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Eco-Spirituality: Case Studies on Hinduism and Environmentalism in Contemporary India

Vikram Vishnu Shenoy
Bucknell University, vvs002@bucknell.edu

Eco-Spirituality: Case Studies on Hinduism and Environmentalism in Contemporary India

by

Vikram V. Shenoy

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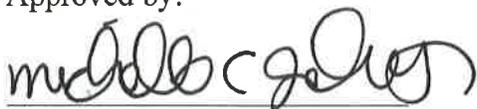
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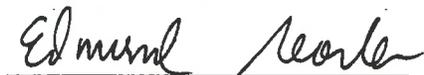
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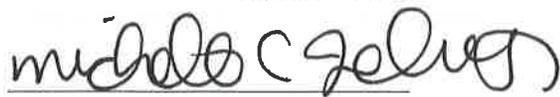
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During my career at Bucknell, I was fortunate enough to travel to India on two separate occasions to conduct my fieldwork. This is an opportunity that most Anthropology undergraduates do not have a chance to experience. My trips to India would not have been possible without the financial support of both the Meerwarth Fund for Undergraduate Research and the Tom Greaves Fund for Research and Curricular development. I am forever grateful to Tracy Meerwarth and Tom Greaves for their contributions to the Department. The resources they have provided will create countless opportunities for Bucknell's next aspiring anthropologists and sociologists to carry out their research.

Bucknell University provided several opportunities for me to share my research with the wider community. I presented sections of this thesis in the 2016 Kalman Research Symposium, the 2015 Sigma Xi Poster Session, and the Meerwarth/Greaves Student/Faculty Reception. It is important for other members of the University to see the

This Honors Thesis is dedicated to my father, Vishnu Shenoy, who has been a driving force behind all that I do and has watched over me.

Death is nothing at all.
It does not count.
I have only slipped away into the next room.
Nothing has happened.

Everything remains exactly as it was.
I am I, and you are you,
And the old life that we lived so fondly together is
Untouched, unchanged.
Whatever we were to each other, that we still are.

- Henry Scott-Holland

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Abstract

India, with its population of 1.3 billion people, is one of the world's fastest growing countries both in terms of population and economy. One consequence of such rapid growth is that India now has levels of environmental pollution that are unprecedented in scale. Hinduism, India's majority religion, is the primary focus of this Honors Thesis. Hinduism is a religious tradition whose roots lie in the ancient Sanskrit *Vedas*. The *Vedas*, along with the *Upanishads* and *Puranas*, hold teachings of nurturing, caring, and protecting all aspects of the natural world. The cultural dynamics of India have drastically changed over the past two centuries, causing a diminishing importance of doctrines for environmental protection embedded within Hindu scripture. In my Honors Thesis, I explore the conflicts between secular and religious institutions as people understand and attempt to combat pollution.

My Honors Thesis is based on anthropological fieldwork carried out in New Delhi, Varanasi, Ranikhet, and Naina Devi during the summers of 2014 and 2015. In carrying out my research, I conducted participant-observation, as well as 9 semi-structured interviews. I found that Hindus understand the current environmental problems dualistically through Hindu scripture and scientific concepts. The conflict arises when religious and secular institutions attempt to combat the environmental problems using a single, secular, ideology. Here, I argue that if India is to successfully mitigate the widespread environmental problems, secular institutions, religious institutions and

environmental activists must come together to provide a pluralistic solution that all

contemporary Hindus can understand and embrace.

Chapter 1: Introduction

Ecology and spirituality are fundamentally connected, because deep ecological awareness, ultimately, is spiritual awareness. –Fritjof Capra

I never expected to be in New Delhi, India, for Christmas break in 2012, but there I was crammed in the back of my uncle's car, stuck in the city's rush hour traffic. I had never been to India when it was cold. This was not the type of cold that I had experienced in Pennsylvania. The combination of the humidity and the dense smog made me nauseous as I bundled up in my warmest clothes. I kept my head down so I could avoid looking out the window, which made me feel even sicker. This allowed me to avoid the air that was coming out from the vent: it smelled as if I had my nose plugged into a car's exhaust pipe. The most recent issue of *The Hindustan Times* was sitting next to me, so I read it to keep myself occupied. In the editorial section, a short blurb probably unnoticed by most, caught my attention. It was written by a *batmaam*, a Hindu priest, and was about the alleged end of the world. As I began to read it, his understanding of the Earth's demise immediately intrigued me. The *batmaam* believed that the end of the world was near but not because the world was going to be destroyed by a black hole or some other cosmic anomaly. Instead, he believed that human beings have lost their morals and have destroyed their own environment. He went on to write about how human beings have polluted the world and how this pollution is not just affecting people but animals as well. "The cows, a symbol of sacredness in our culture, have been left on the side of the road to eat trash," he stated. As a born and raised Hindu, I began to examine and wonder about the vast teachings and mythologies of India's principal religion. What exactly are the

teachings of Hinduism in regards to environmental protection and the treatment of animals? If Hindus are people who practice strict taboos revolving around the purity of people, houses, and ritual grounds, why does India have such a notorious reputation for environmental pollution?

This thesis is an anthropological exploration of the relationship between environmentalism and Hinduism in contemporary India. More specifically, the primary goal of my research is to explore and analyze the ways in which Hinduism shapes how contemporary Indians conceptualize the current environmental crisis facing their country. I will also examine how Hindus view secular organizations, such as Navdanya[1] and the Clean Ganga Campaign[2], which are currently attempting to combat environmental problems such as deforestation and water pollution (respectively). I incorporate two sets of qualitative ethnographic data that I collected on two separate trips to India. During the first trip in the summer of 2014, I traveled to New Delhi where I examined the relationship between religion and environmentalism in an urban center. On the second trip during the summer of 2015, I conducted research on this same issue but in the rural areas of Ranikhet (in the state of Uttarakhand), Varanasi (in the state of Uttar Pradesh), and Naina Devi (in the state of Himachal Pradesh) in order to compare how people in various rural locations view environmental problems. Kelly D. Alley (1998: 297) states: "Scientists, government workers, and religious leaders in India hold differing conceptions of the purity and pollution of the natural world. Their conflicting assessments reflect a

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[1] Navdanya is an Indian NGO that works to help local Indians throughout the country practice sustainable farming. They also work to combat soil erosion and deforestation.
[2] The Clean Ganga Campaign was an initiative by the Sankat Mochan foundation to monitor pollution of the Ganga River independently of government programs.

larger debate between…the sacred and the profane." I argue that these contesting views of pollution, held by different groups throughout India, are a focal point in India's environmental crisis that I will explore later in this thesis, and hope to more thoroughly understand the relationship between them.

