spanish conquered it in the 16th century. A group of South American countries, comprised of what are now Colombia, Venezuela, and Ecuador, won their independence from Spain in the early 1800's and Ecuador became its own nation in 1830 (*CIA World Factbook, 2008*). Today the country covers 109,483 square miles and has a population of 13,548,000. This population is 65% Mestizo, 25% Amerindian, 7% White and 3% Black. Spanish is widely spoken as well as Quechua, a native language, and 95% of the people claim to be Roman Catholic (*CIA World Factbook, 2008*).

Ecuador is also an incredibly biologically rich area. The eastern region of the country is called the Oriente and covers around 50,000 square miles. This area sustains an estimated 8,000 – 12,000 different species of plants. That is up to five percent of all plant species on earth (Kane, 1996).

Researchers have recorded 150 different amphibians and an estimated 100,000 insect species as well as almost 500 different types of birds, making it one of the most biologically diverse places on Earth (Young, 2010). The Oriente region is also home to eight indigenous groups totaling 100,000 people (Jochnick & Garzon, 2001).

This project focuses on the recent history of Ecuador since the discovery of oil in the eastern region of the country. In 1967, a major petroleum reservoir was discovered in the province of Napo by Texaco Inc. (Stephens, 2007). In the early 1970's, Texaco proceeded to build a pipeline 312 miles long from the heart of the forest to the coast (Sorkin, 2007). The oil company also constructed a road running adjacent to this pipeline for transportation and access to oil sites. This road is commonly called the Via Auca, the "Road of Savages" (Eviatar, 2005). Texaco signed a 20 year contract with the national oil company, Petroecuador, and the government of Ecuador gave them a concession area for exploration and drilling of over five million acres (Fadiman, 2009). This marked the beginning of a major industry in Ecuador. In the next 20 years, Texaco built a network of roads throughout the region, many refineries, and hundreds of oil wells (Jochnick & Garzon, 2001). In 1985, the Ecuadorian government decided to give licenses to private oil companies to explore and drill on the many square miles of unsearched Amazon rainforest (Jochnick & Garzon, 2001).

The oil industry caused many changes in the rainforest and to tribes living in it. Oil brought a big boost for the country's economy and increased the government's involvement in public infrastructure (Sorkin, 2007).

However, it also caused many environmental problems. It is estimated that 18 billion gallons of oil and toxic waste have been dumped into the Oriente's lakes and streams (Eviatar, 2005). This has caused much sickness and death among the native peoples (Eviatar, 2005). The roads built into the jungle by the oil companies have brought thousands of colonists encouraged by the government to make the land useful for agriculture (Mendez, Parnell, & Wasserstrom, 1998).

Oil companies are not the only outside influence that has affected the indigenous tribes of Ecuador. The first contact with Europeans for the indigenous people of Ecuador came when the Spanish conquistadors came in and began to colonize the area. After that, many missionaries came through the region with varying levels of influence. The Jesuits arrived in the 1600s and won many converts among some tribes including the Cofan (Borman, 1996). Throughout the next few hundred years there were scattered attempts by the Roman Catholic Church to share the Word of God with the natives. The arrival of the twentieth century brought to America a burden for the unreached peoples of the world and to Ecuador an influx of missionaries (Borman, 1996). In 1953, the Summer Institute of Linguistics was founded in Ecuador, with permission from the Ecuadorian President to study and translate the languages of indigenous tribes (www.sil.org). In 1956, five men attempted to contact the Huaorani tribe. These men, Jim Elliot, Nate Saint, Pete Fleming, Roger Youderian, and Ed McCully were murdered by members of the tribe (Barnes, 2006). However, this initial contact opened

the door for Rachel Saint, the older sister of Nate Saint, to enter the tribe and establish a mission school among the Huaorani (Kane, 1996).

This missionary influence also caused major changes in the lives of indigenous peoples. The missionaries established elementary schools to teach the native children how to read and write and encouraged tribes to settle permanently in villages (Sorkin, 2007). They introduced modern technologies such as airplanes, radios, and tractors as well as medication and vaccinations (Borman, 1996). The missionaries also introduced the idea of capitalism and an economy based on money (Sorkin, 2007). This gradually changed the culture of many nomadic people groups. Some argue that although these innovations benefitted the tribes directly, it also made them dependent on the missionaries and detracted from their ability to care for themselves (Kane, 1996). Thus, the discovery of oil and the influx of western missionaries both appear to have had profound effects on Ecuadorian native culture.

Research Objectives

The first objective of this study was to investigate through preliminary literature research, firsthand observation, and direct interviews in the context of a study abroad experience, the effects of U.S. oil exploration and missionary activity on the native culture of Ecuador. I explored through extensive library research the historical contact American oil companies and missionaries have had with indigenous tribes in Ecuador and how this contact has affected the people culturally. Specifically, I researched how this contact

affected their health, beliefs, economic status, and education system. I then explored these same topics in Ecuador through observation and by conducting interviews with natives and asking targeted questions.

The second objective of this project was to explore the effects U.S. oil exploration and/or Christian missionary activity have had on the natural environment of Ecuador. This research was carried out in the same way as the first objective: preliminary library research, followed by firsthand observations, and interviews conducted in Ecuador.

METHODS

The data collection for this honors project had three main components: library research, firsthand observation, and interviews. Preliminary library research was conducted from December 2009 through May 2010 at Olivet Nazarene University. Following this, a literature review was prepared. During this same time period, permission was sought and granted from the Institutional Review Board of Olivet Nazarene University to administer an oral survey to willing participants.

The observation and interviews were completed as part of a study abroad experience in Ecuador from May 20, 2010 through July 18, 2010. The organization responsible for the in-country program is called the Nazarene International Language Institute (NILI) and is based in Quito, Ecuador. There were 12 students from the United States who participated in the summer program with the goal of learning Spanish and experiencing Latin American culture. We resided in the dormitories of El Seminario Teologico Nazareno

Sudamericano. I lived with an Ecuadorian seminary student who spoke only Spanish. For six weeks of my stay, I attended Spanish class for three hours four mornings a week. One day a week we went on an excursion as a group to different areas of Quito. During the weekends, we often took trips outside of Quito and experienced different aspects of Ecuadorian culture. The remaining two weeks of our stay were spent on longer travel experiences.

The in-country research for this project was carried out in three primary locations: Quito, Otavalo, and the Oriente. There are three main geographic regions of Ecuador: the Costa, la Sierra, and the Oriente. Map 2 in Appendix A shows these regions and the relative locations of Quito, Otavalo, and the Oriente.

The majority of my time in Ecuador was spent in the capital city of Quito. Much of this city is modern, but observations were made of the native culture and indigenous people still common in Quito today. Thirteen interviews were conducted throughout the city. The participants were willing adults who met the selection criteria; that is, they were in one of three categories: native residents of Ecuador, missionaries that have worked with indigenous cultures, or representatives associated with the oil industry in Ecuador. Twelve of the 13 participants were natives of Ecuador. Three were from Quito, four from Otavalo, two from the city of Rio Bamba, two from the western coast of Ecuador, and one from a village in the east called Kayumbi. Of these 12 native participants, 10 were female and two were male. These interviewees were selected by availability and willingness to participate. The participants were asked to answer seven main questions (See survey

included in Appendix B). The answers were hand recorded by the interviewer. All surveys were conducted in Spanish.

The other participant from Quito was associated with the oil industry in Ecuador. The participant was contacted through a local church and the interview was conducted in the house of the participant. There was a separate set of survey questions for participants in this category. The interview included the six questions listed in Appendix B. Table 1 shows the demographics of those participants interviewed in Quito.

Table 1: Participants Interviewed in Quito

Category of interviewee	City of Origin	Gender
Native	Quito	F
Native	Quito	M
Native	Quito	F
Native	Otavalo	F
Native	Otavalo	F
Native	Otavalo	F
Native	Otavalo	F
Native	Riobamba	F
Native	Riobamba	F
Native	The Costa	F
Native	Guayaquil	M
Native	Kayumbi	F
Oil Company	Quito	F

From June 18 to June 20 our group of 12 American students and five leaders stayed in the market town of Otavalo in northeast Ecuador. We stayed in a hostel near the center of town. I made observations of the

indigenous people that live there. I also conversed with them while shopping at an open air market where the native people sell their handmade wares and attended an indigenous church outside the city. No formal interviews were conducted, but pictures were taken and extensive observations made.

From May 28 to June 5, I traveled with my student group to the region along the eastern border of Ecuador known as the Oriente or Las Amazonas. It contains the Ecuadorian section of the Amazon rainforest. It is also home to many indigenous groups which still live in a traditional manner. We stayed in the town of Palora on the outskirts of the rainforest for four days and then moved several miles north to the town of Shell for three days. During this time we visited nearby indigenous villages. Two of the villages were Shuar villages and one was a Wuaorani village. Photographs were taken of these villages and observations made of the daily life, economy, education systems, and beliefs of the indigenous people. Three interviews were conducted, one at the Shuar and two at the Wuaorani villages (Table 2). Of these three participants, two were male and one was female. The participants were selected because they were native residents of Ecuador and were willing to participate.

