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The Importance of Nature: An Investigation on How Geography Influences Well-being

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The Importance of Nature: An Investigation on How Geography Influences Well-being

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Abstract

The objective of this community service project (CSP) was to study how a community's location, specifically within nature, influences their well-being. I hoped to see how the community's location, within Chapada Diamantina national park, influences the many ways health is promoted, and how these ways are affected by their location within nature. This project was built upon a review of the literature, which found that there is a theoretical basis for the notion that contact with nature is beneficial, a term deemed *Biophilia*. There is a robust body of academic research that highlights the health benefits deriving from contact with nature. Yet as climate change diminishes the conditions of the environment, preservation of the natural environment becomes exceedingly important in order for humanity to continue to enjoy the health benefits resulting from contact with nature. The study was conducted over four weeks at Lothlorien in Vale do Capão, in the interior of Bahia, Brazil. I participated in a work exchange at Lothlorien, which is a center based around principles of spirituality, personal growth, and respect towards nature. I had the opportunity to paint a mural at the center, as a way to give back to the community that hosted me for four weeks. Participant observation was conducted over a three-week period in Lothlorien, in order to gain a greater insight into how Lothlorien's principles influence well-being. In addition, I interviewed 10 individuals from the greater Vale do Capão community, 3 people born in Capão, and 8 others that moved to Capão within the past 30 years. In talking with people of varying professions and years spent in Capão, I was able to gain an understanding of the various ways in which people use aspects of nature to promote their well-being. The study found that the most common way the people of Capão use nature to promote their well-being is through gardening, as both a means of therapy and a source of nutrition. This study also shed light on the necessity of preserving our environment in order to preserve the wellness of the human population.

Key words: Environmental Health & Protection, Nutrition, Public Health, Health Education, Climate

Resumo

O objetivo deste projeto de serviço comunitário (CSP) foi estudar como a localização de uma comunidade, especificamente dentro da natureza, influencia o seu bem-estar. Eu esperava ver como a localização da comunidade, dentro do Parque Nacional Chapada Diamantina, influencia as muitas maneiras como a saúde é promovida e como essas maneiras são afetadas pela sua localização dentro da natureza. Este projeto foi construído a partir de uma revisão da literatura, que mostrou que há uma base teórica para a noção de que o contato com a natureza é benéfico, um termo considerado *Biophilia*. Há um corpo robusto de pesquisa acadêmica que destaca os benefícios para a saúde decorrentes do contato com a natureza. No entanto, como a mudança climática diminui as condições do ambiente, a preservação do ambiente natural torna-se extremamente importante para que a humanidade continue a desfrutar dos benefícios para a saúde resultantes do contato com a natureza. O estudo foi realizado durante quatro semanas em Lothlorien, Vale do Capão, no interior da Bahia. Eu participei de uma troca de trabalho em Lothlorien, que é um centro baseado em princípios de espiritualidade, crescimento pessoal e respeito à natureza. Tive a oportunidade de pintar um mural no centro, como forma de devolver à comunidade que me acolheu durante quatro semanas. A observação dos participantes foi realizada durante um período de três semanas em Lothlorien, a fim de obter uma maior compreensão de como os princípios de Lothlorien influenciam o bem-estar. Além disso, entrevistei 10 indivíduos da comunidade maior do Vale do Capão, 3 pessoas nascidas no Capão e 8 outras que se mudaram para o Capão nos últimos 30 anos. Ao

conversar com pessoas de diferentes profissões e anos passados no Capão, consegui compreender as várias maneiras pelas quais as pessoas usam aspectos da natureza para promover seu bem-estar. O estudo descobriu que a forma mais comum de uso da natureza por parte das pessoas de Capão para promover seu bem-estar é através da jardinagem, tanto como meio de terapia como fonte de nutrição. Este estudo também esclarece a necessidade de preservar nosso meio ambiente, a fim de preservar o bem-estar da população humana.

Palavras-chave: Saúde e Proteção Ambiental, Nutrição, Saúde Pública, Educação para a Saúde, Clima

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Introduction:

Health is a concept that everyone understands to be beneficial, but to challenge someone to define health past this surface level, most struggle to give a comprehensive definition. Historically, the definition of health at an individual level has thought to be the absence of sickness or disease. This definition is widely accepted at a policy and medical professional level, because it allows for a clear way to measure health, and draw comparisons between two people. Yet this definition has recently been debated, because it does not truly encompass every facet of an individual. The World Health Organization (WHO) has attempted to define what “health” means for an individual in the preamble of their constitution, which was first adopted at the International Health Conference in 1946 (Barr, 2008). This definition states: “Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (WHO, 1948). This definition ultimately creates an awareness of the many aspects of health and allows one to explore the three axes of health that the definition includes: physical health, mental health, and social well-being. While this definition gives little guidance on how to measure health, especially at a policy level, it is important because it allows for the promotion of health across all three axes. It expands the definition away from simply a physical assessment of the body, into a further understanding of how we can best promote each individual’s health.

The promotion of health varies on an individual level, but also on a community level. The location of a community is a crucial factor into each community member’s promotion of health, especially as it relates to nature. The natural environment has the ability to enhance health, such as the fact that many pharmaceuticals are derived from plants and animals, but also contact with nature has proven to be very beneficial for human health. A theoretical basis for the notion that contact with nature is beneficial comes from E.O. Wilson, who introduced the term *Biophilia*, defined as the innately emotional affiliation of human beings to other

living organisms (Institute of Medicine, 2001). There is ample evidence, from contact with plants and animals, and having wilderness experiences, that contributes to this affiliation and can be used to enhance our health (see literature review).

Problem Statement

In the last few hundred years, there has been an extraordinary disconnection of humans from the natural environment, which is mostly due to the massive shift of people away from rural areas into cities, and is especially the case with the rapid process of urbanization in Brazil. *Biophilia* describes the intrinsic need for contact with nature, thus this shift is ultimately affecting human health. Yet how dependent humans are on nature for psychological and well-being needs, and what exact benefits can be gained from interacting with nature are just beginning to be investigated. There is a need to investigate this connection, especially as climate change is negatively impacting the natural environment.

I explored the aforementioned connection while collaborating with Dr. Aureo Augusto, a doctor and naturalist who utilizes many naturist procedures in his practice, and with the community of Lothlorien, which is a center based around principles of spirituality, personal growth, and respect towards nature. Lothlorien is located in Chapada Diamantina, one of Brazil's national parks, which directly translates to "Diamond Plateau". Historically, Chapada Diamantina was heavily populated by diamond miners, working in the mines of the plateau. The natural environment was getting destroyed from these mines and eventually these mines were shut down and diamond mining was prohibited. Now, Chapada Diamantina is a national park attracting many tourists from around the world. This location provides an interesting starting off point for this project, as it was negatively impacted by human actions in the past, but is now being preserved for the promotion of well-being and appreciation for nature, through ecotourism.