The relationship between the two fields of environmentalism and religion has been widely debated for several decades by a number of scholars. Lynn White's essay, "The Historical Roots of Our Ecological Crisis" (1967), was one of the first attempts to explore this relationship. In this essay, White argued that much of the environmental problems facing Western society are due to Christian doctrines that establish human being's dominance over nature. As White (1967:197) states:

> By gradual stages a loving and all-powerful God had created light and darkness, the heavenly bodies, and earth and all its plants, animals, birds, and fishes. Finally, God had created Adam and, as an afterthought, Eve to keep man from being lonely. Man named all the animals, thus establishing his dominance over them. God planned all of this explicitly for man's benefit and rule: no item in the physical creation had any purpose save to serve man's purposes. And, although man's body is made of clay, he is not simply part of nature: he is made in God's image.

Not only did White identify Western Christianity's theology as a probable cause for the environmental crisis at hand, he also describes the religions of Asia as "more congenial towards the environment" (James 2000:499). Over the past several years, Leslie E. Sponsel has played a pivotal role in the spiritual ecology movement with the publication of her book *Spiritual Ecology: A Quiet Revolution* (2012). Her argument is simple: in order to combat environmental problems, we must consider religion as a part of human beings' everyday lives, it may contain viable solutions to the global environmental crisis.

Another work that underscored the important role of religion in environmental activism is Bronislaw Szerszynski's and Emma Tomalin's (2004) "Enchantment and Its Uses: Religion and Spirituality in Environmental Direct Action." In this piece they argue (2004: 199) that "activists routinely draw on cultural resources in order to give meaning to their values, identities and actions in forms that are –sometimes implicitly, sometimes explicitly- religious in nature." Generally, for societies that are trying to combat pollution and other environmental harms, motivations for environmental activism are typically thought to be secular in nature. Secular motivation may invoke a sense of responsibility, amongst activist, to protect their surroundings. In reality the underlying "moods and motivations" (Geertz 1993:89) may be propagated by the activist's sense of connectedness to, or divinity found in, the environment. These motivations may also be encouraged by doctrine that has been instilled in them through religion.

The field of spiritual ecology, however, has not gone without criticism. Among several scholars that have criticized the efficacy and practically of spiritual ecology in today's world is Andrew Vayda (2014) in his response to Sponsel's work. Although his criticism is geared more directly towards the broad writings of Sponsel's history of spiritual ecology, he finds the field problematic for several reasons. First, the field of spiritual ecology has been an isolated discipline that fails to work with multiple facets of any given society. It is important to understand that solving an environmental problem may require that people of multiple backgrounds work together. Vayda also argues that environmental problems have only gotten worse over the years even though the field of

spiritual ecology has been actively trying to eradicate pollution through religion (Vayda 2014:804).

While I understand that there are differing views on the efficacy of spiritual ecology, I disagree with Vayda in that this discipline could be very effective in combating environmental problems when applied correctly, and when incorporated into different disciplines. As Nelson states (1998:343): "a profound and thorough reexamination of deep structures of the various religious worldviews with a view to their environmental implications is called for." The field of spiritual ecology establishes that religion must play a role in environmentalism since many cultures around the world understand their social world strictly or in large part through religion. In 1987 the United Nations published a report entitled *Our Common Future*. In it, religion was posed as a possible solution to the environmental crisis. As Gosling (2001:3) states:

> Sustainable development requires changes in values and attitudes towards environment and development requires changes in values and attitudes towards environment and development- indeed, towards society and work at home, on farms, and in factories. The world's religions could help provide direction and motivation in forming new values that would stress individual and joint responsibility towards the environment and towards nurturing harmony between humanity and environment.

The anthropologist's role is to understand the deep and complex meanings that lie beneath cultural practices. An understanding of the current environmental crises that are occurring in India require an anthropological approach. It is important for anthropologists to work closely with local peoples and organizations that are dealing with these environmental problems in various settings. In this thesis, I argue that in contemporary

India, Hinduism plays a pivotal role in the conceptualization and understanding of environmental problems and Hinduism may offer solutions to these problems. However, both internal and external forces such as secularism, British colonialism, capitalism, and globalization, have caused Hindus to diver from religious ideologies of environmental protection and adopt a Western, "scientific," approach to environmental problems. As Dwidevi and Tiwari (1987:7) argue, over 700 hundred years of both British and Muslim occupation in India are possible factors in the weakening of the understanding of Hindu teachings about the environment.

The History of the Environmental Movement in India

In order to understand the complex role that Hinduism plays in both contemporary environmental history and awareness in India, it is necessary to first provide a brief synopsis of how India came to be aware of their environmental problems, and also the path(s) that led to environmental activism. In India, two platforms were responsible for the awareness of the environmental situation: The government and local, grassroots, activism.

At the forefront of the movement towards environmental awareness was India's government. One of the most influential political leaders in the history of India, Indira Gandhi, is arguably responsible for bringing India into the realm of environmental politics. India gained its independence from the British in 1947 after approximately 200 years of colonial rule. Since independence, India strived to be a part of the growing global community by working towards improving society and showing the world that it

could be a world super power. Indira Gandhi thrust the country into the global

community by representing India at the United Nations Conference on the Human

Environment at Stockholm in 1972. What set India apart from other countries in

attendance was its belief about why people should join this movement. While Western

nations were more concerned with ozone depletion and general global warming trends,

India put much of its focus and policy initiatives on deforestation, water resources, and

natural resource depletion. In her speech, Indira Gandhi addressed the important role that

Indian culture has played in attentiveness to the environment:

> One cannot be truly human and civilized unless one looks upon not only
> all fellow-men but all creation with the eyes of a friend. Throughout India,
> edicts carved on rocks and iron pillars are reminders that twenty-two
> centuries ago the Emperor Ashoka defined the king's duty as not merely to
> protect citizens and to punish wrong-doers but also to preserve animal life
> and forest trees (cited in Gosling 2001:11).

Another platform in which environmentalism came to the public eye within India was the

activism that occurred in various areas throughout the country. Shortly after the United

Nations Conference in Stockholm, Indira Gandhi established the Forest Ministry to

protect one of India's most precious resources, lumber. Notorious for its diverse wildlife

and large trees, the Himalayan region was a target for native and foreign logging

companies. On March 27, 1973 in the north Himalayan village of Gopeshwar, plots of

land were being auctioned off to logging contractors. When workers from the company

came to cut down the trees, the local people protested. The locals began to literally hug

the trees to avoid the lumber workers from logging (Dwidevi 2000:17). This came to be

known as the *Chipko* movement (*Chipko* means "stick to" in Hindi). This movement

eventually spread to other areas and became India's most influential environmental movement. Members of the *Chipko* movement used Hindu scripture and Gandhian ethics in order to argue that it was their job to protect all forms of life (Gosling 2001:60-61). The movement brought awareness not only to deforestation but also to water conservation, mining practices, and other industrial influences.

Both platforms invoked Hinduism as a driving force behind their activism. They aimed to show that not only is religion an important component in understanding pollution but India must return to a deeper understanding of Hindu teachings in order to heighten the Indian people's consciousness of environmental problems to find potential solutions.