Table 2: Participants interviewed in the Oriente

Category of interviewee	Tribe of Origin	Gender
Native	Shuar	M
Native	Wuaorani	M
Native	Wuaorani	F

The final stage of data collection was completed after my return to the United States. More interviews were conducted via email. I emailed three oil companies, eight field stations, and six missionaries. See Appendix B for complete lists of the questions asked in these emails. I received four responses to these emails, two from field station employees and two from missionaries (Table 3). The field station personnel represented Estaciones Maquipucuna and Tiputini respectively. The employee of Estación Maquipucuna was male and the employee of Estación Tiputini was female. The missionaries that responded were two couples, one serving with The Mission Society , and the other with Ecuador Missions, Inc.

Table 3: Participants interviewed through email

Category of interviewee	Organization	Gender
Field Station Employee	Estación Maquipucuna	M
Field Station Employee	Estación Tiputini	F
Missionary	The Mission Society	M&F
Missionary	Ecuador Missions, Inc.	M&F

RESULTS

Literature Review

There are differing opinions about the impact missionaries have had on the native culture of Ecuador. Some see the changes made as positive while others think that missionaries harmed the indigenous tribes by seducing

them with the trappings of the western world and changing their culture. All the sources found that address this issue do agree on the fact that American missionaries impacted native Ecuadorian culture in a substantial way. The specific areas where these changes occurred are the areas of religious beliefs, health, daily practices, and educational systems.

The area of native culture that missionaries aimed to change was their religious beliefs. The traditional beliefs of the indigenous peoples vary from tribe to tribe. Many tribes believed that the spirits of certain jungle animals and trees have power (Kane, 1996). Randy Borman was born to missionary parents and raised among the Cofan people in the western part of Ecuador. When he became an adult he continued to work with the Cofans, fighting for their political and geographical rights. As part of his work, Borman researched the history of missionary activity among the tribe and recorded his findings in his article *Survival in a Hostile World: Culture Change and Missionary Influence Among the Cofan People of Ecuador, 1954-1994*. As this project deals with how the native tribes were affected throughout history up through the present day, this source is valuable as a historical reference although it does not cover recent years.

Borman (1996) found that the Cofan people were first contacted by Jesuit missionaries in the early 1600's. Padre Rafael Ferrer had great success in redirecting the beliefs of the Cofan people, establishing a successful ministry and baptizing around 3,000 people of the estimated 15,000 to 20,000 total Cofan population (Borman, 1996). For the next few centuries after Padre Ferrer, the Cofans had sporadic contact with Christian

missionaries. For many years this contact consisted of a yearly visit from a priest to perform baptisms and marriages. In the 1950's, missionaries from the Summer Institute of Linguistics (SIL) came and set up a more permanent residence with the Cofan people (Borman, 1996). Borman's observations are especially useful because he spent the majority of his life with the Cofan people. He had time to fully immerse himself in the culture and see the impact outside influences made on it from the viewpoint of an insider. Borman's credibility is widely recognized and his work is cited in many other sources. He holds that these 20th century missionaries changed the Cofans' beliefs in many areas including concepts of medicine, religious thoughts, the value of land, and how to respond to the outside world.

In a 2006 article in *Christianity Today*, Rebecca Barnes describes the history of missionary activity among the Waodani (also called Huaorani) tribe. She notes the drastic shift in the religious beliefs of the tribe in the 20th century. In the early 1900s, there were no Christians among the tribe. They were known for their violent and hostile ways. Now there are more than 400 Christians, estimated to be 25 to 40% of the tribe's population (Barnes, 2006). This author cites the Gordon-Conwell Theological Seminary's World Christian Database which reports that 80% of the Waodani have heard the Christian message and 40% profess Christian faith. The dramatic conversion of the Waodani people has been the subject of many articles, books, and, recently, video presentations including the motion picture *End of the Spear* released in 2005. These sources confirm the great number of converts and show how missionaries did greatly affect the religious beliefs of this tribe.

Joe Kane is a reporter who spent a great deal of time in the jungle regions of Ecuador. His book, *Savages*, published in 1996, focuses on the Huaorani (Waodani) tribe and its dealings with oil companies. This book was widely distributed and brought the plight of the native tribes of Ecuador to the attention of the American public. His research inspired many other articles to be written and studies to be performed. He also addressed the impact missionaries had on the Huaorani culture. In his travels he found that a line of religious beliefs divides the tribe. He visited different Huaorani villages populated by professing Christians and others that held to the traditional views. He verifies that this change in beliefs greatly impacted the tribe. Not only did the missionaries build schools, bring medicine and introduce technology; they also encouraged a way of life different from the traditional Huaorani ways (Kane, 1996).

Mendez, Parnell, and Wasserstrom (1998) did an in-depth study of the legal interaction between native tribes in Ecuador and oil companies. Included in this research was information about the changes that came due to missionary activity. This article not only reports that U.S. Protestant missionaries converted large numbers of Quichua Indians, but also comments on how the changed beliefs affected their lifestyle. Conversions to Protestantism caused divisions in the tribe and in some cases a group of Protestants would move away from the Catholic members of the tribe. Their religious affiliations also determined which political organizations the people sided with (Mendez, Parnell, & Wasserstrom, 1998).

Other sources also confirm that the entrance of missionaries affected not only the beliefs of the native people but also their physical daily activities (Borman, 1996 & Sorkin, 2007). Because their beliefs changed, their actions changed as well. Borman (1996) notes that when the missionaries arrived with their airplanes and radios, the Cofan people started to integrate these western resources into their lifestyle. They found they could attain beads, cloth, and machetes much faster and more consistently from the missionaries with their planes than from traders. The missionaries also introduced cattle and taught the people how to grow crops more effectively. Their aim was to give the tribe an alternative to living off only the jungle and give them the skills they needed to survive in the modern world (Borman, 1996). Reporter Michael Sorkin visited the Oriente to observe the effect oil companies have had on the environment and native tribes. In his article published in 2007, he includes some of the history between native people and American missionaries. He lists some aspects of the daily practices of the indigenous people that were changed when missionaries came into their culture. These changes included the missionaries encouraging the natives to settle in more permanent villages, introducing capitalism and a money economy, and acquainting them with many items of the western world "from trousers and radios to beer and zinc roofs" (Sorkin, 2007, pg. 41). Kane (1996) shares his opinion that these western luxuries were influential in persuading the Huaorani tribe to accept the Christian teaching of the missionaries. He mentions airplanes, bullhorns, salt, white rice, aluminum pots, and candy as

amenities that helped to convince the natives to profess Christianity (Kane, 1996, pgs. 20, 85).

It has also been noted that the arrival of missionaries has affected the health of native tribes. In general, this happened in two ways: the missionaries brought doctors and modern medicine that helped the tribe to overcome previously uncured illnesses, but they also brought with them foreign diseases that caused many deaths among the native people. Borman's research showed a great decrease in the Cofan population in the 1920's when a measles epidemic wiped out many large villages. In the following decades malaria and tuberculosis wreaked havoc on the tribe, leaving only 300 to 350 Cofans alive (Borman, 1996). After this initial decrease, however, the benefits of Western medicine began to show and the population increased (Borman, 1996). Barnes also speaks about the missionaries' affect on the health of the Waodani tribe. She specifically focuses on dentistry. Steve Saint, the son of a missionary who was murdered by the Waodani tribe in 1956, started a dentist ministry to this same tribe. He teaches indigenous people the basic skills of dentistry so that they can in turn teach others and share their religious beliefs with them as well (Barnes, 2006). These sources confirm that missionaries have had an effect on the health of native tribes both positively through modern medicine, including physicians, and negatively through introducing new diseases.

A final way that U.S. missionaries affected the native culture of Ecuadorian tribes was through establishing systems of education. Borman (1996) comments on the efforts of missionaries to start schools in which

children could learn to read and write Spanish: "The attempts of the priests to force the children into the schools were resisted; nonetheless, quite a number of individuals learned to speak passable Spanish and read and write during this time" (pg. 186). This effort was early in the 1900s and had to be abandoned due to illness, but the Summer Institute of Linguistics tried again in the 1960s with some success (Borman, 1996). The missionaries aimed to teach the indigenous people Spanish, but also to preserve the native language of the tribe by teaching the people to read and write their native tongue. Barnes (2006) quotes mission strategist Ralph D. Winter saying, "If it were not for missionaries, literally thousands of indigenous languages would have perished" (pg. 40). Sorkin (2007) also notes that the missionaries established schools with the Bible at the center of the curriculum (pg. 41). Kane (1996) also mentions the ministry of Rachel Saint. She arrived in Ecuador in 1955 and established an elementary school in the midst of the Huaorani tribe. Because of this education system and similar ones that followed, the Huaorani people learned how to speak Spanish, trade using modern currency, and live in a way that honors God (Kane, 1996).