Community Background

Lothlorien was founded in 1984, and is both an inn and a space to host events. The center involves an ovo-lacto-vegetarian diet, organic agriculture, and morning meditation (Lothlorien). The center allows people or companies to host events in their space, and also serves as a retreat center. Lothlorien is based upon principles of spirituality, personal growth, and respect towards nature, which is evident in the daily life of the community, and through the types of events held at the center. One of the 8 founders is a naturalist doctor, Aureo Augusto, who now works at the Caeté-açu health center (Unidade de Saúde da Família de Caeté-Açú). The founders originally came to Vale do Capão to simply live there; they did not initially have the idea of creating a community such as Lothlorien. It wasn't until they met someone from the Scottish Findhorn Foundation that they had the idea to create Lothlorien (S. Christophe, Personal communication, November 29, 2016). The Scottish Findhorn Foundation is a spiritual community, ecovillage and international center for holistic learning, and its founding principles are “deep inner listening, and acting from that source of wisdom, co-creation with the intelligence of nature, and service to the world” (About Us, 2016). The principles of Lothlorien are based upon these principles of the Findhorn Foundation. In fact, Lothlorien is not the only community in Brazil inspired by the Findhorn Foundation. Nazaré Universidade da Luz, located in the Atibaia region close to São Paulo, is also a spiritual community inspired by the Findhorn Foundation and was started in 1982, around the same time as Lothlorien (Quem somos, 2016). Nazaré Universidade da Luz also emphasizes meditation and mindfulness, an ovo-lacto-vegetarian diet (with most of the natural food coming from their garden), loving relationships, and social and environmental responsibility. However, Nazaré Universidade da Luz has a greater emphasis on structured community life as it has a “Retreat Living Group”, which is a program that allows for self-reflection during daily tasks and ultimately aims in assisting in the development of a new perspective on life,

and for reflection on one's relationship with the group (Quem somos, 2016). Nazaré Universidade da Luz also has courses that one can enroll in, such as a course in non-violent communication, another course in sustainable practices and a postgraduate course in transpersonal psychology (Quem somos, 2016). Lothlorien does not have individual courses such as these, but has workshops with various themes over a span of a couple days. Otherwise, there are courses at Lothlorien put on by Capão community members using Lothlorien's space (such as yoga or dance in the temple). Another community similar to Lothlorien, is Comunidade Campina, which is also located in the Vale do Capão region, about 2 hours walking from Lothlorien. Comunidade Campina was founded in 1991, when a group of people decided to live in a more integrated way with nature (Comunidade Campina, 2016). Today, the community emphasizes organic food production, herbal medicines and permaculture. In addition, the community has been working on reforestation and agroforestry projects in order to recover an area that had once been used as pastures and had experienced several fires (Comunidade Campina, 2016). Upon visiting this community by Aureo's recommendation for an interview, I was impressed by the strong sense of community present, in that everyone was working for the greater good of the community and the environment. Comunidade Campina shares many of the same principles as Lothlorien, such as respect for nature, spirituality and an ovo-lacto-vegetarian diet. Thus, it is interesting to note that there are two similarly based communities within the greater Vale do Capão region, yet not many communities such as these in greater Brazil.

Lothlorien is located within Vale do Capão--an incredibly beautiful valley that was crucial to my project. Vale do Capão is located within Chapada Diamantina and is one of the gateway cities into the national park. Chapada Diamantina is considered the giant region of plateaus, yet within this, there is a smaller part demarcated by the government that is labeled as a national park (where the environment is protected and preserved), and Vale do Capão is

at the borders of the national park (A. Augusto, Personal communication, December 1, 2016). Vale do Capão has become known for its mysticism, naturalism and spiritualism in the past 15 years with the increase in tourism (I. Rocha, Personal communication, November 14, 2016). It attracts many people from all over the world that hope to live among nature, as the streets are lined with natural food stores, vegetarian restaurants and trekking / guide shops. Yet there have been people living in Capão long before the onset of tourism, and prior to tourism, these people lived solely off of the land. These natives to Capão lacked money, jobs, and access to transportation. The people of Capão were guaranteed the fundamental human right of access to healthcare when the health center was established about 37 years ago (A. Augusto, Personal communication, December 1, 2016). Yet it wasn't until the arrival of tourism about 15 years ago, that there was an increase of money in Capão, which allowed for a greater quality of living that is present in the community today. Tourism helped to establish basic human rights for the natives of Capão. The current state of Vale do Capão with its mix of natives and immigrants, and its emphasis on naturalism provides a truly unique location for my project. The majority of the Capão population lives in harmony with nature and emphasizes respect for nature in their daily lives, thus are utilizing many aspects of nature for the promotion of their well-being and health.

Social and Personal Relevance

This topic is increasing in relevance as climate change diminishes various aspects of nature. The rapid process of urbanization in Brazil has had drastic effects on the natural environment. Pollution levels are increasing, species are becoming extinct, biodiversity is diminishing, and instances of deforestation and desertification are increasing (The Social Causes of Health Inequalities in Brazil, 2008). Studies have shown that increases in the levels of air pollutants, due to climate change, are associated with increased mortality and morbidity

rates related to respiratory and cardiovascular problems, especially in children and the elderly (The Social Causes of Health Inequalities in Brazil, 2008). Climate change is having a drastic impact on the natural environment, which is consequently affecting the health of the general population. A 2011 Lancet article on the health conditions and health-policy innovations in Brazil describes the need to lessen the outcomes of environmental and climate change. An aspect of this environmental change is deforestation and the rapid development of large urban areas, which have both been associated with the urbanisation of malaria (Victora et. al., 2011). This environmental change is resulting in increasing rates of chronic diseases and disabilities, and contributing to the spread of infectious diseases, which are both negatively impacting the health of the population. One's living conditions and the resources within one's geographical location are fundamental to the promotion of well-being and one's access to health resources. Thus as environmental conditions diminish, this topic of well-being in nature develops a greater importance because we begin to question how this promotion of well-being can even be maintained if the natural environment is not well. Nature is a proven benefit for one's health, yet in order to maintain this benefit from nature, we must protect the environment. We must ultimately preserve the wellness of nature in order to promote wellness of the human population.

I am passionate about the environment, and also about health, as I hope to be a doctor when I am older, thus I am fascinated by the intersection of these two topics. This topic holds strong personal relevance for me as an avid hiker and backpacker. When I am outside, I feel most healthy, especially in regards to my mental health and physical well-being. So much of my well-being stems from spending time in nature, thus I was interested in seeing how nature influences well-being for the community of Vale do Capão, while collaborating with Lothlorien and Dr. Aureo Augusto. I hope to shed light on how the Capão community

members use nature to promote their well-being, and communicate the importance of nature and preservation of the environment in context of this community.

Literature Review

For the purposes of this study, nature is defined as an organic environment where the majority of ecosystem processes are present (e.g. birth, death, reproduction, relationships between species) (Maller, 2005). This includes the spectrum of habitats from wilderness areas to gardens. Nature also refers to any single aspect of the natural environment (such as plants, animals, soil, water or air). In addition, the definition of “well-being includes the presence of positive emotions and moods, the absence of negative emotions, satisfaction with life, fulfillment and positive functioning. In simple terms, well-being can be described as judging life positively and feeling good”(Well-Being Concepts). The definition of health promotion is the process of enabling people to improve their health, which is tied to the definition of well-being, because ultimately health promotion activities aimed at strengthening individual, environmental and social resources may improve well-being.