Methodologies and Description of Field Sites

My trips to India were both funded by competitive research grants from Bucknell University. In 2014, I was awarded the Emerging Scholars Research Grant for Interdisciplinary Studies. Under the direction of my advisor, Dr. Edmund Searles, I submitted a proposal and was awarded the grant. In 2015, my Honors thesis advisor, Dr. Michelle Johnson, encouraged me to apply for additional funding through the Tom Greaves Fund for Research and Curricular Development (formerly the Meerwarth Undergraduate Research Fund). This fund was established by anthropology alumnus Tracy Meerwarth and is used to support undergraduate students in conducting research in the disciplines of Anthropology and Sociology. Under the direction of my advisor, I

wrote a proposal and was awarded a grant to carry out my research. Prior to both trips I received IRB approval, which allowed me to conduct participant-observation, semi-structured and structured interviews, and focus groups.

I conducted both sets of fieldwork using the same research methodology in order to collect my data. My primary method of gathering ethnographic data was participant-observation. The method of participant-observation is the most central research method for Anthropologists, as it allows them to truly understand the meaning of cultural beliefs and patterns "from the native's point of view" (Geertz 1973). Specifically, I lived with my informants and immersed myself in their everyday lives, tasks, and rituals. Harry Wolcott (2001:66) describes fieldwork as "a form of inquiry in which one immerses oneself personally in the ongoing social activities of some individual or group for the purposes of research." While in Varanasi, I spent my days at the *ghats* (the stone steps along the Ganges) of the river with my informant just as he would do even if I were not there. When living with a farmer in the hills of Naina Devi, I trekked over 2 miles every day just to reach a bus stop and followed him to work, only to return and help him dry the lentils he had harvested. In conducting participant-observation, I carried a small notebook with me at all times in which I took fieldnotes. Challenges in data collection methods are prevalent in the social sciences just as within any discipline. One such limitation was discerning times in which it was appropriate to take fieldnotes. My task as an anthropologist was twofold: first, I took part in the culture and participated in all aspects of my informant' everyday lives, when appropriate and acceptable. Second, I was engaged in a manner that would allow me to understand aspects and patterns of Indian

culture I might have otherwise taken for granted. At the same time, however, I maintained distance and kept an analytical focus in my research. Aside from living with my informants, I had countless informal conversations with neighbors, cab drivers and shopkeepers. These were an integral part of my participant-observation, and provided me with much of the knowledge that I gained about the local areas and ideologies.

In addition to the method of participant-observation, I also conducted 9 semi-structured interviews during my time in India. In asking questions, I was careful not to frame them in a manner that my informants might find insulting or that had assumptions attached to them. At the beginning of my fieldwork in 2014, I had difficulty in framing questions. For example, I once asked a priest, "Why is the Ganga [river] so polluted?" He quickly scolded me for saying such a thing about a Hindu goddess. The more experience I had in conducting interviews and initiating informal conversations, the better I became at asking questions that provoked my informants to think about Hinduism and explain their viewpoints. While conducting participant-observation I would record as much as possible into my fieldnotes journal and I would often return to elaborate on certain points that I did not have time to write down. At first I attempted to record several of the interviews I conducted. It was apparent that the recording device made my informants uncomfortable, so I put it away and opted instead to take detailed notes on the interviews.

Anthropologists frequently encounter challenges in the field but the challenges are unique when the anthropologist studies his or her own culture. I am a first generation American-born son of Indian immigrants. While I have close connections with India and visit frequently, I am only able to understand Hindi (the most commonly spoken language

in India) but do not speak it. This was a very difficult concept for some of the people I

encountered during my fieldwork to grasp. In his book, *The Art of Fieldwork,* Harry

Wolcott (2001:131) describes two different perspectives, which are prevalent throughout

the art of ethnography: "insider" and "outsider." An insider perspective is one in which

the person is a member of the society being researched and can gain some knowledge that

an outsider would not be able to obtain. An outsider would be the outsider who is not part

of the society but may recognize aspects that the insider takes for granted. The

anthropologist Kirin Narayan has addressed the challenge of "native anthropology."

Narayan (1993:671) writes that native anthropologists are assumed "to write about their

own cultures from a position of intimate affinity." In challenging this assumption, she

argues that the anthropologist is rarely either a "native" or an "outsider." She (1993:682)

continues:

> Even if one can blend into a particular social group without the quest of
> fieldwork, the very nature of researching what to other is taken-for-
> granted reality creates an uneasy distance. However, even if one starts out
> as a stranger, sympathies and ties developed through engaged coexistence
> may subsume difference within relationships of reciprocity. 'Objectivity'
> must be replaced by an involvement that is unabashedly subjective as it
> interacts with and invites other subjectivities to take a place in
> anthropological productions.

I bring up these perspectives because I fall somewhere in between them. Some of the

people I encountered treated me as if I were an Indian who had lived there for many

years, while others could not grasp the concept that I was Indian, Hindu, had all the

physical attributes of an Indian man, but could not speak Hindi. The "insider/outsider"

dichotomy ultimately shapes the data ethnographers gather in their fieldwork, but it also

affects the ways in which local people perceive (and treat) the anthropologist. Although my identity as what Lila Abu-Lughod (1991) calls a "halfie," affected the data I obtained, it also provided me with a more complete understanding of Indian culture.

Description of Field Sites

New Delhi

In the summers of 2014 and 2015, I traveled to New Delhi to conduct ethnographic fieldwork for my thesis. This was my primary field site for a number of reasons. First, I have familial ties with this city. Most of my family has lived in the New Delhi area for decades and as a child I spent a majority of my summers in the hot New Delhi air. Having relatives in New Delhi at the time of my research aided me in the process of contacting different organizations and religious leaders, as well as generally navigating the vast metropolitan area. Another reason New Delhi was advantageous for my research was the fact that Delhi is the hub of India. The government, large corporations, and many of the environmental Non-Government Organizations (NGOs) work in New Delhi in order to have direct access to lobbying abilities.

I came to know New Delhi as the "Las Vegas of South India" because of its location and dry heat. On the edge the Indian state of Uttar Pradesh, New Delhi is a bustling metropolitan area with approximately 17 million people, 82% of which are Hindu (Census 2011). My senses were overloaded just as I walked through the airport gate. Immediately, the heat hit my face; it was 90 degrees Fahrenheit at 11pm. It became

difficult to breathe not only from the smell of all the exhaust but from the amount of smog and dust that seemed to blanket the air. New Delhi is "literally in the middle of the desert," as my cousin described it. Indeed, New Delhi was essentially built in the middle of the desert and violent dust storms were frequent during my time there. The hot air essentially sucks any trace of water out of the land in or around New Delhi.