The second area that this project investigates with regards to missionary and oil company activity in Ecuador is how it has affected the environment. It may wrongly be assumed that oil companies are the only outside entities that affect the environment in Ecuador. However, research shows that missionaries also affected certain aspects of the environment as they entered with the goal of evangelizing the indigenous tribes. Sorkin (2007) reports that missionaries encouraged forest clearing to create larger

fields for agricultural purposes. Kane (1996) comments on another aspect of the environment that was changed: wildlife. When Rachel Saint came to the Huaorani tribe, their religious beliefs dictated that some of the animals of the jungle were sacred and not to be killed for food. Saint taught the Christian view that animals do not have any type of spiritual power so all types are eligible for hunting. This resulted in a great decrease of wildlife in the areas where villages were established (Kane, 1996, pg. 88).

In addition to missionaries, this project also addresses the effect oil companies have had on the native culture and natural environment of Ecuador. The oil companies affected the native culture in many of the same areas that the missionary activity did including their health, daily practices, economic status, and educational systems.

One of the most controversial and publicized issues when in reference to oil companies in Ecuador is the issue of the health of the people living in the areas of oil exploration. Multiple sources agree that the environmental effects of oil exploration have been detrimental to the health of the indigenous people. As it was with the medical missionaries, however, the oil companies did bring with them more modern medicine and the road system allowed for easier access to medical care. In this way, the oil industry did have some positive effects on the health of the native people.

An article in *The Nation* titled "The High Cost of Oil" emphasizes the health problems that are common in the areas around oil pits. It describes the specific example of one family who lives near a city called Shushufindi close to an oil pit. The author reports that this family is constantly fighting

against sickness, the children have continual stomach aches and an older member of the family recently died of liver cancer. This family has no doubt that it is the oil that has caused these afflictions (Eviatar, 2005, pg. 28). *The Ecologist* published an article in 2003, concerning the construction of a 314 mile pipeline that runs across most of the country. The report states that since the building of this pipeline, "the Afro-Ecuadorians of the coastal Esmeraldas region are experiencing high rates of cancer, plus respiratory, skin and stomach illness due to ongoing air, water and land contamination" ("Pipeline to Disaster," 2003, pg. 46). David Ransom addresses the problems caused by this same pipeline in his *New Internationalist* article. He adds the sobering fact that the pollution and destruction has completely wiped out at least two indigenous tribes: the Tetetes and the Sansahuari (Ransom, 2008). He also reports that the area around Shushufindi which has a big concentration of oil pits and refineries has the highest rate of tuberculosis in the country and that according to a survey conducted in 2003, everyone living near Petroecuador Oil Company installations suffered from some form of poisoning (Ransom, 2008). This information is confirmed by Jochnick & Garzon (2001) who say that the development by Texaco in particular has caused widespread disease, a significant decrease in populations of the Cofan, Secoya, and Huaorani tribes, and a variety of health problems including an increase in cancer rates.

The previously discussed article by Mendez, Parnell, & Wasserstrom (1998) highlights the positive effects of the arrival of oil companies on the health of native tribes, reporting how the oil companies built clinics for and

gave medicine to the tribes on whose land they were drilling (Mendez, Parnell, & Wasserstrom, 1998, pg. 14). This introduction of western medicine raises another issue. This is the issue of the natives' dependence on outside sources and the gradual movement away from the traditional herbal medicine. Academic and writer Maria Fadiman took a trip to the Amazon region of Ecuador and observed contradictions in the culture and environment. She believes that offering the indigenous tribes an alternative to their traditional medicines is counterproductive. This moves them away from being able to cure themselves and they become dependent on the western medical system that is inconsistent and hard to access (Fadiman, 2009).

The rapid influx of oil companies in the area inhabited by indigenous tribes also caused many changes in the day to day activities of the native people. One major change was the increased number of people in formerly sparsely populated areas. Because of the road system constructed by the oil companies, this previously isolated part of the country became much more easily accessible for other settlers. In 1964, the government of Ecuador passed the Agrarian Reform and Colonization Law to encourage people to move into the rainforest region and use the land for agriculture. When oil was discovered many more settlers moved into the Oriente as workers for the oil companies (Mendez, Parnell, & Wasserstrom, 1998). Sorkin (2007) estimates that well over a quarter million people have settled in the Oriente since the discovery of oil. This rise in population brought social problems such as violence, alcohol abuse, and prostitution into the small rural villages

("Pipeline to Disaster", 2003). Eviatar (2005) describes her firsthand observations of the main road that was built in the early 1970s and cuts through the Amazon: "Now spaghetti-like rows of exposed rusty pipelines snake along the road and across the doorsteps of the shacks of colonos, as the settlers who work for the oil companies are called. Drilling stations, gas flares, military camps and strip clubs line the oil-slicked blacktop, which is crowded with Caterpillar tractors, Halliburton trucks and diesel-spewing Petrolera buses which shuttle oil workers from Coca and back," (pg. 29).

The oil companies did make efforts to benefit the tribes as they moved in to explore on their territory. In many cases, the oil companies offered the natives certain amenities in order to gain their permission to drill on their land. In 1996, Occidental Petroleum and the leaders of the small Secoya tribe signed an agreement which outline how Occidental could have access to Secoya lands in exchange for solar panels, water pumps, and medical kits (Jochnick & Garzon, 2001). Similarly, the strategy of Arco International Oil and Gas company was to contact a tribe whose land they wanted to use and ask them what they wanted. Whether they asked the company to hire some locals, fix the airstrip, build a clinic, or give them specific supplies, Arco would comply with their requests and move into their territory. In the village of Moretecocha they negotiated an official community assistance agreement which required the oil company to provide the native people training in carpentry and sewing, medical services, one airplane flight per week, and a sum of money (Mendez, Parnell, & Wasserstrom, 1998). Sources agree that

the arrival of oil companies changed the way that native tribes lived from day to day and obtained basic supplies.

Many of these agreements between the oil companies and the leaders of the tribes included some sort of arrangement for education. This continued and refined the education systems established earlier by missionaries. Some oil companies built schools, sent supplies and provided teachers (Mendez, Parnell, & Wasserstrom, 1998). This continued to move the society toward literacy in Spanish and the ability to read and write their own native languages.

It would seem that as the native tribes received money and goods from the oil companies that their economic status would improve. The oil industry did bring in a lot of money for the country of Ecuador; however, the indigenous tribes did not benefit from these dollars. The native people had not lived with a money economy up until this point, so when the oil companies offered them monetary sums it caused a subtle shift in their culture. Suddenly they needed money to receive medical attention, get emergency assistance, and fight for their rights (Marks, 1999). Many natives began to work for the oil companies in order to get this money (Fadiman, 2009). This major industry did not improve the problem of poverty among the native people of Ecuador. Ransom (2008) states that "the oil industry has brought no particular benefits to the poor majority of Ecuador in the 35 years of its existence so far" (pg. 15). Eviatar (2005) reports that according to the World Bank, the poverty rate among the indigenous has gotten worse since the arrival of oil companies, reaching 87% in 2005 (pg. 28). Jochnick and

Garzon (2001) confirm that even with the large oil industry, in 2001 Ecuador had the highest debt of any Latin American country with an overall poverty rate of 67% and under-employment and job-lessness at 65% (pg. 42).

The arrival of oil companies also had a major effect on the natural environment of the Amazon region of Ecuador. There are many reports of the damage that has been done by oil exploration in the form of oil spills, pollution, and deforestation. The Wall Street Journal article *Amazon Swindle* reports that since 1990, there have been at least 800 recorded oil spills in Ecuador. That totals to more than three million gallons of oil (Stephens, 2007). Guy Marks, a writer for *Geographical* traveled to the Oriente and observed one such pit. He records "I saw a vast pit of waste oil, open to the environment and seeping into the forest and the waterways" (Marks, 1999). Ransom (2008) deals specifically with the activities of Texaco and reports that in the 20 years that Texaco was in Ecuador, 16.8 million gallons of crude oil was spilled from the main pipeline throughout the jungle.

These oil spills along with the waste products from the exploration process have caused a lot of pollution. Sorkin (2007) states that not only did the oil companies dump millions of gallons of oil in the rainforest, they also dumped billions of gallons of toxic wastewater. Ransom (2008) reports on statistics from Texaco that they dumped more than 19 billion gallons of toxic wastewater in their 20 year stay in Ecuador. He also comments on the pollutants that result from the machinery used in oil exploration. The waste gases cause acid rain to fall and pollute the rivers (Ransom, 2008). It was also discovered that in order to save costs, Texaco dumped an estimated four

million gallons per day of waste material directly into the environment (Jochnick & Garzon, 2001). *The Ecologist* article "Pipeline to Disaster" verifies that the heavy machinery used can cause landslides. This allows the oil to flow directly into rivers which the native people use for drinking water ("Pipeline to Disaster," 2003).