Health promotion in nature exists in many forms, from using aspects of nature medicinally, to gardening in your backyard, to hiking on your local trails. The literature supports that nature is proven to benefit human health, and improved moods and reduced stress are the most consistent benefits of nature contact across research studies, regardless of whether they are controlled laboratory experiments or field studies (Heerwagen, 2009). For example, in a “1998 National Gardening Survey of more than 2,000 randomly selected households, half of the respondents agreed with the statement that flowers and plants at theme parks, historic sites, golf courses, and restaurants are important to enjoyment of these locations, and 40 percent agreed with the statement that being around plants makes them feel calmer and more relaxed” (Institute of Medicine, 2001). Exposure to plants and flowers

nourishes a sense of our well-being, thus our living conditions are extremely important and ultimately have an impact on our health. This is also seen through early research, which found that an experience of nature can help strengthen the activities of the right hemisphere of the brain, and restore harmony to the functions of the brain as a whole (Furnass, 1979). This is a biological explanation for the process that occurs when people “clear their head” by going for a walk in a natural environment (Maller, 2005). Evidence also exists for the therapeutic benefits to be gained just by viewing nature. Rohde and Kendle found that the psychological response to nature involves feelings of pleasure, sustained attention or interest, and diminution of negative emotions, such as anger and anxiety (Rohde and Kendle, 1994). One does not need to be in nature to reap its health benefits; just by viewing nature many aspects of human health can be improved.

National parks are extremely important in the promotion of well-being for a population. National parks are scenic public land that is protected by the government for the enjoyment of the public or preservation of wildlife. In the United States, the National Park Service has been around for 100 years, and has contributed to the health and well-being of Americans by providing places that enable physical activity, promote mental health and wellness, and foster community through the preservation of ecosystems and interpretation of a shared heritage (The National Parks and Public Health, 2013). Brazil took after the United States and created its first national park in 1937, and as of 2011, it had a total of sixty-six parks (Howkins, et. al., 2016). “The Brazilian Ministry of the Environment reports that currently Brazil has the fourth largest expanse of protected areas in the world, behind the United States, Russia and China” (Howkins, et. al., 2016). Thus, national parks are becoming an increasingly important part of Brazil and the Brazilian population’s promotion of well-being.

National parks serve an important role in the preservation of the environment, as national parks protect land and ultimately support the conservation and stewardship of land, water and natural resources ("Role of Parks and Recreation in Conservation", 2016). The conservation and preservation of the natural environment is becoming increasingly important as human actions continue to negatively impact the conditions of our planet. NASA publishes important scientific measurements regarding climate change, such as temperature, carbon dioxide and sea level changes. The global sea level rose about 17 centimeters in the last century, the global temperature rose 1.7 degrees Fahrenheit since 1880, and the carbon dioxide levels have nearly doubled since 1950 (Climate Change: How Do We Know?, 2016). The carbon dioxide levels are hugely important to note, because carbon dioxide is a greenhouse gas, meaning it traps heat in the Earth's atmosphere, and is released through human activities such as burning fossil fuels and deforestation. Global climate change has observable effects on the environment, such as the change in precipitation patterns and species distribution, and the increase in ocean acidity. These changes in our environmental conditions ultimately affect our health, as the redistribution of rainfall will affect our water resources, the increase in ocean acidity may affect how oceans provide food for us, and the changes in species distribution will affect where we can grow food (Climate Change: How Do We Know?, 2016). Our access to water and food is vital to our health, as they are resources necessary for survival. Yet they are also important resources used in naturalist procedures to aid in the prevention and promotion of health for naturalist medicine.

Naturalist medicine, an aspect of Dr. Aureo Augusto's practice, incorporates elements from nature to help those with illnesses or to help maintain health. Some of these procedures include hydrotherapy (the use of water), geotherapy (the use of soil) and phytotherapy (the use of plants). Dr. Aureo Augusto uses all of these procedures in his practice, and his approach to medicine is called neo-hippocratism (A. Augusto, personal communication,

November 14, 2016). Neo-hippocratism emphasizes the power of natural immunity, and the use of simple agents of nature--diet, exercise, bathing, sun- and air-baths, psychotherapy-- rather than the use of endless allopathic remedies such as pharmaceuticals (Warden, 1931). This approach to medicine is important, as it considers every aspect of an individual and the various factors influencing health, rather than diagnosing a problem and solving it with pharmaceuticals. This holistic approach to the human body allows for one's well-being to even be considered in the medical field. In addition, the use of aspects of nature to treat illnesses, through naturalist medicine, shows the direct importance of nature on our health.

Engagement and Methods

I stayed at Lothlorien from November 7th to December 4th, and participated in a work exchange at the center. I would start each morning in the temple at Lothlorien with stretching and meditation with Sonia, one of the founders of Lothlorien. I then had the work exchange from 9am to 12pm, every morning Monday through Saturday, which entailed doing various tasks around Lothlorien that Sonia assigned. These tasks included things like sweeping, cleaning, raking, washing dishes, making business cards and painting. After the work exchange each morning, I ate lunch with the Lothlorien community. After lunch, I did not have any responsibilities at Lothlorien, and the center was typically very quiet in the afternoons, so I would spend my afternoons engaging with the Vale do Capão community. This included interviews, visiting other nearby communities, attending some of Aureo's classes and observation in the village. I interviewed a total of ten people, all of which live in the greater Vale do Capão area. These interviewees were all by Aureo's recommendation, as he provided me with a list of people with varying jobs and years spent in Capão, and helped introduce me to these people after each of our advising meetings. Due to time constraints I was unable to develop my own pool of contacts, but I believe Aureo's recommendations are

strong, and that I was able to obtain a diverse pool of interviewees. I interviewed two people that do not directly live within the village of Capão: Thatiana, who lives in Comunidade Campina, a community similar to Lothlorien that is located two hours by walking from Lothlorien; and Ian, a chiropractor who works primarily in Seabra, but who also has a office near the village of Capão. I interviewed Thatiana to get a better understanding of what Comunidade Campina is like, and learn about how it is similar and different to Lothlorien. I interviewed Ian to gain perspective from another health professional in the area, and to learn about his work with both medicine and the environment. I interviewed three people native to Capão: Landinha, a woman that makes and sells granola in Capão; Angenice, the cook at Lothlorien; and Elidiane, the director of *Escola Comunitária Brilho do Cristal*, the community school next to Lothlorien. I interviewed these three women to gain a broader insight into the change that Capão has gone through, especially with the onset of tourism, and to learn about how this change has influenced their lives, their health and the environmental condition in Capão. I interviewed five other people that work in the village of Capão in varying professions. This included: Veronica, who owns *Sobrenatural Produtos Integrais*, a natural food store in the village; Emiliano, or more commonly known as Santinho, who owns *Horto Vale Flora*, a garden next to Lothlorien; Juliana, the president of the association at *Escola Comunitária Brilho do Cristal*; Linalda, who owns *Capão Grande Pizzaria Integral*, the natural pizzeria in the village; and Sonia, one of the founders of Lothlorien. In talking with people of varying professions and years spent in Capão, I was able to gain a more comprehensive understanding of the various ways in which people promote their well-being in Capão.