Driving through New Delhi makes it almost difficult to believe that one is in a South Asian city. Euro-American cultural influences can be seen on every street corner and every major billboard on the highway. I was constantly bombarded by signs for Dominos, Ralph Lauren, McDonalds, Armani, Coca-Cola, and any other business imaginable. Many of my informants, no matter the region they lived in, spoke about the Westernization of Indian culture. Westernization could be seen in the form of marketing and advertisements but also in popular media and social aspects of contemporary life in India. This was illustrated to me by the popularity of Bollywood films produced within the past five years. Whereas a woman and man kissing on the big screen would have been deemed inappropriate for an Indian film ten years ago, films today are not only filled with kissing, but also with female nudity and sex. For me, New Delhi seemed like a city facing a critical identity crisis: should it maintain traditional Indian ways of life or adopt a new way of life that is a mirror of the West?

Ranikhet

In the summer of 2014 during my fieldwork in New Delhi, several people that I interviewed sounded surprised that I had chosen New Delhi as a place to research

Hinduism and environmentalism in India. One priest in particular warned me that I would not discover much about Hinduism in New Delhi because, as he put it, "the people do not care for religion there." Instead, many people suggested that I conduct my research in the Northern states such as Uttarakhand and Himachal Pradesh. Several informants told me, "Hill people are very religious, very religious." As a result of this advice, I decided to conduct fieldwork in Ranikhet an area in which I also had some connections.

Ranikhet was the antithesis of everything New Delhi symbolized. Ranikhet is what people in the region call a "hill station." These hill stations are typically marshal land, meaning that they are run and maintained by the military, and are very strict in their policies. According to the 2011 Indian census, Ranikhet's population is around roughly 18,000 (Census 2011). It was about a 7-hour drive from New Delhi and I was told that the trip would be very difficult to endure. I did not think much of this warning, however, since I am someone who enjoys driving. Once outside the city limits, the road was a straight path into the newly established state of Uttarkhand. Once inside the state of Uttarakhand I began to realize why this car ride would be so difficult. Unlike roads in the United States that are built through, or over, mountains, the roads leading to Ranikhet meandered with every curve of the mountainside, gradually inclining and declining along the way. The road was just barely the width of two cars and turns were so sharp that the driver had to stop and honk his horn in order to warn others to avoid a collision. It was almost as if the road had been constructed in a way so as not to disturb the mountain's natural shape. With every bump and turn I grew queasy and attempted to keep my eyes open and enjoy the beautiful view. As we got to the peak of the first mountain, I looked

through the rear window of the car and saw that we had ascended so high up that we broke through the thick clouds of smog that covered the state. Looking out the car window I saw a dry riverbed, it looked as if water hadn't flown through it for years. My informant explained to me that the mountain regions in the north of India were notorious for damming projects that had obstructed river flow. I did not think too much of it until slowly but surely I started to see more and more dried off creeks and tributaries in between the mountains.

Naina Devi

Naina Devi is similar to Ranikhet in that it is situated within the Himalayan foothills and is just as difficult to get to. What sets Naina Devi apart is the fact that it is a religious pilgrimage sight. This area was brought to my attention by a biology professor at Bucknell, who travelled frequently to Himachal Pradesh and stayed in Naina Devi as a rest stop. Naina Devi is situated at the very peak of a mountaintop and is incredibly difficult to reach. With its population of a little over 1,000 people (Census 2011), the village was constantly flooded with devout pilgrims coming to pay homage to Naina Devi. I was fortunate to be able to stay with my informant/translator, Preetu. Not only was he a farmer that grew crops to sustain himself and his family, but he was also a part-time employee of the forest department. While Naina Devi did not offer much in terms of physical attributes, the information that I obtained from my multiple informants here were very valuable.

Varanasi

Varanasi is the most interesting of my field sites in that it blends modernity and traditional Indian values. Upon entering the city there is a billboard with a quote from Mark Twain, stating: "Varansi is older than history, older than tradition, older even than legend, and looks twice as old as all of them put together." The "real Varanasi," as one of my informants told me, is not the inner part of the city with all the malls and buildings, but rather the little streets barely shoulder-width in size, situated along the river. No matter where one goes, Vedic chants and smoke from ritual fires can be heard and seen. Lining the streets are vendors selling all types of religious merchandise from little statues of deities to water from the Ganga River. The city is considered to be the holiest in all of Hinduism, which I will explain more in Chapter 2, but it is also notorious for the water pollution in the river. I chose this site because it is a hybrid of contemporary and traditional culture and also because of its many religious rituals that are connected to the pollution of the river.

Chapter descriptions

Chapter 2 focuses on the sacredness of water and water pollution in India. Here, I present my first case study from my fieldwork, the river pollution of the Ganga River in Varanasi. Water is central to almost every Hindu ritual. In Hinduism, water is seen as a purifier and life-giving element that nourishes the body. Along with its practical uses, many bodies of water in India have deep mythologies that tell of their diving origins. As K.L. Seshagiri Rao (2000: 54) explains, "It is because of [rivers] life-giving and life-

fulfilling properties that the appellation 'mother' is bestowed on [them]." Here I focus on the Ganga River or *Ma Ganga* as local people call it. I will demonstrate that the way in which people view the Ganga is very complex and often times contested. On one hand, local people believe that the river is not polluted and that attempts to clean the Ganga are simply a way for organizations, both local and foreign, to receive more funding. On the other hand, many express concern for the polluted condition of the river. In this chapter I explore how these conflicting views shape interactions with the river. I argue that the conflict centers on the local distinction between the terms "purity" and "pollution."

In Chapter 3, I present two shorter case studies of deforestation in Himalayan region. Deforestation has been an increasing problem in India since British colonial rule. In the area of Ranikhet where I conducted my fieldwork, "the dependence of the hill people on forests was reflected in a variety of religious customs" (Gosling 2001:52). Although the people relied on trees, British commercial logging and planting of invasive species ultimately led to a vicious cycle of deforestation. What was once a region where a man had to perform a religious ceremony (known as a *puja*) to God asking for forgiveness in order to cut down a tree has now become an area in which people are fighting to stop the locals from deforesting. Deforestation in the areas of Ranikhet and Naina Devi is due mostly to valleys being flooded by dam reservoirs, but poverty is also a factor. In carrying out my research, I found that many of my informants were willing to forego traditional religious beliefs and practices for the sake of earning a little extra money. I found this to be a bit surprising since people constantly told me how important trees are to the environment, and how they should be preserved. In this chapter, I will

explore this internal conflict among the local population I worked. Furthermore, I explore the possible causes of this conflict and to what extent the local people currently view forests as sacred.