Finally, the increase in oil exploration caused a great decrease in wildlife populations and widespread deforestation. An article in *The Economist* entitled "Trees or Oil" reveals that the rainforest in Ecuador is shrinking at a rate of 1.67% a year, faster than in neighboring countries ("Trees or Oil," 2009). Thousands of square miles of the Amazon have been destroyed since the start of oil exploration (Sorkin, 2007). Many animal species are being threatened by this pollution as well. Occidental Petroleum explored and drilled for oil in an area that is home to jaguars, ocelots, nine monkey species, over 500 species of birds, and the endangered pink Amazon River dolphin ("Pipeline to Disaster," 2003). The high levels of salt in the wastewater attract wildlife but this water is poisonous and many animals die (Ransom, 2008). Many sources corroborate that the process of oil exploration has caused many changes in the natural environment of Ecuador.

In reviewing the published research that deals with the effects oil exploration and U.S. missionary activity have had on the native culture and natural environment of Ecuador, I have found that sources agree on the fact that both the culture and environment have been negatively affected in a drastic way due to influences. Missionaries affected the beliefs of native culture by converting many people to Christianity. They also affected the

health and the daily practices of the tribes by introducing western medicine and other modern amenities. Finally, they affected the educational systems of the tribes by establishing schools and teaching the natives to read and write. U.S. missionaries also affected the environment by clearing forested areas and removing taboos on certain animals. Soon after the missionaries arrived, oil companies entered the area inhabited by indigenous tribes and also caused some big changes. They continued to bring western medicine and supplies, changing the health, daily practices, and economic status of the tribes. They built more schools refining the education systems of the natives. The environment underwent negative changes as well due to the oil spills, pollution and deforestation caused by oil exploration.

In-Country Investigation—Observations

The second stage of this project included participating in a study abroad experience in Ecuador. From May 20, 2010 through July 18, 2010, I lived in Quito, taking classes in Spanish and religion, boarding with native students in the dormitories of a seminary, and observing the country and its culture. The study abroad program included short trips to different regions of Ecuador. We visited the rainforest region of the east known as the Oriente and the northern market city of Otavalo, but spent most of our time in the capital city of Quito (See maps in Appendix A). Each region had unique features and cultural aspects. This section is a summary of the observations made during this time regarding the daily life, economy, education system,

and beliefs of the Ecuadorian people which provides a baseline for later comparison and reflection.

The region along the eastern border of Ecuador is known as The Oriente or Las Amazonas. It contains the Ecuadorian section of the Amazon rainforest. It is also home to many indigenous groups which still live in a traditional manner. We had the opportunity to stay in two cities in this region and from these home-bases to visit three tribal villages in the rainforest.

Palora and Shell are small communities on the border between the mountains and the Amazon rainforest. We lived among the people of Palora for four days and the people of Shell for three days. These cities were similar in size and culture. Palora has an estimated population of 7,070 people and Shell has an estimated population of 8,300 people ("Palora: un paraíso escondido", 2008; Guay, 2010). The economy there was largely based on agriculture. On the outskirts of Palora there were miles of tea fields. Growing, consuming, and selling tea is an important aspect of their economy. There were also multiple small businesses on the main streets including restaurants, grocery stores, hotels, laundromats, and clothing and shoe stores. Overall, these cities seemed very poor. The buildings were made of cheap materials and many were not clean or well-kept. The majority of families lived in very small houses and I saw many people wearing clothes that were visibly worn. It was a common sight to see vehicles piled with people well over capacity.

The education system of these communities was comparable with our system in the United States. The children went to school in the town every

day through their teenage years. The children grow up speaking Spanish and then take English classes in secondary school. In order to further their education at the university level, students have to move to a bigger city in Ecuador.

Daily life in Palora or Shell is not so far removed from that of larger cities or even towns in the United States. The adults work at their jobs during the day while the children are in school. A lot of emphasis was placed on the family as is typical in Latin America. There was a community center building in the town with facilities for playing sports and room for gatherings. In the evenings, many people sat outside or stood on the street, socializing and smoking, while their children ran around and played games with the other children. In Shell, there was a park area in the center of town with a playground area for children and a fountain where teenagers congregated at night. There were churches, bars, and a fire station with emergency fire trucks.

Our group worked in conjunction with a protestant church in the Nazarene denomination. We attended a church service there and volunteered throughout the week, putting on a program for children in the community and working on the church building. The church had approximately 15-20 regular attendees and six to seven youths came each week to the youth ministry. To make the people aware of our children's program, a few people in our group walked throughout the town and gave people information about the location and time. Most of the people that we talked to had heard of the Nazarene church, but had never attended a service there. Close to 30

children ended up coming to our program. Unfortunately, these are the only observations I was able to make about the beliefs of these people.

From Palora and Shell we were able to take day trips to visit indigenous villages in the rainforest. Two of these villages were home to the Shuar people. The economy in these villages was very different from that of the more urbanized communities of Shell and Palora. There were no businesses such as hotels or restaurants. Agriculture in these villages is important for providing food for the people rather than as a source of income. The clothes that the people wore in the villages were in poorer condition than those of the towns. The buildings were made out of more primitive materials and were not well kept. Also, I saw very few vehicles; the roads were unpaved and the villagers walked from place to place.

The group of students that I was traveling with arrived at one of the villages during the school day so we had the opportunity to see the school building and observe the students in class. Students that appeared to be from ages 5-12 worked together in a building with two classrooms. There were approximately 35 students and two teachers. Later, a group of approximately 12 younger, pre-school age children joined us from a different building. The classrooms had desks, a chalkboard, posters hung on the walls, and some educational tools such as a globe and markers. Outside the building was a large playground area with swings, slides, a court for basketball and volleyball, and an outhouse building.

Daily life in the Shuar villages is more primitive and traditional than that in the communities on the outskirts of the rainforest. The women wash

their clothes in the river and many of the buildings do not have electricity. There is a big emphasis on community. Different families live in close proximity to one another and share all aspects of life. When I was there, we were greeted in the traditional manner. A few young men and women dressed in grass skirts and armed with long wooden spears danced and sang in the native Shuar way. They invited us to dance with them and offered us a traditional drink called chicha. Chicha is very important in native Ecuadorian culture. It is made by the old women of the community chewing a specific root, spitting it out, and letting it ferment in gourds. The Shuar tribe that we visited still preserves this tradition and offers their special drink to visitors. The native clothing and rituals, however, are no longer the norm in this Shuar society. Most of the villagers wore t-shirts, shorts or skirts, and sandals or rubber boots.

In the villages that we visited, many of the people had converted to Christianity. We shared Bible stories with the children and taught them songs about Jesus. In one of the villages we took turns singing with the native people. They sang a praise song in the Shuar language and then we sang one in Spanish. We conversed with the pastor of the Shuar church who is a leader in the community. These villages had Christian beliefs, but that is not necessarily true of all Shuar villages.

Our last stop in the Oriente was a small village out in the forest. We flew there in a small six person airplane. This is one home of the Wauorani people and was the most primitive and traditional place that we visited. The economy there is minimal. The people grow crops to eat and sometimes

make their own clothes. Some of the men work for outside companies, including oil companies, to earn money. Also, they make goods to sell in the cities and to visitors. They use materials from the jungle to make jewelry, carvings, bags, and weapons.

There is a school within the village which the children attend through high school age. They learn how to read and write Spanish and some were also learning English. If a student had a desire to continue their education at a university level, they would have to move to a much bigger city. The older adults never received formal education and many of them could not speak Spanish. An interpreter was required to translate from the Wuaorani language in order to converse with these elders.

The daily life of the Wuaorani people is similar to that of the Shuar tribe. They rarely have visitors from outside of the jungle. Long blow guns are still used to kill birds and small animals for food. Some men and women were dressed in traditional animal skins and jewelry. They performed a dance and Wuaorani chant. It is a tight-knit community with a focus on the family as in other tribes.

This Wuaorani village had also converted to Christianity. The elder named Dewy remembered when the first white missionaries had come to their village. He had actually been a part of a group who had speared five American missionaries in 1956. Since then, he became a Christian and the first thing he did when we got there was lay his hands on the pilot of our plane and pray for him in the Wuaorani language. There was a large church in the center of the village and we participated in a time of praise and

worship. Some people sang in Spanish, some in English, and some in Wuaorani. Most of the children and younger adults do not remember holding any other beliefs besides those of Christianity.

In the mountainous northeast region of Ecuador lies the market town of Otavalo. This is a larger city than Palora or Shell with a population of 44,500 people (Brinkhoff, 2010). I visited this town and observed another subculture of Ecuador. The economy of this city is largely based on an extensive open air market that opens on weekends. In the center of town, hundreds of booths are set up and the Otavalan Indians sell all types of handmade goods including clothing, blankets, jewelry, tapestries, carvings, instruments, and many other items. They rely on visiting foreigners as well as Ecuadorians to buy their wares for a profit. Besides the market, Otavalo also has many small businesses such as restaurants, hotels, and stores to accommodate the tourists.