I collected my data through these 10 semi-structured interviews, participant-observation at Lothlorien and observation in the village of Capão over the course of the month long study period. I conducted a private one on one meeting with each of my

interviewees at their location of work. I crafted a set of questions about health, nature and Vale do Capão, and examples of these questions can be found in the Appendix. These questions served as the starting point for each interview, though some follow up questions were asked for clarification or to encourage more elaboration. At the start of each interview each individual was asked to sign an informed consent form (found in the Appendix). 8 of the 10 interviews were performed in Portuguese, and 2 were conducted with English speakers. During the interviews I took detailed notes to the best of my ability, and had each person talk slowly to aid in note-taking and in my understanding of Portuguese. After the conclusion of the interviews I took a moment to write up a detailed summary of the conversation, including my impressions, descriptions of their place of work, and as many exact quotes as I could remember to the best of my ability. As I interviewed more people I read and re-read through them, in order to categorize themes I saw. In addition, I took notes after each activity I participated in at Lothlorien, and tried to write down as much as I could each day about my impressions of the center and my interactions with the Capão community in the village on that day. I then used these notes in conjunction with my interview notes to further categorize themes to aid in the analysis in the final monograph.

I chose to interview people, in a semi-structured manner, because I believe the best way to understand how people in the Capão community are using aspects of nature to benefit their well-being is to talk to them about it. These interviews allowed for a greater understanding of why each person values nature, and created a space for each interviewee to talk about their health and well-being. Whereas, with a survey, I would not have gotten as in-depth answers as I received through interviews, and I would not have been able to see the passion and excitement in each person as they talked about the importance of nature. Through participant observation, I was able to see how the community of Lothlorien promotes their well-being, and participate in this promotion, such as meditation each morning. Through

participant observation, I was able to understand how these activities are truly beneficial for one's health, as I noticed a difference in my own well-being. Through observation in the village of Capão, I was able to notice how the community emphasizes respect for nature, through the restaurants, posters and various stores in town.

The most significant limitation on my research was the language barrier. The conversation flow was not as fluid as it could have been if I had spoken more Portuguese, thus I missed opportunities to ask important follow-up questions on what they were saying. I conducted two interviews with English speakers, and found that there was more flow to those conversations, and I was able to ask questions that allowed for a more in-depth conversation. For the interviews in Portuguese, although I understood most of what the interviewee was saying, it took me more time to process what was being said, thus I missed chances to ask questions that would have allowed the person to delve more into the topic. Another limitation on my project was the fact that I was not allowed to shadow any health professionals in the health center in Capão (Unidade de Saúde da Família Caeté-Açú), thus I was not able to see exactly how health is promoted and diseases are prevented by the primary health professionals in Capão. I attended some of Aureo's classes in the health center to his medical school students and could observe the health center from the outside, but that was unfortunately the extent of my interaction with the center. However, through my advising meetings with Dr. Aureo Augusto (the doctor at the health center), I was able to gain a slightly greater understanding on the health center. A third limitation on my project was that I had a tape recorder that was non-functionable, thus I was only able to record two interviews. While I feel I took accurate and thorough notes during each interview, and wrote down more notes and reflected after each interview, it is still not as thorough as having an exact transcription of each interview.

Focus Project

While staying at Lothlorien, I had the opportunity to paint a mural at the center, as a way to give back to the community that hosted me for four weeks. Over a two and a half week period, I proposed the idea to the people of Lothlorien, created sketches of potential designs, got a design approved, cleaned and repainted the wall, and then completed my mural. The actual painting of my mural took about a week of working all morning, and some days I worked all day until it got dark. Lothlorien provided me with the necessary materials to complete this project: paintbrushes, weather-resistant paint, and a ladder. I appreciate their trust in me for allowing me to paint one of the walls at their center.



Figure 1. The wall before painting



Figure 2. The wall after painting

Ethical Considerations

My primary ethical issues will be conducting responsible and appropriate interviews, especially while considering my Portuguese language ability. Before beginning the interviews I explained the purpose of the interview in context of my project. I obtained the legal consent of the participant through having the interviewee sign the SIT Study Abroad Informed Consent form. However, I initially overlooked giving the top portion of the consent form to each interviewee, so in my last week in Capão, I went back to each interviewee to give them their portion of the consent form. When I went back to each interviewee, I also made sure to clarify if they preferred that their identities remain confidential and their information anonymous. Each interviewee gave me permission to use their name and information in my monograph. My main concern relates to my understanding during the interview, as I did not have a tape recorder available for the majority of the interviews, thus I had to depend on my Portuguese language ability. I consider myself a beginner in Portuguese, so there are a lot of opportunities for miscommunication and misinterpretation. This is a

potential ethical issue because my limited ability means that I could have misinterpreted information and conveyed a wrong interpretation in my self-ethnography. In attempt to minimize this, I had each interviewee talk slowly, and repeat themselves when necessary. I asked clarifying questions and repetitive questions in order to solidify my understanding of what they were saying. Some of my interviews were with English speakers, thus language translation was not an issue in those cases. In addition, another concern of mine relates to my analysis of the interviews. I do not hope to over-generalize or stereotype any belief or group of people. While a lot of the participants shared opinions and I had a sample size of only 10 people, I have tried my best to provide an analysis within the framework of my project. In addition, due to my socioeconomic status, the possibilities of providing recommendations of being healthy in nature, can be often limited due to the mere cost of accessing national parks, such as Chapada Diamantina. Thus I need to be mindful of the generalization of my recommendations, because these forms of well-being in nature can become a privilege rather than a right.

Another source of ethical issues is my participation in the work exchange at Lothlorien. I made sure to engage in the activity to my fullest extent and followed all instructions carefully, in order to ultimately cause no harm to the center and the people within the center. It is important that I was fully present each morning in order to fully contribute to the work exchange, as this work was to subset my living cost. I tried to put in my full effort each day, so that they did not feel that I was taking advantage of the cheaper living costs without giving my part. In addition, I made sure to always check in with Sonia to see what other work there was for me to do, or to let her know if I had to miss a morning to conduct an interview and would work in the afternoon instead. I made sure to get her permission in each of these instances, in order to limit any potential ethical issues.