In the Conclusion, I demonstrate that in India there are very different ways in which people conceptualize both "nature" and the environmental problems of water pollution and deforestation. Although religion plays a large role in the lives of people in contemporary India, there are also other underlying factors at play, such as family, economics, and history. In my thesis, I draw from and contribute to the published literature on environmental problems in India. It is my hope that my research might aid NGOs, policy makers, and governments in better understanding the complex relationship between culture, religion, and environment in India and elsewhere. Religion may not always be observable in the everyday lives of people, but studying religion and environment together is critical because religion deeply affects all Indians, even when they are unaware or have internalized their religion as "culture." My thesis will contribute to the understanding of the importance of religion to people not only in India, but around the world. It is not enough to simply acknowledge the fact that there is an environmental crisis. It is important to truly understand and respect how individuals in specific communities both understand and are affected by this crisis; to find what it all means to them and how they feel it might be addressed. I hope that my thesis might ultimately help to create sustainable practices that also are consistent with cultural and religious beliefs.

Chapter 2: Water and Gods

Your brilliance is like the moon's light, your sacred water
is always pure; The one who takes refuge in you, will
cross all world's trouble, Maa Ganga hail to you
-    Shri Ganga Mataji ki chant

In the Hindu religion, purity is of the utmost importance in both religious rituals and everyday life. In order to maintain purity, water is used in to wash or bathe whatever is considered impure. Water has been used in every Hindu ritual that I have participated in or witnessed. Whether it is washing the flowers and betel nut to be offered to the gods or drinking the saffron water as *prasad*, water is a crucial part of being a practicing Hindu. My first experience in which I witnessed the significance of water and its vital role in Hinduism was in the winter of 2012 when I traveled to Haridwar, one of the most revered cities in Hinduism, to spread my father's ashes. My father requested to have his ashes spread into the Ganga (or Ganges) River. Haridwar was situated in the northern most region almost 6 hours away from my family's house. At the time, I could not help but wonder why we had to travel so far in order to do this. My mother wanted to go as far upstream towards the source of the Ganga so we could avoid the pollution that had accumulated in the river. She felt it would be disrespectful to my father and our ancestors to perform the ceremony in a filthy area of the river. The Ganga is the holiest river in all of Hinduism yet it has come to be seen as a symbol of moral degeneration, industrialization, and monetary corruption on the part of the government and NGOs. In this chapter, I explore the problem of "pollution", or lack thereof, of the Ganga river, and

local perspectives on the integrity of the river. After exploring these beliefs, I propose some possible solutions to the problem of water pollution in India.

In order to learn about Hindus ideas regarding water pollution, I carried out my ethnographic fieldwork in the city of Varanasi. Specifically, I focused on the ideas locals have regarding to the Ganga river and its' environmental integrity. Hindus believe that Varanasi is the holiest city and one should visit it at least once in his or her life. Whenever I asked, "Why is Varanasi so holy?" I received many different answers from almost everyone. Many people in Varanasi told me that it is so holy because many kings and sages throughout the centuries have traveled there to perform different ascetic practices and eventually obtained enlightenment to become closer to God. Another interesting reason that I heard, and which Kelly D. Alley (1998) cites in her work, is that Varanasi is the location at which the Ganga begins flowing northward toward the Himalayas, the abode of Lord Siva. One of my informants revealed to me that Varanasi is the geographic location in which the Ganga River changes her flow to head north towards the Himalayas. The Ganga did this in order to pay respect to Lord Siva who is believed to have released her onto the earth (I will address this later in the chapter). During my fieldwork in Varanasi, I was fortunate enough to experience the wonder of one of the oldest cities in India, as well as to live with a true *Banarsi*, a person who was born and raised in Varanasi. My informant's name was Mayank. Born and raised in the large village of Gangapur, he often proudly interjected into our conversations that he was a "true *Banarsi*," unlike some people who had moved into the city in order to make money. At first, Mayank was very reluctant to answer my questions or even talk about the alleged

pollution of the Ganga River. He was under the assumption that I was conducting research in the physical sciences and would return to the States only to defame the identities of the Ganga and Varanasi. I noticed his hesitation in answering my questions and explained to him the scope of my research. I told him I was in India to understand Hindus beliefs about the river and why some people outside of Varanasi consider it to be polluted. He cracked a smile and said, "Maa Ganga! Ganga is our Mother!"

Historical and Mythological Origins of the Sacredness of Water in the Creation of the Indus Valley

Water played a pivotal role in the creation of the Indus Valley civilization. The Indus Valley was settled by a group of people known as the Aryas. They were known to be survivors of a great flood that settled in the area divided by the Indus and Ganges river systems (Falk 2006:22). The early Arya people were responsible for the Sanskrit language and the eventual books of the Vedas (Gosling 2001:20). The following is a hymn from the Yajur Veda:

> Madhava, the Videgha, was at the time on the Sarasvati. Agni thence went burning along this earth towards the east; the Gotama Rahugana and Videgha Madhava followed after him as he was burning along. He burnt all these rivers. Now that which is called Sadanira flows from the northern mountain; that one he did not burn over. By Agni Vaisvaar. Nowadays, however, there are many brahmins to the east of it. At the time it was very uncultivated, very marshy, because it had not been tasted by Agni Vaisvanara. Nowadays, however, it is very much cultivated, for the brahmins have caused Agni to taste it through sacrifices. Even in late summer that rages along; so cold is it, not having been burnt over by Agni. Madhava the Videgha then said, "Where am I to abide?" 'To the east of this thy abode,' said he (*Satapatha Brahmana,* cited in Gosling 2001:20)

The above excerpt not only underscores the importance of the Sarasvati and the Sadanir

Rivers, but it also establishes the role that the rivers played in decisions of settlement. It

was not until the Brahmin priests performed the rituals that Agni "tasted it [the land]

through sacrifice." From the time of settlement, the Aryas wrote many Vedic hymns to

water as they knew how essential it was for life and cultivating land. Consider the

following Vedic verses[1]:

> The waters are propitious, the waters verily are the enhancer of power.
> These waters, truly, do support Agni and Soma. May the readily
> flowering, strong sap of the honey-drops (waters) come to me, together
> with life's breath and luster (Atharvaveda 3.13.5)
>
> Waters/friends of men/give your unfailing protection and blessing to our
> sons and grandsons; for you are the most physicians, the mothers of all
> that stands still and that moves! (Rig Veda 6.50.7)
>
> O man! May the waters from the snowy hills be peace giving to thee. May
> the spring waters bring calmness to thee. May the swift flowing waters be
> pleasant for thee. So may the rainy waters be a source of tranquility to
> thee. O man! Sweet be the waters of the pool. May the waters dug from
> the earth (i.e. of wells) be sweet, as well as those stored in tanks.
> (Atharvaveda 19.2.1-2)

The above verses about water are just a few that can be found dispersed throughout the

four books of the Vedas. For the Aryas, water was the life giving property that helped

them to establish a place to live within the Indus Valley. Beyond sustaining the land,

water also was thought to have the ability to heal in many different ways. The form of

healing used in ancient India, that is being revitalized today, is Ayurveda. Ayurvedic

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[1] Cited Dwidevi and Tiwari 1987

medicine revolves around the notion of using substances from nature in order to cure illness. Many Ayurvedic treatments involve the use of water.