I did not get a chance to observe the school system of Otavalo; however as it is a city of considerable size it may be assumed that there is a system of education within the community. All of the people I came in contact with spoke Spanish and many also spoke a few words in English.

Daily life in Otavalo is centered to a great extent around the market. During the week, the people work on making their items and preparing for the weekend sales. The clothing of the indigenous people in Otavalo is distinct from that of the people in the Oriente. The women of Otavalo wear long black skirts, white blouses and small cloth sandals. The men wear button up shirts, wide brimmed hats, and the same type of shoes. Small

children are carried around in cloth slings on the backs of their parents. Young children help their parents at the booths. There is a tight community within the market, each seller helping their neighbor.

We attended a Protestant church nearby the city of Otavalo. We followed along as the parishioners sang songs in their native language. This was a small church which represents a small percentage of the total population of Otavalan natives. There is a protestant influence in this region of the country as well as a strong presence of Catholicism.

Aside from these trips, most of my time in Ecuador was spent in the capital city of Quito. This is a large metropolitan center with around 1.5 million people. There is modern technology, transportation, and education. Some sections of the city are thoroughly westernized, complete with current technology and international businesses. However, Quito has an interesting mixture of modern and traditional cultures. Some sections of the city are very poor and underdeveloped. It is not an unusual sight to see an indigenous woman with her long skirt, beaded jewelry, and a large bundle of fruit on her back walking down a busy street past sky scrapers, movie theaters, or huge malls. In the small neighborhoods away from the tourist center of the city there are many indigenous people selling handmade goods or homemade foods on the side of the streets. There are older natives that have continued to live according to the traditions in which they were raised while their city and its people have rapidly changed around them

In-Country Investigation—Surveys

A total of 20 separate responses to interview questions were recorded. Sixteen interviews were conducted personally during my time in Ecuador and four responses were received via email. This section is a summary of the interview responses and a discussion of the general trends within the categories of participants. A complete list of the interview questions and responses can be found in the Appendix B.

Of the 20 interviews, 15 of the participants were natives of Ecuador. While in Ecuador, I interacted with natives every day, so it was easiest to interview people in this category. The first two questions asked of native residents dealt with the effect of missionary activity on their culture. The Ecuadorians were first asked, "Do you remember when missionaries first came to your tribe?". Two people did not comment on this question. Four participants indicated that they had never experienced any missionary activity. Of these four responses, three of the people were from Otavalo and one was from Quito. One commented that she had heard of missionaries in the Oriente, but had never seen them in Otavalo. Five people responded that they do not remember when missionaries first came because they had been there for a very long time. In these cases, missionaries had come before the interviewees were born. Only three of the participants could point to a specific time when missionaries had come to their village or city. These participants were from the Costa, Riobamba, and Kayumbi respectively. The final participant was himself a missionary to the Shuar tribe in the Oriente.

The follow up to the first question was, "Did anything change in your tribe when the missionaries came?" Two individuals, again, did not comment. These were the same two participants that did not comment on the first question. Six participants indicated that they had not observed any changes. These were those participants who had never experienced missionary activity or who did not see any changes because the missionaries had come before they were born. The rest of the people asserted that the missionaries had affected their areas positively. They remembered that missionaries had brought food and medicine to the poor, especially the indigenous people. The missionaries also built churches and schools and supplied them with musical instruments and school supplies. Four responses showed that many people converted to Christianity through the evangelism of missionaries. Three people commented that it was helpful for the native people to interact with people from a different culture. They had observed that the natives' general opinion of white people changed when the missionaries came. Table 4 (see following page) summarizes the interview responses by participant.

Table 4: Responses to Questions 1&2

	City of Origin	Gender	Response to Question 1 (Remember when missionaries came?)	Response to Question 2 (Effects of missionaries)
1	Quito	F	No comment	No comment
2	Quito	M	Long ago, does not remember	Good effects: helped the poor
3	Quito	F	Never	No effects
4	Otavalo	F	Never	No effects
5	Otavalo	F	Never	No effects
6	Otavalo	F	Never	No effects
7	Otavalo	F	Before she was born	Helped economically, socially, culturally: churches, instruments, schools, medicine, interaction
8	Riobamba	F	When she was very young	Many converted, relationships and opinions of white people changed, helped indigenous in poverty
9	Riobamba	F	Yes, 10 years ago	No considerable change
10	The Costa	F	Long ago, does not remember	Many people converted, good effects: food, more marriages, medicine, school/supplies
11	Guayaquil	M	Long ago, does not remember	Many converted, brought food, communication, humanitarian aid
12	Kayumbi	F	When her father was 7years old.	Majority converted, good changes
13	Shuar village	M	Is a missionary	Built a church in their village: marriage/ baptism
14	Wuaorani village	M	No Comment	No comment
15	Wuaorani village	F	Long ago, does not remember	Does not remember

The responses to the first two questions seem to divide the native people into two groups. Either they have not had any contact with missionaries in their lifetime and so have observed no effects of their presence in Ecuador, or they view the changes brought by missionaries to be positive. This could be due to the religious affiliations of the participants. A majority of those who saw the changes as positive were Protestants themselves. Another factor is what region of the country the participants were from. The majority of participants from Quito and Otavalo had not observed missionary activity, whereas those from the Oriente, Riobamba, and the Costa had more experience with missionaries. None of the participants suggested that the effects of missionary activity had been detrimental.

The next set of survey questions dealt with the interaction between the participants and oil companies. As with the missionary questions, I first asked, "Do you remember when oil companies first came to your village or city?" Oil companies began to explore and drill in eastern Ecuador in the 1960s and 1970s, so many of the participants would have been alive at that time. The majority of the participants responded that there were no oil companies in their area or that they did not remember when they had come. Only three people said that they remembered when oil companies had first started to affect their home. Of those who did not remember, three commented that while their city was not affected, the oil companies were very involved in the east part of the country, the Oriente. However, of the

four participants that were from the Oriente, only one person remembered when they had come.

The next question was, "What changed when the oil companies came?" Although only three had answered in the previous question that they had been personally affected by the oil companies' arrival, more of the participants could comment about the changes that took place in their country due to the presence of oil companies. Six participants still indicated that they had seen no effects from oil companies. Of the three that had answered yes to the previous question, one spoke of positive effects in her community including economic resources, many jobs, schools, and computers. The other two had only negative comments. One mentioned that people got sick in his community and the other said the oil industry was bad for craftsmen and women. The other participants shared a variety of observations that they had made or heard about throughout the country. Common answers included that oil companies brought more jobs and helped the economy, but that these same companies had bad effects on the people living in the areas of exploration, spreading sickness, destroying plants, and polluting.

From these responses, it seems that those who had personal interaction with oil companies saw mostly negative effects, while those more disconnected from the oil activity saw more positive effects. None of the participants made any comments about native Ecuadorian culture being changed by oil companies. Table 5 (see following page) summarizes the responses to questions 3 and 4 of the survey.

Table 5: Responses to Questions 3&4

	City of Origin	Gender	Response to Question 3 (Remember when oil companies came?)	Response to Question 4 (Effects of oil companies)
1	Quito	F	No oil companies	More people, animals died, hard to find jobs
2	Quito	M	Not personally	Good: economy, work, money Bad: destroyed lives and environment
3	Quito	F	Not personally	No effects
4	Otavalo	F	Not personally	Good effects
5	Otavalo	F	Not in Otavalo (more in Oriente)	No effects
6	Otavalo	F	No oil companies (more in Oriente)	No effects
7	Otavalo	F	No	No effects
8	Riobamba	F	No oil companies (more in Oriente)	Many jobs, resources, money, stable economy
9	Riobamba	F	Yes	Not good for craftsmen, effects in environment
10	The Costa	F	Yes	Good: Economic resources, jobs, schools, computers Bad: Took land, plants and animals died
11	Guayaquil	M	No	Learned responsibility and how to manage resources
12	Kayumbi	F	No, long ago	Culture shock, but good changes
13	Shuar village	M	Yes, oil station 10 km from his home	Pollution, sickness in the area, pollution of natural resources
14	Wuaorani village	M	No oil companies	No effects
15	Wuaorani village	F	No oil companies	No effects

The goal of the next question was to gauge how much the traditional lifestyle of relying on the resources of the environment is still practiced in Ecuador today. I asked the participants whether there was anyone in their community who knows how to make medicine from plants. This question was not addressed in every interview and did not get many responses. Of the five people that did answer this question, two said that there was not a jungle in their city and that those traditional practices are more common in the Amazon region in the eastern part of the country. The three others that responded indicated there are still some people that make natural medicine, but these are the very old people and the majority of people now use modern medicine.