Observations and Impressions

Various Forms of Health Promotion in Nature

Through interviewing people within the Capão community, I learned that there are many ways in which these community members use nature to promote their well-being. One of the questions I asked each interviewee was: “In what ways, or forms, is nature beneficial or harmful for your health and well-being?” People would typically respond with ways that are beneficial for their physical health, so I would follow up and ask the same question but especially in regards to mental, social and spiritual well-being. I got a wide array of responses, with the most common being the importance of planting and gardening. Emiliano, or more commonly known as Santinho, the owner of *Horto Vale Flora*, a community garden in Capão, talked about Mother Earth and how important it is for our health. He said that working with the soil is very therapeutic for him, and planting is important for healthy eating and natural medicines, but also for the health of our environment (E. Neto, Personal communication, November 19, 2016). Similarly, Veronica, the owner of *Sobrenatural Produtos Integrais*, a natural food store and gift shop in Capão, talked about how when she feels sad, she goes to plant or be among nature, because plants help make her feel happy (V. Oliviero, Personal communication, November 18, 2016). Angenice, the cook at Lothlorien, echoed a similar sentiment, in that she said that she finds planting very therapeutic (A. Pereira dos Santos Silva, Personal communication, November 22, 2016). Seven out of the 10 interviewees explicitly mentioned the importance of gardens in the community, because they provide spaces to plant and to grow organic fruits and vegetables. In fact, at *Escola Comunitária Brilho do Cristal*, the community school next to Lothlorien, they have a class that teaches the children how to plant and use medicinal plants (J. Rodriguez, Personal communication, November 21, 2016). I also talked to my advisor, Dr. Aureo Augusto, about this after asking him if he thought the health of the people in Capão has gotten better or worse

in the past 30 years. He thought that the health has gotten much better, because the food has gotten much better (A. Augusto, Personal communication November 17, 2016). He said that 33 years ago when he arrived in Capão there were no gardens. He said that people would plant vegetables and fruits, yet it wasn't efficient because they were not properly organizing their crops. Yet now there are many gardens, 5 stores that sell only fruits and vegetables, a fair to sell fruits and vegetables that occurs twice a week, and also a van that sells fruits & vegetables in Capão (A. Augusto, Personal communication November 17, 2016). He emphasized how these gardens have increased the access to healthy eating, and there is now a greater importance among the community to eat organic, natural foods. Nearly every restaurant in the village advertises vegetarian options, all-natural and organic ingredients, and integral bread or pasta. In Aureo's practice, he emphasizes the importance of diet for one's health. Simple diet changes can go a long way in treating various illnesses. In fact, there is a neurologist named David Perlmutter, who uses dietary recommendations to treat neurological disorders. He talks about how carbs are destroying our brain, and that even whole grains can cause dementia, ADHD, anxiety, chronic headaches, depression, and much more (David Perlmutter, 2016). The importance of our diet goes beyond just our appearance and our physical health, but also affects our mental health. And our diet extends back to nature as the foods that are healthiest come directly from the soil. With this, plants are not only beneficial as a source of nutrition, but also serve many medicinal purposes.

The use of medicinal plants and other naturist procedures are at the heart of Aureo's practice. In addition, many gardens in Capão include medicinal plants. One of the questions I asked each interviewee was: "When you are sick, do you use herbal medicines?" All 10 interviewees answered yes to that question. Three of the interviewees then elaborated and said that they use medicinal plants as the first form of treatment, and if it does not work, they use allopathic treatments or go to Aureo for help. Aureo published a manual for naturist

procedures to aid people in using these procedures when sick. These procedures are to help those with illnesses or to help maintain health. He writes how he did not invent the procedures or discover new practices, but that he is simply describing these useful procedures to make the knowledge accessible to people who seek it (Augusto, 2015). The manual primarily includes procedures such as hydrotherapy, geotherapy, and phytotherapy to cure various ailments. Aureo helps in spreading this knowledge, thus many people in Capão use natural medicine as a way to promote their well-being.

Another response I heard from interviewees is that nature helps promote well-being through walking and hiking. Linalda, who owns *Capão Grande Pizzaria Integral*, the natural pizzeria in Capão, said that she walks everywhere, which is very important for her physical health (L. Silva, Personal communication, November 21, 2016). Similarly, Thatiana, who lives in Campina, the community similar to Lothlorien in Vale do Capão, said that she can walk everywhere and doesn't need a car, and that she can hike whenever she wants to (T. Medeiros de Castro, Personal communication, November 18, 2016). The small community and dirt roads create an environment in which walking has to be the primary source of transportation, but the beautiful location among nature allows for walking to be an enjoyable, sought out source of transportation. This enjoyment from walking in nature supports Maller's evidence of a biological explanation for the process that occurs when people "clear their head" by going for a walk in a natural environment (Maller, 2005). Thus walking in nature is not only beneficial for one's physical well-being, but for one's mental well-being.

Each interviewee also talked about the importance of contact with nature. Responses varied in specific examples, but all emphasized various aspects of existing within nature that benefit their health. Thatiana talked about how when she has negative emotions or is unwell, she swims in the river and it washes her of all her negativity. She said that the river has calming properties (T. Medeiros de Castro, Personal communication, November 18, 2016).

Similarly, Elidiane, the director of *Escola Comunitária Brilho do Cristal*, said that when she is stressed, she swims in the river and feels way better afterwards (E. Bastos de Souza, Personal communication, November 21, 2016). Sonia, one of the founders of Lothlorien talked about the purity of air, and how important it is that she breathes great, non-polluted air in Capão (S. Christophe, Personal communication, November 29, 2016). Linalda also talked about how important the clean air is in Capão for breathing. She also said that when she wakes up and sees nature, she is calm. She said that for her, being among nature is peaceful and cleaning (L. Silva, Personal communication, November 21, 2016). Ian, the chiropractor in the Capão area, echoed this sentiment and said:

“I think just being in an area where you can hear the birds singing gives you a piece of spirit- where you can hear the water going, where you can hear the wind, and the crickets, and just nature. It just gives me that stillness that I need. I could live in the city a while, but I get pretty restless, and I get pretty unhappy after a while” (I. Rocha, Personal communication, November 14, 2016)

Simply hearing and seeing nature provides a sense of tranquility for some, which is important because it demonstrates further that by being amidst nature many aspects of human health can be improved. This supports the literature from Rohde and Kendle, regarding their evidence that there are therapeutic benefits to be gained just by viewing nature, and that the psychological response to nature involves feelings of pleasure, and diminution of negative emotions, such as anger and anxiety (Rohde and Kendle, 1994). Capão’s location within a beautiful valley amidst nature allows for contact with nature to be a part of the community members’ daily lives, which is one prominent way to promote well-being.

The Importance of Nature and Preserving Our Environment

The Capão community places a huge importance on nature, which I learned more about through the interviews I conducted. One of the questions I asked each interviewee was: “In your opinion, why is nature important or not important?” I heard a lot of incredible, inspiring answers. All 10 interviewees responded to this question with varying degrees on the importance of nature, but in general all said that nature is important. Juliana at *Escola Comunitária Brilho do Cristal* said that nature is fundamental, in that we can’t live without it. She said that we must be careful with the environment in order to be careful with ourselves (J. Rodriguez, Personal communication, November 21, 2016). Similarly, Veronica at *Sobrenatural Produtos Integrais* said that nature is important because we are a part of nature and so is food and medicine. She then said that if we’re not careful with the environment how will we properly live? (V. Oliviero, Personal communication, November 18, 2016). Linalda at *Capão Grande Pizzaria Integral*, said that she can’t imagine life without nature, and that we need nature to live because it is a part of us and it is essential for life (L. Silva, Personal communication, November 21, 2016). Sonia at Lothlorien said: “I think nature is much more than important. We know, we see what happens when man destroys nature, and this destroys our life. We need pure air, we need good vegetables and good food, we need peace” (S. Christophe, Personal communication, November 29, 2016). Among each of these responses is an emphasis on their belief that we are nature, thus we must protect nature in order to protect ourselves. These responses highlight the importance of preserving our environment, and I was also able to gain a greater understanding of this importance through participant observation at Lothlorien.