Furthermore, water is stressed in importance within the Upanishads. The following verses are from *the Chandagya Upanishad* and the *Mahabharata*:

> This earth, the air, the heavens, the mountains, gods and men, domestic animals and birds, vegetables and trees, wild creatures down to worms, flies and ants, are nothing but this water under solid conditions. (*Changagya Upanishad* cited in Dwidevi and Tiwari 1987)

> The creator (Brahma) first produced water for the maintenance of life among human beings. That water enriches life and its absence destroys all creatures and plant-life (*Mahabarata, Moksa*, cited in Dwidevi and Tiwari 1987)

Water is thus an essential element that was necessary for the creation of the Earth. Some Hindu texts even go as far as to say that the world as we know it is in the navel of Vishnu who is floating on the cosmic ocean. Later texts such as the Puranas begin to point out specific bodies of water. The following verse is from the Skanda Purana:

> All rivers are holy. There are hundreds of rivers. All of them remove sins. All of them are bestowers of merit. Of all the rivers, those that fall into the sea are the most excellent. Of all those rivers [,] Ganga, Yamuna, Narmada, and Sarasvati are the most excellent rivers. Among the rivers, O eminent sages, these four are highly meritorious. (Skanda Purana cited in Haberman 2006).

While all rivers, and large bodies of water are thought to be sacred, the Hindu texts establish which ones are the most sacred. In this chapter, I am most concerned Hindu ideas of the sacredness of the Ganga River. How did it come to be a sacred entity and why is it worshipped?

Ganga's Descent to Earth

Understanding the sacred nature of the Ganga River required me to question people about the river's mythological origins. Almost all the narratives that I received from my informants were similar in that they described the story of King Sagar and his 60,000 sons.

King Sagar brought forth a horse for a Vedic sacrifice and left it on the steps of his palace until the sacrifice was to be conducted. When he returned outside he was shocked to see that the horse had disappeared. Sagar then sent his 60,000 sons to find the horse and return it to the palace in order to conduct the Vedic ritual properly. Sagar's sons searched all corners of the earth and even dug through the earth until they found the horse tied to the outside of a cave. The cave was home to an ascetic by the name of Kalipa. When the sons entered the cave Kalipa was in a deep state of meditation and was hovering above the ground. The brothers assumed that he was responsible for stealing the horse so they punished him by lighting a fire underneath the meditating sage. When Kalipa opened his eyes he was outraged and all of King Sagar's 60,000 sons were turned to ash. Sagar had one other son that he did not send to search for the horse, Asuman. Asuman searched around the world for the whereabouts of his brothers. Finally, Asuman came across the sage, Kalipa. When Asuman asked Kalipa what had happened to his brothers the sage explained that the sons had disturbed his deep meditation and he turned them to ash. Asuman became distraught at the fact that the souls of his 60,000 brothers would not be liberated. Kalipa saw Asuman's worry and explained to him that he must gather his brother's ashes and wash them with water from the Ganga River. Asuman knew this would be a difficult task because the Ganga was a goddess and resided in the heavenly abode. Asuman prayed to the goddess for the rest of his life but regardless of his strict ascetic practices, he could not get the Ganga to come down to earth. Asuman's son, Bhagiratha, followed in the steps of his father and continued to pray for the Ganga to come down. Goddess Ganga was so pleased by his deep asceticism that she began her descent to earth. Ganga descended with such force that it would have caused her to go through the earth and into the nether world. Bhagiratha then prayed to Siva to help Ganga come to earth. Siva captured her within his matted hair and kept her there for a year. Bhagiratha continued to pray and practice asceticism to honor Siva.

> Pleased by his reverence, Siva released the Ganga onto Earth rightfully
> liberating the souls of Bhagiratha's 60,000 ancestors.

This story was told to me by all the people of Varanasi with whom I spoke during my fieldwork. Every Hindu that I spoke with about the river had some understanding of the myth of King Sagar and his sons. Having this knowledge of Ganga's descent to Earth, I believe, serves a dual purpose for Hindus. First, it establishes the fact that divine intervention took place between humans and deities (Ganga and Siva), and that this intervention was indeed salvific. No matter where one goes in India, Hindus always understand the Ganga river as having qualities that purify both the living and the dead. Mayank would often describe to me how the Ganga could wash away the sins of anyone who bathed in her waters. Anyone has the ability to bathe in Ganga's waters, but this act of purification is most commonly used to liberate (*moksha*) those who have died from *samsara* (the cycle of death and rebirth). Second, this mythology illustrates that the Ganga is not just a river but rather the physical incarnation of a goddess who came down from her celestial abode. These dual purposes are important in understanding the differing ways in which people in Varanasi interact with the river. My informants in Varanasi always referred to the river as *maata ji*, *ma Ganga* (both are Hindi terms for "mother," and are used to show respect), or simply just "mother." Hindu people that frequently interacted with the river viewed her as a nurturing goddess who is also a living being. They believed that her waters have the power to remove their sins and liberate the souls of the deceased into the next life.

The Yamuna River and the Future of the Ganga

The pollution that is occurring throughout the stretches of the Ganga cannot be seen as having consequences only for those who inhabit her banks. While the people of Varanasi always spoke of the Ganga as being a single entity, without any other water source, my research lead me to David Haberman's book, *River of Love in an Age of Pollution: The Yamuna River of Northern India* (2006). Haberman illustrates how the Yamuna River, also understood to be the bodily form of a goddess, is severely polluted. The Yamuna flows past the city of New Delhi its' water has been deemed a health hazard by the government and is also seen as a "dead goddess" by some Hindus (Haberman 2006:76). Though the Yamuna is considered to be the Goddess of Love, she continues to be polluted through rapid urbanization, industrialization, heavy extraction, modern agricultural techniques, and some religious and social practices (Haberman 2006:83). During my fieldwork, no one in Varanasi ever mentioned that the Yamuna was one of the primary sources of water for the Ganga. While I did not ask questions about the Yamuna at the time because I was unaware of its role, I think this may shed light on Hindu's views of the river. I believe that my informants did not mention the river because the Ganga is thought to dilute and get rid of this pollution by coming in confluence with the Yamuna. I divulge later in this chapter about how the Ganga River has the power to rid herself of pollution, including that which is accumulated from the Yamuna. The Yamuna river passes the city of New Delhi for a stretch of 32 km (approximately 20 miles). Only 2 percent of the Yamuna flows past New Delhi, yet the river obtains 70 percent of its

pollutants from this 32 km stretch (Haberman 2006:76). By passing New Delhi, the Yamuna accumulates the waste from 500,000 different industries as well as 1,393 million liters of untreated sewage. In order for a water system, in this case the Yamuna River, to harbor life and to be considered healthy, its level of dissolved oxygen (DO) should be 4.0 milligrams per liter. The Central Pollution Control Board tested the water as it left the stretch near New Delhi and discovered that its DO was 0 (Haberman 2006:79-81). Not only should the pollution problem that is currently occurring in the Yamuna River be used as a case study towards an understanding of the possible future of a sacred river, but should be considered by scholars from multiple disciplines, who are studying water pollution of the Ganga River. According to Dr. R. C. Trivedi, a senior scientist of India's Central Pollution Control Board, "The Yamuna is the most polluted river in India, at least the five-hundred kilometer stretch from Delhi to Chambal confluence. There is no other river in India carrying this much pollution load" (cited in Haberman 2006:76). A popular highway I used to travel in and out of New Delhi while I was conducting fieldwork in 2014 was the Delhi Noida Direct (DND) Flyway, which was built over the Yamuna River. On very hot days we had to turn the air conditioning off in the car because of the horrible odor that was coming from the river water. Along several stretches of the DND were large signs that read, "Save Yamuna." When I returned to New Delhi in the summer of 2015, I noticed that these signs had all been removed. There are probably a number of reasons why the signs were no longer there, but to me this was a symbol of India's lost hope for the recovery of the Yamuna River.