This question was not very helpful because of the small number of responses. It is, however, interesting to note that those who said only the very old people in their cities know the traditional ways did not seem concerned with that. Their responses showed that they view it as a normal progression of life rather than a loss of culture. Table 6 (see following page) is a summary of the comments of those who responded to the fifth question.

Table 6: Responses to Question 5

	City of Origin	Gender	Response to Question 5 (Still use natural medicine?)
6	Otavalo	F	More in Oriente
7	Otavalo	F	Yes, some still know but many forgot
10	The Costa	F	No, no jungle nearby
11	Guayaquil	M	Yes, the very old people
12	Kayumbi	F	Yes, more people use modern, but some still know

The last specific question I asked addressed the changes that the native people observed in the environment as a result of oil exploration. The specific question was "What changed in the jungle when the oil companies began exploring?" As with the previous questions about the effects of oil companies, many responded that they had not seen any effects. The three who had answered that they remembered when oil companies had first come to their area agree that their presence had affected the environment. They mentioned pollution of natural resources and death of many animals. Two other interviewees answered that it was destructive to the environment, killing plants and animals and destroying mountains. This again suggests that those who were not personally affected by oil exploration are not aware of the effects it is causing. Table 7 (see following page) summarizes the natives' responses to question 6.

Table 7: Responses to Question 6

	City of Origin	Gender	Response to Question 6 (Observed changes in the environment?)
1	Quito	F	Animals died
2	Quito	M	Destructive to the environment
3	Quito	F	No comment
4	Otavalo	F	No comment
5	Otavalo	F	No effects
6	Otavalo	F	No effects
7	Otavalo	F	No effects
8	Riobamba	F	Not personally, more in Oriente
9	Riobamba	F	Effected environment
10	The Costa	F	Many animals and plants died
11	Guayaquil	M	No comment
12	Kayumbi	F	No effects
13	Shuar village	M	Pollution, pollution of natural resources
14	Wuaorani village	M	No effects
15	Wuaorani village	F	No effects

Finally, the participants were asked if they had any other observations concerning these topics that they would like to share. Six people made additional comments. Two people commented on how it was hard for missionaries when they first came because some tribes, especially in the Oriente, rejected them. One participant from a jungle tribe shared that there are still older people who live in the traditional way in her village. Two others observed that there is more crime and less peace now, but not because of missionaries or oil companies, just because that is the way it is. These

comments were interesting but did not give any new information useful for this study.

The intent of this project was to also interview representatives involved in the oil industry during my time in Ecuador. Unfortunately, I was only able to interview one person who worked for an oil company. This was due to lack of availability. One interview was conducted, so I will briefly discuss the responses received, realizing that these responses should not be generalized to represent the opinions of all those involved in the oil industry. The interviewee was a native Ecuadorian who worked for the Changqing Petroleum Exploration Bureau, a company based in China. The first question asked what measures are being taken now by oil companies to preserve the culture of native tribes. The participant answered that there is a department in the company she works for called HSE which stands for Health, Security, and Environment. She knows that they are working towards minimizing effects on native culture, but she did not know any specifics. The next question was, "What is your opinion about the new policy involving other countries paying Ecuador to not develop?" The participant was not aware of these policies and so did not have a comment on this question.

Next, I asked what measures are being taken to preserve the natural environment of Ecuador. The participant again referenced the HSE department. She said that there are many laws and regulations when it comes to oil exploration in Ecuador and in the world. No company can explore for oil in an area where there are people living unless the government negotiates with the tribe. When asked what effect her company

has had on the native tribes and natural environment of Ecuador, the interviewee responded that the oil companies have caused a lot of pollution and contamination. This has led to the strict governmental regulations that are now in place. Finally, I asked her opinion about the lawsuits that tribal confederations have filed against oil companies. The participant's opinion was that these tribal confederations have a reason to file suits because it is their land and community. She thinks that the leader of a tribe or community should come to an agreement with the government before an oil exploration is done in a given area.

To supplement the information gained from interviews, I also reviewed written material produced by oil companies as well as company websites. The goal was to find published reports concerning any of the interview questions to add to my results. I reviewed an information pamphlet from the Changqing Petroleum Exploration Bureau as well as the websites of Empresa Pública Petroecuador, the biggest Ecuadorian oil company, and Petrobras, one of the main foreign companies involved in Ecuador, but based in Brazil. Each company had a specific section designated to information about the environment and society. In these sections, all three companies state that they are committed to preserving the environment and working in harmony with the communities in which they work. They assert that they highly value both the natural environment and native culture and will do all in their power to preserve both. Both websites give specific examples of programs and precautions that the companies have put in place. One such program is called "Biomaps" in which the company explores an area's biological

characteristics before drilling in order to preserve as much life as possible. These departments indicate that oil companies have acknowledged that there has been a problem in these areas in the past. They are aware of the dangers of oil exploration and are attempting to minimize the effects their company has on the environment and native people.

After returning from Ecuador, I determined that it would be useful to also get opinions from people who work at field stations in Ecuador. These individuals would offer an informed opinion about the environmental side of the issue. See Appendix B for a complete list of questions sent in the email. I received two responses to emails sent out to eight different field stations located in Ecuador. These responses were from Estaciones Maquipucuna and Tiputini. The Maquipucuna Reserve is located in the Chocó Andean Corridor in the Sierra region of the country, while Tiputini is located in the Oriente region.

The first two questions were, "How do you think oil exploration has affected the native culture of Ecuador?" and, "How do you think oil exploration has affected the natural environment of Ecuador?" Both responses indicated that oil companies have had great impact on the native tribes in the areas in which they work. The representative from Estacion Tiputini distinguished between oil exploration, which this person defined as the short process of surveying an area for oil potential, and oil exploitation, the actual process of extracting oil from an area of land. The representative wrote that the companies offer the indigenous people a lot of great things and do not always realize their promises. When they do deliver the gifts, they

are incorporated and the lifestyle and values of the culture quickly change. The second response indicated that oil exploration has had a negative effect in all aspects of each ethnic group and their lifestyles. Similarly, when asked how the oil industry has impacted the environment, both parties responded that it has had a large negative effect and has been very destructive to the Ecuadorian rainforest.

Next I asked the same two questions, but in reference to missionary activity in Ecuador. Both responses agreed that missionaries have had a great impact on the native culture, especially by offering gifts which are incorporated and change their lifestyle. One response made no comment on whether these changes were positive or negative, while the other asserted that these effects are not positive. The response from Estacion Tiputini indicated that missionary activity has had an effect on the environment because as the natives' perspectives changed, they began to try to make money from the resources of their land and often over-harvest the resources of the jungle. The worker from Estacion Maquipucuna was of the opinion that there had not been negative effects; rather, the missionaries have made people conscious about the need to respect God's creation. The responses to these questions show that from the perspective of field stations, the oil exploration and missionary activity have substantively impacted the native culture and natural environment of Ecuador. Whether this impact was positive, negative, or neutral is a matter of perspective.

The next two questions asked, "What measures are being taken now to preserve the environment?" and, "What measures are being taken now to

preserve the native culture of Ecuador?" Both participants shared that there are many initiatives underway to prevent further damage to the oil rich rainforest. The representative from Estacion Tiputini said that these programs are sadly underfunded and so are not doing as much as they could be. She also observed that the indigenous people themselves do not value their own culture and so their culture changes rapidly. The worker from Estacion Maquipucuna directed me to their website which outlines their conservation efforts. Similarly, the representative from Maquipucuna shared that there are many programs in place to preserve culture, but did not mention any one in particular.

Finally, I asked in the email the field station workers' opinions about the lawsuits that tribal confederations have filed against oil companies. The response from the Tiputini representative communicated that the oil companies are trying to draw out the cases as long as possible to outlast the confederations. This is possible because it is hard to obtain convincing evidence to link the destructive effects to the oil companies' activities. The participant from Maquipucuna expressed the opinion that this is the right of the ethnic groups and of nature. This last question is solely a matter of opinion and the responses do not have relevance to the theme of this project.

Another aspect of the project involved interviewing missionaries to indigenous people during my time in Ecuador. As with the interviews with oil company representatives, interviewing this type of missionary was more difficult than anticipated. When I was in Ecuador and realized the conditions,

I adjusted the expectations of the project so that the focus was on the interviews with native people. I did, however, email six missionaries to indigenous people of Ecuador. I received one full response and another response to one of the nine questions presented in the email. See Appendix B for a complete list of questions included in the emails.

The first two questions asked, "When did you first start serving in Ecuador?" and, "What has been the overall response of the native people?" The full response related that the missionaries have been in Ecuador since January 2006, and have been welcomed among the Kichwa and Shuar people. I then asked, "Do you think it is important to preserve the native culture of the tribes?" and "How do you try to integrate Christianity along with native culture? These missionaries said that some of the traditional customs of the Ecuadorians pertain to witchcraft and so they do want to steer the people away from that.