For the work exchange at Lothlorien, I was assigned various tasks which were primarily outside, and included things like raking, picking up mangoes in the yard, assisting in the garden and cleaning up trash from the abandoned house on Lothlorien’s property.

When Sonia did not have a specific task for me, she encouraged me to find something to do outside, in order to enjoy the natural environment. These tasks highlight the importance of cleaning up the environment and preserving nature, which is also evident through respect for nature, one of Lothlorien's founding principles. I also noticed this emphasis on respect for nature among the general Capão community. On nearly every menu at the restaurants that I went to in Capão was a statement about preserving nature, or a blurb about their healthy food in harmony with nature. Yet despite this emphasis on preserving the environment, there is an issue with waste disposal, specifically trash, in the community. Through various interviews, I heard about community member's thoughts on tourism, and what affect tourism has had on the health of the community. Ian talked about how the people brought a greater financial condition with tourism, but they didn't necessarily bring good habits. He talked specifically about the issue with trash and how to manage it because the public system doesn't help with getting rid of it (I. Rocha, Personal communication, November 14, 2016). Veronica talked about conscientious tourists, in that not all tourists here are conscientious, thus these are the people that leave trash everywhere (V. Oliviero, Personal communication, November 18, 2016). While eating dinner in the village one day, I noticed a sign posted in the restaurant about a community meeting to talk about what the community as a whole will do to diminish, recycle and encourage conscientious management of trash. Unfortunately the meeting had already passed by the time I saw the sign, but after that, I started to pay closer attention to the evidence of trash around Capão. I noticed that while there are many innovative ways the community recycles plastic bottles, such as beautiful decorations and toys at *Escola Comunitária Brilho do Cristal*, there is also an abundance of trash left in the trash collection locations, and it rarely got collected. I also noticed that next to the trash collection location, there is a sign that reads: "Protect nature, it's everyone's fight! Join the fight!" Thus while there is an emphasis on protecting the environment within the community, there is also a

drastic issue with trash, which is ultimately negatively impacting the health of the Capão community. These habits, especially regarding trash, will only worsen as more people visit Capão if there is nothing done to change these habits. As many of the interviewees noted, nature is fundamental and we must be careful with it, otherwise we will harm ourselves. This is a small glimpse into the many ways humans are negatively impacting the environment, but it is important to note that simple changes in habits can go a long way in improving the health of our environment, and consequently the health of the human population.

The issue with trash is one aspect of many changes in the environmental condition of Capão. I was curious to hear Aureo's opinion about climate change in Capão, as he has been living there for over 30 years. During one of our advising sessions, I asked him: "Do you think the environmental condition has gotten better or worse in the past 30 years?" His response was that climate change is obvious (A. Augusto, Personal communication, November 21, 2016). He said that it now rains less than it used to, the sun is now stronger, the ground is harder than it used to be, and the river has less water. He said the only thing that has improved is that there is more forest now in Capão, because the people who used to cut down the forest stopped, and that the people of Capão are very worried about conserving trees (A. Augusto, Personal communication, November 21, 2016). I asked this same question to Sonia and she said that at Lothlorien they track the amount of rain per month, and that it is not incredibly clear, but it appears that there is less rain than there was 30 years ago when she arrived (S. Christophe, Personal communication, November 29, 2016). She also said that when the founders of Lothlorien arrived in Capão about 30 years ago, they had the idea of maintaining the trees, and helping nature and not destroying it, thus she thinks that helped improve the environmental conditions to some extent (S. Christophe, Personal communication, November 29, 2016). I also asked Ian, the chiropractor who also does permaculture work, this question, and he said he has noticed a fast change in the

environmental conditions (I. Rocha, Personal communication, November 14, 2016). He said that within our lifetime, we can see a huge change, and that even within a couple of years, he has seen a substantial amount of change. He said that this change is in the way we manage things, but that the interesting thing is that the earth responds to this change in the same way our body responds to a stimuli. If we stimulate it right, it will respond with better health (I. Rocha, Personal communication, November 14, 2016). This relates to his work with permaculture, where he helps bring life back to damaged land and helps nature restore itself through organization of matter. Permaculture is an approach that guides us to mimic the patterns and relationships we can find in nature, and can be applied to all aspects of human habitation, from agriculture to ecological building, from appropriate technology to education and even economics (Permaculture Principles). The goal of permaculture is to go from being dependent consumers to becoming responsible producers. In learning about permaculture through Ian, I asked him: “Do you think if everyone was doing permaculture work, that the earth would restore itself back to how it once was?” He responded with definitely, and that we would have a planet that is much more suitable to living than we have right now. He said that “right now we have a planet that we’re consuming the hell out of. One day it just might not have enough, and then we’ll have to start all over. And what we had, we had everything to start with” (I. Rocha, Personal communication, November 14, 2016). Thus by organizing what already exists in nature, we can allow the environment to function efficiently and help restore life back to damaged land. The environmental changes that Ian, Sonia and Aureo have noticed in Capão support the literature on the global issue of climate change. Climate change is affecting the soil and the precipitation patterns in Capão, which will ultimately influence the ability to grow fruits and vegetables in the gardens, and could potentially change Capão’s access to food in the future, which is an important factor influencing the health of the population. In addition, these permaculture principles are important in the context of a

national park, as these principles help to support the conservation of land, water and natural resources. These permaculture principles ultimately promote the health of the natural environment, help restore damaged land, and encourage us to become responsible producers, all of which are fundamental to our promotion of well-being within nature. Without nature, how can we use gardening, hiking and natural medicine to promote our well-being?

Critical Self-Reflection

This project was hugely impactful on both my personal and academic views. Personally, this was an extremely challenging month, as I transitioned from being with my SIT peers nearly every day to being alone in a community where I knew no one. I had to cook myself breakfast and dinner, which is a task that I avoid in the United States, as I don't enjoy cooking. I was a part of a community at Lothlorien that is very focused on introspection, and while I love alone time, I also thrive off of time with friends and family. I tend towards the shy side, yet had to be more outgoing in order to create connections and build a community in Capão. I faced my fear of cooking, eating dinner alone, and going up to a stranger and interviewing them. Yet through all of the initial challenges, I found comfort in the incredible scenery and nature around me. My entire first week I was in Capão I felt isolated and alone, and was worried about being there for an entire month on my own. Yet that first weekend I went hiking to Cachoeira da Fumaça, which completely changed my outlook on the month, and transformed my worries into an excitement. An excitement that made the rest of the month absolutely incredible, and full of experiences that I wouldn't have had, if I had not put the same effort and positive attitude into each day as I did. Morning meditation with Sonia helped me set a positive intention for each day, and while meditation was something I occasionally did when stressed, I have realized the importance of including it into my daily routine. Overall, while I knew contact with nature is beneficial to my well-being, especially

mental health, this month in Vale do Capão completely confirmed that, as I believe the walking each day, hiking on the weekends, and healthy, natural eating transformed my mentality from absolutely negative in the first week, to entirely positive in the fourth week. It was such a transformation that in the first week I was begging to leave, and by the fourth week, I was begging to stay. Vale do Capão helped empower me to be independent, to be okay with being alone, to talk to that stranger, and to walk that extra hour even if I'm feeling lazy. I am nothing but grateful for my experience and the personal transformation that it brought.