Understanding Pollution in Varanasi

When I arrived in Varanasi Mayank navigated me through the old, narrow, alleyways of Varanasi. It was a never-ending maze that involved dodging piles of garbage that lay on the streets, as well as the occasional cow that refused to move for motor vehicles. We finally found our way to the large *ghats*, the stone steps that give people access to the Ganga River. I felt a sense of calmness fall over me. I was standing at one of the holiest places in all of Hinduism. My euphoria was quickly broken, however, when I began to look towards the bottom of the steps of the *ghat*. A thick layer of trash covered the water to the point where I could not even tell I was standing on the banks of a river. Many of the men around the *ghat* were spitting *betel nut*[2] into the river while they sat and conversed. As my fieldwork in Varanasi progressed, I came to learn that for the people of Varanasi, the term "pollution" has many different meanings.

Mayank took pride in the fact that he has lived in this area all his life and that someone was studying his home. He decided to take me to Gangapur, the village he lived in as a young child before he eventually moved to the city of Varanasi. All the houses were separated by kilometers of farmland. Mango trees covered a majority of the area, but the rest of the crops had just been harvested and the land was bare. We pulled up to a large plot of land and three farmers who lived in the area came to greet Mayank and me. We all took our seats in the plastic chairs as one of the farmer's sons brought us all tea. It

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[2] Also called *paan* (in Hindi), the betel nut is the nut of the Areca plant. The nut of the plant is dried and ground up into pieces that are then chewed on in a mixture of spices. It acts as a stimulant and has effects that are similar to caffeine.

was not like the typical *chai* that I had been accustomed to drinking. This tea was without

cream and had a strong taste of pepper and lemon. I broke out into a sweat as I slowly

sipped it. The reaction on my face showed the men how strong it was and one farmer

pointed at me and rubbed his stomach. Mayank told me this tea was very good for

digestion. Everyone in the focus group had their tea in a small metal cup except for one

of the farmers. He was drinking out of a red plastic cup. Later that day, Mayank told me

that this farmer's cup was different because he was not a Brahmin. The other two

farmers, Mayank, and I belonged to the Brahmin caste. The caste system, in its' most

basic form, is a social hierarchy within Hinduism (Rinehart 2004:243). Brahmins, who

are of the highest caster, must not come into contact or share items with people of lower

castes. Hindu ideas concerning ritual purity revolve around the caste system. As we

began to talk about my research, I asked them, "Is the Ganga polluted?" I was met by

looks of confusion. One of the men, a farmer and a government school teacher, answered

calmly:

> Ganga is not polluted. She is a goddess and goddesses cannot be polluted
> by humans. She takes the pollution away from us, her children. She came
> here so that we may wash sins away and be liberated. She gives water for
> the land so we can have good crops.

All of the men shook their heads in approval and even Mayank mentioned to me again

that the river is actually a goddess that came from the heavens. Like many of the farmers

throughout India, irrigation is of the utmost importance for the maintenance of crops. The

Ganga is often steered off of its' natural path in order to irrigate the local lands of

Varanasi. Varanasi is known for having fertile land and the best tasting mangos in India.

So I phrased the question differently: "Are there any environmental problems with the

river?" The farmer replied:

> Yes! I go to the river often and you can see the pipes from the city putting
> the sewage into the river, right near the *ghats* where people bathe and do
> *puja.* This makes the water very filthy. Even *puja* is sometimes bad for the
> river. When people finish they take all the flowers and pictures and throw
> them in the river. Water near the cities is dirty because of the people, but
> the water in the villages is clean because we know how to take care of it.

In carrying out this focus group, I learned about a pervasive distinction that is central to

my research. The term "pollution" is actually understood locally to mean spiritual

impurity. Mary Douglas, a renowned anthropologist and author of *Purity and Danger*

(1966), is known for her work on pollution beliefs. She (1966:44-45) states:

> There are two notable differences between our contemporary European
> ideas of defilement and those, say, of primitive cultures. One is that dirt
> avoidance for us is matter of hygiene or aesthetics and is not related to our
> religion. The second difference is that our idea of dirt is dominated by the
> knowledge of pathogenic organism…If we can abstract pathogenicity and
> hygiene from our notion of dirt, we are left with the old definition of dirt
> as matter out of place.

In the West people understand the term pollution as synonymous with Mary Douglas's

definition of "dirt as matter out of place." The farmers whom I interviewed also

understood the waste in the river to be dirt. However, the term "pollution" for them was

directly linked to the notion of spiritual impurity. Trash and other things considered to

make the river dirty were understood to be physical uncleanliness. For the farmers, purity

and impurity directly affect the Ganga's ability to spiritually cleanse people who bathe in

her and to liberate the souls of the deceased. Asking if Ganga was "polluted" was almost

akin to asking them if the Ganga could no longer liberate souls and take away sins

because there was trash in the river. This local belief held by Hindus could potentially

explain why Hindus are not bothered by the fact that many of their sacred sites are

physically unclean. In the minds of the locals, impurity and pollution are terms that are

used interchangeably but refer to the state of "moral, bodily, and cosmic states proper to

religious concerns" (Alley 1998:305). Indeed, the people of Varanasi believe that no type

of human intervention can hinder the purity of the river. This idea that Ganga "cannot be

polluted" was echoed many times by my informants. Once I differentiated between

physical uncleanliness and spiritual impurity many of the people I spoke with told me

they were concerned about the trash and other forms of physical waste in the river.

A common Hindi phrase I heard during my fieldwork was "*padhe likhe ganwar.*"

Mayank translated this phrase as "a literate man who behaves like an illiterate person."