In response to the question, "What is the overall goal of your ministry?" they said to win souls by founding and pasturing churches and then training up new pastors. When asked how they have observed oil companies affecting the native people, they responded that they have not seen evidence of oil companies affecting the natives in their area. I asked, "What aspects of American culture have you seen become more common?" and they answered that they have seen an increase in modern technology such as cell phones and the internet since arriving in Ecuador.

The last question asked, "What do you think about claims that native people nominally convert to Christianity in order to get the benefits offered

from missionary agencies?" They stated that they are aware of this possibility, but they guard against it by making sure the conversions are sincere and by not offering many material benefits. The other missionaries' response also indicated that their agency focuses on building relationships, not on bringing material goods.

DISCUSSION

After integrating the preliminary research literature with my personal observations in-country, along with the interviews conducted in Ecuador, I have identified some common themes and drawn conclusions about the state of the native culture and the environment of Ecuador.

The responses to the first two questions of the survey given to native Ecuadorians, "Do you remember when missionaries first came to your tribe?" and, "Did anything change in your tribe when the missionaries came?", seem to divide the native people into two groups. Either they have not had any contact with missionaries in their lifetime and so have observed no effects of their presence in Ecuador, or they view the changes brought by missionaries to be positive. This could be due to the religious affiliations of the participants. A majority of those who saw the changes as positive were Protestants themselves. Another factor is what region of the country the participants were from. The majority of participants from Quito and Otavalo had not observed missionary activity, whereas those from the Oriente, Riobamba, and the Costa had more experience with missionaries. None of

the participants suggested that the effects of missionary activity had been detrimental.

Also, none of the natives suggested that foreign missionaries forced their culture upon Ecuadorians. In my preliminary research, various authors were concerned that the arrival of missionaries resulted in a loss of native culture as the missionaries imposed their beliefs and practices on native tribes (Kane, 1996, pgs. 20, 85). This view was not supported by the responses of the natives themselves.

From the responses to Questions 3 and 4 of the natives' survey about the effects oil companies have had on native tribes, it seems that those who had personal interaction with oil companies saw mostly negative effects, while those more disconnected from the oil activity saw more positive effects. None of the participants made any comments about native Ecuadorian culture being changed by oil companies.

The fifth question concerning natural medicine was not very helpful because of the small number of responses. It is, however, interesting to note that those who said only the very old people in their cities know the traditional ways did not seem concerned with that. Their responses showed that they view it as a normal progression of life rather than a loss of culture.

General Trends

Some general trends were observed in the responses of native Ecuadorian interviewees. Those who commented on missionary activity were those who had experienced it firsthand. Of those who commented, all saw

the changes caused by the arrival of missionaries as positive. The majority of participants had not come in personal contact with the oil companies in Ecuador. These participants saw the positive affects the oil industry had on the country as a whole. However, those who did have personal contact focused more on the negative effects oil exploration has had on their people and environment. From responses to the question about living a traditional lifestyle, it seems that while some old people still live traditionally, young Ecuadorians no longer learn their ways.

Two main components of the state of native culture in Ecuador today are: 1) the mixture of modern and traditional values and practices and, 2) the loss of culture due to the influence of oil companies and missionaries. It is clear through all three modes of investigation that the culture in Ecuador today involves a unique mixture of the traditional lifestyle of the indigenous people and the westernized, modern culture. This interesting combination was evident in my preliminary research in the accounts of those who had been to Ecuador. Several of the authors described the stark contrast between the native lifestyle and the modern city life (Kane, 1996). I witnessed this combination firsthand during my time in Ecuador. I observed people in indigenous dress selling their wares on the busy streets of Quito next to skyscrapers. I also shopped at an electronics store in a small town in the rainforest. In the interviews, the responses of the native people to the question concerning natural medicine showed that some elder people still live traditionally while the younger generation is losing certain skills such as the ability to make natural medicine. Culture in Ecuador today is in a state of

transition. The traditional, indigenous lifestyle coexists with the westernized, modern way of life, forming a rich and unique blend.

The other recurring theme in my research was the idea that culture was lost due to oil companies and missionaries. Many authors voiced their concern that the gifts and services that oil companies offered in exchange for land pushed the jungle tribes too quickly into the western culture (Sorkin, 2007, pg. 41). I also read the opinions of those who think the technology and philosophy brought to indigenous tribes by missionaries caused the natives to lose their traditional ways that have been present for generations. Those interviewed who remembered the arrival of oil companies and missionaries affirmed that they did bring with them things and ideas that changed the culture. Finally, I saw firsthand this change in culture when I visited the Huaorani village and they told us the story of how they turned to Christianity. Whether for good or bad, oil companies and missionary activity did have a measurable impact on the native culture of Ecuador.

The attitude of the native people toward the state of native culture in Ecuador today was unexpected. Of all those interviewed, not one person expressed any concern or regret over the loss of traditional culture caused by outside influences. They viewed most of the changes brought about by oil companies and missionaries as positive. The only negative aspects that were mentioned were the physical effects caused by oil exploration. Multiple participants expressed that the exposure to a different culture was helpful for the Ecuadorian people because it allowed them to learn from others and interact with outsiders. The field station employees as well as the authors of

the preliminary articles expressed great concern about the preservation of culture. But these advocates seem to care more about the issue than the natives themselves. Those losing their culture do not place as high of a value on maintaining the traditional ways as do the outsiders trying to save it. This was affirmed by the response of a field station worker who had observed that the culture is changing so rapidly because the indigenous people do not value their own culture.

The state of the environment in Ecuador today is a product of tragedies in the past and efforts in the present. Mainly through preliminary research, I learned the astounding facts about the destruction of the environment due to the process of searching for and extracting oil from the tropical forest areas. I saw a very small part of this during my time in the Oriente. The interviews confirmed that many plants and animals died when the oil companies arrived. None of the natives' responses included a mention of missionaries having an effect on the environment. Undoubtedly, Ecuador's environment was adversely affected by outside influences in the past. However, in the present many efforts are underway to compensate for these offenses and preserve the environment ("Preserving the environment, 2009). As shown by the websites and literature of three major oil companies as well as the interview with one of their workers, there are today many regulations in place to prevent further damage ("Seguridad salud y ambiente, 2010).

One example of this new environmental regulation in recent news is an agreement between the Ecuadorian government and various other countries. President Rafael Correa asked other nations to pay Ecuador not to extract the

oil in Yasuni National Park (see Map 3 in Appendix A). This wonderland in the Oriente region of Ecuador is home to untold numbers of natural plant and animal species. It is estimated to contain more species of trees than are native to the United States and Canada combined. Some researchers have called it the most biodiverse place in the world (Young, 2010). Underneath this biological hotspot lies an estimated 846 million barrels of crude oil.

To prevent pollution, Correa promised not to extract this oil if other countries were willing to donate money to make up for the lost profit. Germany has recently agreed to pay a sum of \$50 million per year and other nations are expected to follow (Valencia, 2010). Various environmental organizations and universities with established field stations are also working toward preservation and restoration of the tropical rainforest, thus preserving the associated biodiversity. The natural environment of Ecuador was irrevocably damaged due to the oil industry; however, today, organizations from all around the world are working toward minimizing that damage and preventing further destruction.

The emails to the field station personnel were helpful to give a different perspective on the environmental issues of this project. Their views acted as an outside opinion as the representatives are not personally involved in or affected by missionary activity or oil exploration in Ecuador, but are still informed on the issues. However, their responses may still be biased because they are affiliated with field stations and so have a deep-felt concern for the environment. Also, since only two parties responded, the sample size is very small and it is unrealistic to generalize their opinions.

There are also other variables that influence the reliability of the field station data, such as where these stations are located, the personal experiences of the participants, and potentially different interpretations of the questions in email format compared to an oral survey.

Reflections

There were several difficulties that arose over the course of this project, and thus, areas that could be improved if the investigation were to be repeated. One difficulty was the limited amount of contact opportunities during time spent in the Amazon region of Ecuador. I was in the rainforest for only one week and during this time there were very few opportunities to conduct interviews. Questions about the environment would have been more applicable if more interviews had been conducted in the Oriente where oil exploration is taking place.

Also, I was not able to interview as many people involved in the oil industry as I had intended. While planning for the project before going to Ecuador, I was not aware of the little amount of free time or limited access to transportation I would have participating in the study abroad program. I prepared for interviews with oil company representatives, but to arrange for such turned out to be more difficult than anticipated.

Another difficulty that I faced during the interviews was the language barrier. All interviews that were conducted in Ecuador were done in Spanish. I am not a native speaker, so at times it was a challenge to completely understand the responses. This language barrier was especially evident in

the interviews with the indigenous people of the Oriente whose native tongue was not Spanish as well. The necessary mental translation made the note-taking process slow. It is possible that I misinterpreted the tone or implied meaning of some of the responses.