This project was also hugely impactful for my academic goals. My advisor, Aureo, was so inspiring for my future career path and provided incredible insight on some of the issues I have been grappling with regarding the current system with medical education, and healthcare systems. I hope to be a doctor in the United States, but have been struggling with the fact that the hegemonic medical approach is solely allopathic, and the system focuses on a strict biomedical approach. I feel this creates a drift away from treating patients as human beings, and more like robots with problems to be fixed. And fixed primarily (and often solely) by pharmaceuticals, commonly resulting in an over-medicalization of the problem in the first place. Thus with all of this in mind, I still want to be a doctor, but hope to emphasize more holistic approaches to medicine, and bring the attention back to the patient as a human being. Which is exactly what Aureo is doing through his neo-hippocratism work in the health center by using primarily natural remedies for his patients. During one of my advising sessions with Aureo, we had a conversation about this concern of mine regarding the current medical system. Aureo emphasized how there is a need to unite all the various therapies of medicine, because he thinks that there is truly only one medicine, but many ways of therapy and treatment (A. Augusto, personal communication, November 14, 2016). He said which therapy to use is situation-based, but more often than not, homeopathic treatment is what is

needed. I asked him how he is trying to combat the large pharmaceutical companies that own everything, and he said he is not trying to combat anything, but that he wants to work in accordance with the public system, and spread knowledge about the importance of natural medicine (A. Augusto, personal communication, November 14, 2016). This relates to the greater need in healthcare to incorporate other approaches to medicine besides an allopathic / biomedical approach. In fact, there is an increasing trend in integrating complementary and alternative medicine (CAM) therapies with the practice of conventional medicine across the medical field (Institute of Medicine, 2005). Integrative medicine centers and clinics are being established, and many with ties to medical schools and teaching hospitals. Thus, uniting these various therapies in our healthcare system is becoming of increasing importance, and we are hopefully on the brink of a new integrative approach to medicine.

Conclusions

There are many ways in which nature is used to promote well-being for the community of Vale do Capão. The most common way is through gardening and working with the soil, as both a means of therapy and a source of nutrition. Nutrition is extremely important for one's health, and the primarily natural diet of most people in Capão contributes to their physical and mental well-being. Yet climate change is changing where we can grow food, thus preservation of the environment becomes exceedingly important, as it directly affects our health. In addition, if we hope to maintain the benefit from contact with nature for our health, we must ultimately preserve the wellness of nature in order to promote wellness of the human population.

Upon return to the United States, I will continue to emphasize the importance of nature in my daily life, and work towards becoming the most socially and environmentally responsible citizen that I can be. I also plan on researching doctors with similar approaches to

Aureo's approach to medicine near my school in Los Angeles, with the hopes of having the opportunity to shadow them, and to learn more about their work and medical education in a context of the United States. In addition, I hope to encourage others to join similar environmental efforts, as spreading awareness about the effects of climate change is an important way to advocate for the preservation of our environment.

Lothlorien has important founding principles that I believe could benefit many people if they had access to this knowledge. Thus, making this knowledge available to learn about through classes would be a great way to spread awareness on topics such as environmental preservation, respect for nature and the promotion of well-being.

Due to time restraints and the themes of my proposed study, I could not go into this, but a future focus topic for future students is to look further into how race and socioeconomic status play a role in who has access to centers like Lothlorien. From my experience at Lothlorien, I noticed that people of middle to upper socioeconomic class have access to such a center, as it requires money and resources to travel to the center in the first place. In addition, the intersectionality of class and race provides an interesting starting point for a future project, because through my observations at Lothlorien, I observed that primarily white women accessed this center, and had the desire to access a center such as Lothlorien.

Looking back, I am realizing that I should have started interviewing community members earlier, and had a functioning tape recorder with me for each interview. Aureo provided me with a large list of people to interview, and while I interviewed the majority of the list, there were still important people I missed the opportunity to interview due to time constraints. In addition, I believe I should have tried to get more involved with the various events hosted at Lothlorien, such as the weekly dance classes, in order to gain a greater understanding, through participation, into the types of classes and events that Lothlorien hosts, and how they help promote well-being.

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Appendix

Interviewees

1. Ian Rocha, DC, chiropractor in the Vale do Capão region: November 14, 2016
2. Landinha Pereira dos Santos, who sells natural granola in Capão: November 17, 2016
3. Thatiana Medeiros de Castro, community member of *Comunidade Campina*:
November 18, 2016
4. Veronica Oliviero, owner of *Sobrenatural Produtos Integrais*: November 18, 2016
5. Emiliano Neto, commonly known as Santinho, owner of *Horto Vale Flora*: November
19, 2016
6. Juliana Dias Rodriguez, president of the association of *Escola Comunitária Brilho do
Cristal*, November 21, 2016
7. Elidiane Bastos de Souza, director of *Escola Comunitária Brilho do Cristal*:
November 21, 2016
8. Linalda Maria Silva, owner of *Capão Grande Pizzaria Integral*, the natural pizzeria in
Capão: November 21, 2016
9. Angenice Pereira dos Santos Silva, cook at Lothlorien: November 22, 2016
10. Sonia Maria Christophe, one of the founders of Lothlorien: November 29, 2016
11. Aureo Augusto, naturalist doctor and my project advisor: [advising sessions]
November 7, 10, 14, 17, 21 and December 1, 2016

Sample Interview Questions

1. Quantos anos você mora em Capão?
 - a. *How many years have you lived in Capão?*
2. Onde você trabalha e o que você faz?
 - a. *Where do you work and what do you do?*

3. Na sua opinião, a saúde das pessoas em Capão ficou melhor ou pior nos últimos ** anos? E por que?
- a. In your opinion, has the health of the people in Capão gotten better or worse in the last ** years? And why?*
- i. ** the number of years would vary depending on how long they had been living in Capão- I would ask the number of years that they told me they had been in Capão.*
4. Como você acha que a localização do Capão na Chapada Diamantina tem influenciado a saúde das pessoas? Você é afetada pelos turistas?
- a. How do you think the location of Capão in Chapada Diamantina influences the health of the people in Capão? Are you affected by tourists? {and if so, how?}*
5. Quando você está doente, você usa ervas medicinais para tratamento?
- a. When you are sick, do you use herbal medicines for treatment?*
6. Na sua opinião, por que a natureza é importante ou não importante?
- a. In your opinion, why is nature important or not important?*
7. Em que formas, a natureza é benéfica ou prejudicial para a sua saúde (especialmente sua saúde mental e social e espiritual)?
- a. In what forms is nature beneficial or harmful for your health (especially your mental and social and spiritual health)?*

Termo de Consentimento Livre e Esclarecido

Prezado(a) Senhor(a)

Gostaríamos de convidá-lo(a) a participar de nosso estudo: **A Importância da Natureza: Uma investigação em como a geografia influencia o bem-estar** que tem como objetivo **estudar como a localização de uma comunidade, especificamente dentro da natureza, influencia seu bem-estar e as várias formas que ela promove a saúde.**

O estudo, consistirá na realização de entrevistas, observações e/ou participações junto as atividades da entidade parceira e posteriormente haverá a análise do conteúdo destas entrevistas e/ou observações. Será conduzida dessa forma, pois pretendemos trabalhar com a experiência de vida dos(as) participantes do estudo.