The responses to survey questions 3 and 4 in the native Ecuadorian survey (3. Do you remember what it was like when the oil companies first came to your tribe or area? 4. What changed when the oil companies came?) indicated that those who had personal interaction with oil companies saw mostly negative effects, while those more disconnected from the oil activity saw more positive effects. A better way to ask these two questions would have been to first ask the participants how they personally had been affected by the coming of oil companies and then follow up by asking how the oil companies had affected the country in general. Then I may have been able to show a more direct link between personal experience and perception of the effects as positive or negative.

The next question (#5) asked of natives was "Is there anyone who knows how to make medicine from the forest still living in your tribe?" It may have been beneficial to ask it in a different, more general way. It also would have been helpful to follow up this question by asking the participants how they feel about the decline of the traditional way of living. I could also have asked whether or not they think this decline has to do with missionaries or oil companies.

Also, if I were to repeat this project and if IRB approval would have allowed, I would tape record the interviews instead of only taking notes. It

would have been helpful when analyzing the responses to be able to listen to the interviews multiple times. This would also have helped with the language issue. If a participant said a word I did not understand I could have gone back and listened to it more slowly and looked up the definition.

CONCLUSION

I learned about the native culture and natural environment of Ecuador during this study abroad experience. Through preliminary library research, in-country observations, and personal interviews, I was able to draw my own conclusions about the Ecuador of today. Native Ecuadorians are moving away from the traditional indigenous way of life to a more modern and westernized mindset. The arrival of Christian missionaries and foreign oil companies sped up this process. Still in the midst of this transition, the culture of Ecuador today is a unique combination of lifestyles. While the native people recognize this trend, they surprisingly do not appear to have a strong desire to preserve their indigenous culture. The environment of Ecuador was greatly impacted by the presence of oil companies in the past. Today, efforts are being made to preserve the biodiversity that remains. It is essential that the preservation process is successful because Ecuador holds some of the richest biodiversity in the world and traditionally, that celebration of life has been guarded by the indigenous peoples living in their more primitive cultural ways.

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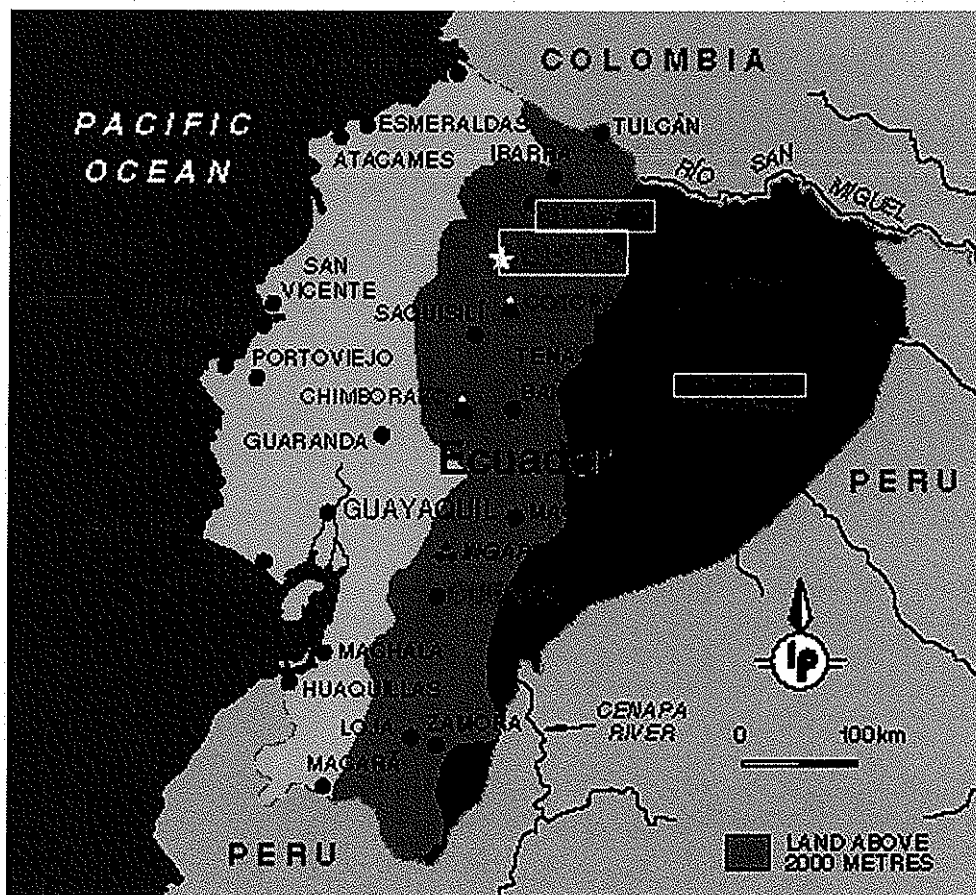
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APPENDIX A—Maps

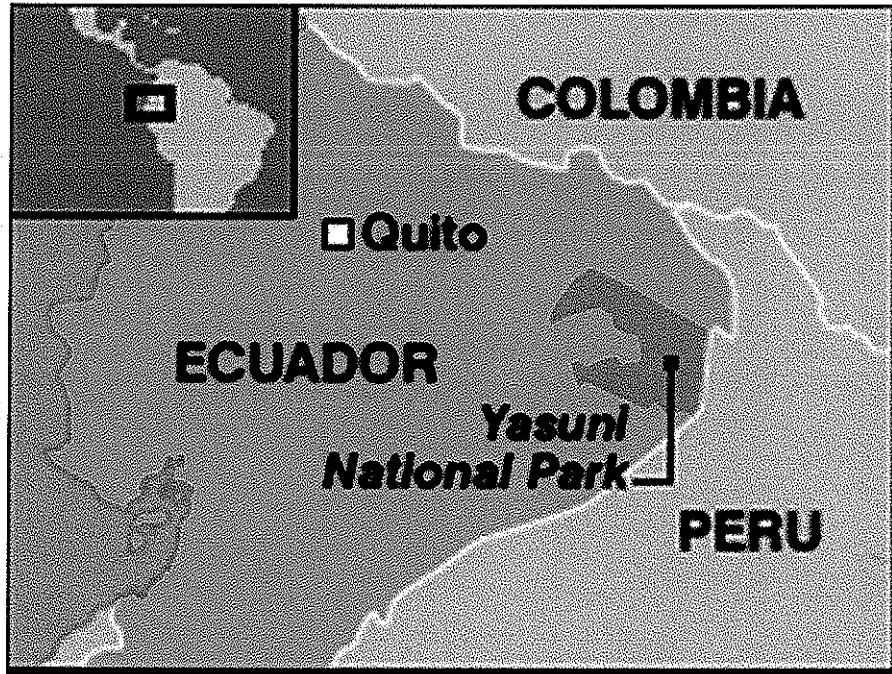
Map 1: Location of Ecuador in South America



Map 2: Map of Ecuador



Map 3: Location of Yasuni National Park



APPENDIX B—Survey Questions

Survey Questions Addressed to Native People

1. Do you remember when the missionaries first came to your tribe?
2. Did anything change in your tribe when the missionaries came?
3. Do you remember what it was like when the oil companies first came?
4. What changed when the oil companies came?
5. Is there anyone who knows how to make medicine from the forest still living in your tribe?
6. What changed in the jungle when the oil companies began exploring?
7. Are there any other observations concerning missionaries or oil companies you have made that you would like to contribute?

Survey Questions Addressed to Oil Company Employee

1. What measures are being taken now to preserve the culture of native tribes?
2. What is your opinion about the new policy involving other countries paying Ecuador to not develop?
3. What measures are being taken to preserve the environment?
4. What effect has your company had on the tribe/environment?
5. What is your opinion about the lawsuits that tribal confederations have filed against oil companies?
6. Are there any other observations you have made that you would like to contribute?

Survey Question Addressed to Missionaries

1. When did you first start serving in Ecuador?
2. What has been the overall response of the native people?
3. Do you think it is important to preserve the native culture of the tribes?
4. How do you try to integrate Christianity along with native culture?
5. What is your overall goal in your ministry?
6. Have you seen how the oil companies have affected the natives? How?
7. What aspects of American culture have you seen become more common?
8. What do you think about claims that native people nominally convert to Christianity in order to get the benefits offered from missionary agencies?
9. Are there any other observations or thoughts that you would like to share?

Survey Questions Addressed to Field Station Employees

1. How do you think oil exploration has affected the native culture of Ecuador?
2. How do you think oil exploration has affected the natural environment of Ecuador?
3. How do you think missionary activity has affected the native culture of Ecuador?
4. How do you think missionary activity has affected the natural environment of Ecuador?
5. What measures are being taken now to preserve the environment?
6. What measures are being taken now to preserve the native culture of Ecuador?

7. What is your opinion about the lawsuits that tribal confederations have filed against oil companies?