Trata-se de um estudo, desenvolvido por **Christina Constance Cobb** orientado(a) pelo(a) **Áureo Augusto**.

Garantimos que, a qualquer momento da realização desse estudo, qualquer participante e/ou estabelecimento envolvido, poderá receber esclarecimentos adicionais que julgar necessários. Qualquer participante selecionado(a) tem o direito de recusar-se a participar ou retirar-se do estudo em qualquer fase do mesmo, sem nenhum tipo de penalidade, constrangimento ou prejuízo. O sigilo das informações pessoais dos participantes será preservado, especificamente, quanto ao nome, à identificação de pessoas ou de locais. Todos os registros efetuados no decorrer deste estudo serão usados para fins acadêmicos e serão inutilizados após a fase de análise dos dados e de apresentação dos resultados finais na forma de monografia ou artigo científico.

Em caso de concordância com as considerações expostas, solicitamos que assine este "Termo de Consentimento Livre e Esclarecido" no local indicado abaixo. Desde já agradecemos sua colaboração e fica aqui o compromisso de notificação do andamento e envio dos resultados deste estudo.

Qualquer dúvida ou maiores esclarecimentos, entrar em contato com a responsável pelo estudo: **e-mail:** gabriela.ventura@sit.edu **Telefone:** (71) 99719.6010 (do SIT Study Abroad: Brasil-Saúde Pública, Raça e Direitos Humanos).

Aluno: Christina Constance Cobb
Estudante no Programa do SIT Study Abroad:
Brasil-Saúde Pública, Raça e Direitos
Humanos

_____, _____ de _____
de 2016.
(cidade)

Orientador(a): Gabriela Ventura

Orientador(a): Áureo Augusto

Eu, _____, assino o termo de consentimento, após o esclarecimento e da concordância com os objetivos e condições da realização do estudo "**A Importância da Natureza: Uma investigação em como a geografia influencia o bem-estar**", permitindo, também, que os resultados gerais deste estudo sejam divulgados sem a menção dos nomes dos participantes.

_____, _____ de _____ de 2016.
(cidade)

Assinatura do Pesquisado(a)

Appendix Questions

1. Could you have done this project in the USA? What data or sources were unique to the culture in which you did the project?

I think I could have done a similar project in the USA with a community located near a national park, but it would've likely not had the same emphasis on naturist medicine, that was present with my project due to Aureo's practice.

2. Did the process of doing the CSP modify your learning style? How was this different from your previous style and approaches to learning?

As a biology major, I am used to writing laboratory research papers with more of a quantitative approach, thus this qualitative approach was much different for me. I had little prior experience with writing in a qualitative way, thus the CSP provided this opportunity to explore a different way of writing.

3. How much of the final monograph is primary data? How much is from secondary sources?

My final monograph includes a substantial amount of primary data due to the interviews I conducted. Yet I also have a large amount of secondary sources as I tried to incorporate a vast amount of background information on this topic to provide the necessary context.

4. How did the "drop-off's", community action projects, and/or field activities contribute to the process and completion of the CSP?

They contributed to the development in my CSP project, in that I realized after various field activities that I did not want to study abortion in Brazil, which was my original topic coming into this program in September. These activities helped me realize that my

passion was not in Salvador, but in a location in which I could explore my passion for the environment and for health.

5. What part of the FME course most significantly influenced the CSP process?

The FME course was helpful in narrowing my literature review, and forming my problem statement. It also helped provide necessary background on ethical considerations.

6. What were the principal problems you encountered while doing the CSP? Were you able to resolve these and how?

One of the main problems I encountered was not being able to shadow Dr. Aureo Augusto in the health center, as I was hoping to have the opportunity to see how health professionals promote the community's well-being. I unfortunately was not able to resolve this, as I was simply not allowed to shadow Aureo, but I was able to attend some of his classes in the health center.

7. Did you experience any time constraints? How could these have been resolved?

Yes I did. I lost a day of working on my CSP monograph due to travel, and experienced many difficulties with the wifi at Lothlorien, so I was not able to get as much writing done in the last week as I had hoped. In addition, I did not have enough time to complete as many interviews as I was hoping. This could have been resolved if I started conducting interviews earlier, meaning within my first week in Capão.

8. Did your original topic change and evolve as you discovered or did not discover new and different resources? Did the resources available modify or determine the topic?

Yes, as I discovered resources on the importance of climate change in regards to human health, I modified my topic to include this importance. The importance of preserving of our environment, especially in context with the Capão community, is the main aspect that modified my original topic. In addition, Aureo's neo-hippocratism practice and natural medicine, was another aspect that evolved my original topic slightly.

9. How did you go about finding resources: institutions, interviewees, publications, etc.?

All of my interviewees were by Aureo's recommendation, and he helped connect me with each person prior to interviewing them. In addition, at each advising session, Aureo told me about a piece of literature I should read, or a topic that I should look into, which aided in finding publications on my topic.

10. Comment on your relations with your advisor: indispensable? Occasionally helpful? Not very helpful? At what point was he/she most helpful? Were there cultural differences, which influenced your relationship?

Aureo was extremely helpful, and an incredibly inspiring mentor. We met twice a week to discuss the progress of my project, and at every meeting he helped recommend more resources to aid in the development of my project. He was most helpful in connecting me with people to interview.

11. Did you reach any dead ends? Hypotheses which turned out to be not useful? Interviews or visits that had no application? Or other?

I didn't reach any dead ends, but had many interviews that went off on tangents that were not directly relevant to my project. These tangents were extremely interesting and

related to the general health of the population and the environment, but were not directly related to the specific themes of my project.

12. What insights did you gain into the culture as a result of doing the CSP, which you might not otherwise have gained?

The CSP really helped me engage more directly with the Capão community, and to learn firsthand how friendly and willing the community members are to help me.

13. Did the CSP process assist your adjustment to the culture? Integration?

Yes I believe so. I think it helped me to become more outgoing and to reach out to strangers to get to know them. The CSP process helped me put myself out there to become a part of the Capão community.

14. What were the principal lessons you learned from the CSP process?

I learned that persistence and passion are the two most important values to have through the CSP process, and in designing your CSP topic. My passion for my CSP topic truly made my month experience with this project a transformative one. My persistence through all of my frustrations and difficulties in the process is ultimately what helped in the success of my final product.

15. If you met a future student who wanted to do this same project, what would be your recommendations to him/her?

I would tell them to jump into the project as soon as possible, and to try to start building a community from the very beginning. This community helped me so much with my

project, and I wish I hadn't waited until the second week to truly start building these relationships.

16. Given what you know now, would you undertake this, or a similar project again?

Yes definitely. I think this project was very important to my personal and academic goals, and helped transform my understanding of the importance of nature.