People that fit into this category were those who did not understand the teachings of

Hinduism and continued to make the river dirty by physically polluting it. They were

literate in the sense that they could read and understand the Hindu scripture, but they did

not take lessons from the scripture and live their lives according to those lessons. This

term was also used for those people who were not "true Banarsis." A true Banarsi is

someone who downplays the material aspects of life to little value and lives their life by

worshipping Ganga. Shop keeps would only open their stores if they were in the mood to

and close early in order to perform the nightly Ganga *puja.* Even though Mayank spoke

of the people of Varanasi as downplaying the material aspects of life and being "true

Banarsis," he contradicted himself by stating that many people in Varanasi have become

"*padhe likhe ganwar*" due to their attempts to emulate Western culture and to accumulate

wealth. The accumulation of wealth, according to Mayank, was a driving factor that was

causing a disconnect between people and Hinduism. To him, religion was not about

obtaining material possessions, the benchmark of success in Western culture, therefore

many people felt that it was a waste of time. Although performed Hindu rituals, like the

Ganga *puja*, they only did so because it was a part of their upbringing and they wanted to

please their families. What they were missing was the meaning and intention behind these

rituals, the fact that these rituals underscored the sacredness of the river. Because of the

lack of knowledge the meaning behind the rituals, people considered to be *padhe likhe*

ganwar only claimed to believe the river was a goddess but actually did not believe this.

According to my informants, lack of belief in the Ganga as a Goddess led people to

disregard her integrity and physically pollute her. In other words, Hindus in Varanasi

were experiencing a state of moral degeneracy.

This state of moral degeneracy that I discovered during my fieldwork has also

been documented by Kelly D. Alley. In her research along the Dasasvamedha ghat, Alley

(1994, 1998, 2002,) shows how a state of degeneracy is viewed as a cause for physical

pollution. Particularly, Alleys' research underscores the contested understanding of the

term pollution as I found in my research. She interviewed priests, or *pandas*, along the

ghats and discovered that they believe that people are morally degenerate. Alley

(1998:313) states:

> These passages [from the *Siva Purana*] direct people to distance some
> everyday human processes such as defecation, brushing teeth, spitting, and
> washing clothes from the riverbank…For many the rule of distancing
> seems impossibly difficult to follow. On Dasasvamedha ghat, while

> pilgrims perform ablutions, others wash clothes with soap, a panda spits,
> an old woman "does latrine" on a corner of the *ghat*, and urban sewage
> flows into the river under the *ghat* floor. Gandagi [filth] surrounds the
> people seeking purification.

Verses in the *Siva Purana*, and other Hindu texts explain the manner in which people should conduct themselves around water. Alley's informants blame lack of religious authority in the area. I also found this during my own fieldwork in Varanasi. *Pandas* (Hindu priests) are given the right to conduct Vedic rituals by means of inheritance from either male or female lines (Alley 1998:303). An increasing problem, I was told, is that men from the city are dressing up and pretending to be *pandas* in order to make money. Mayank taught me that *pandas* will never ask anyone for money. Instead, they live according to the sacred scripture and only live off what is given to them out of generosity. In recent years though, moral degeneration was shown by the amount of people that were pretending to be Hindu holy men.

Many people around the world have heard Varanasi referred to as the "city of the dead." Varanasi is most notable for the influx of people who are either dead or dying, brought by their loved ones in order to be cremated. With the exception of holy saints, Hindu death rites always involve cremation of the deceased's body. Cremation of the body works to reduce the deceased back into *panca-bhuta* (the five basic elements: earth, water, fire, air and space) that the world and humans were created from. As the Rig Veda[3] states:

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[3] Cited in Dwidevi and Tiwari 1987

> The Lord, the sustainer, all being, revealed the sky. From space came
> water and from water, fire and the winds. From the mixture of the essence
> of fire and wind arose the earth. Mountains are his bones, earth his flesh,
> the ocean his blood. The sky his abdomen, air his breath, fire his heart,
> rivers his nerves. The sun and moon, which are called Agni and Soma, are
> the eyes of Brahman. The upper part of the sky is his head. The earth is his
> feet and the directions are his hand.

Every Hindu ritual evokes the Vedic god Agni in the form of fire. A priest in New Delhi I spoke with told me that fire is the only element that can never be physically or ritually unclean. Instead, it serves to purify and ward off evil that may be present during rituals. For contemporary Indians, cremation has long been a hygienic alternative to other death rituals. Since cremating rids the deceased bodies of any physical uncleanliness or illnesses that may be transmitted. This was most notable when Mayank and I drove past a Muslim mosque. When I asked him if the Muslims in Varanasi also go to the *ghats* for cremation he responded, "No! They worship the dead bodies they put in the ground. Muslims are very filthy and are one reason why there is so much trash." Although this conversation underscores the Hindu-Muslim divide that is still prevalent in India, it also reveals the differing view of death rites. Many Hindus consider the burying dead bodies to be very unclean in the physical sense because of the pathogens associated with decomposition. The act of cremation has two processes that are necessary: "removal of fetters and emergence of the soul's inhering powers" (Davis 1988:42). Davis (1988:43) outlines these two processes within Hindu cremation rituals:

> In the next rite (*gunapadan*), the guru unites the soul of the initiate
> temporarily with Paramasiva (the highest, formless state) and then, using
> mantras accompanied by fire oblations causes the divine siva-like qualities
> of the initiates soul to emerge. After the soul has recuperated its
> previously suppressed powers, the guru returns it to the initiate's body.

Thus the two main rites of initiation aim precisely at removing fetters and manifesting the soul's power.

The ultimate goal in the Hindu life course is to realize that the *atman* (soul) is *Brahman* (Hindu god of creation) (Rinehart 2004:21). Once a person realizes this, they are said to obtain *moksha*, liberation from the cycle of death and rebirth. For many people, *moksha* is not easily obtained. The reintegration of the soul into the cremated body, then, explains why people release ashes into the water. The Ganga water is known to instantly liberate anyone whose ashes have been put in her water into the ancestral world. Therefore, they will not return to the cycle of death and rebirth (*samsara*).

The Hindus I spoke with did not find the concept of releasing cremated remains into the river problematic. They did not understand it to physically or ritually hinder the Ganga River in any way. The controversy regarding cremation along the Ganga arose from media reports in the early 1980s of partially cremated bodies floating along the Ganga (Alley 1998:310). For some of the *pandas* the partially cremated bodies that float in the river represent a decline in the practice of cremation and a loss of respect for the Hindu religion (Alley 1998:310). I decided to take a boat to see all of the *ghats* from the river. My real interest was seeing the Manikarnaka *ghat*, which was the site for most of the cremations that took place in Varanasi. For decades, the Manikarnaka *ghat* had been subject to media reports of cremated bodies being thrown into the river. As the boat slowly rowed up the river, it was hard to believe that the government and NGOs were calling this river polluted. It was around 4pm and every foot of the river, from bank to bank, was covered with people. Some were doing their daily prayers while other,

especially children, were just going for an afterschool swim. The man rowing the boat

overheard Mayank and I talking about the controversy surrounding cremation along the

river and chimed in. The boatman warned me not to believe whatever I read about

cremation in the news and papers; they sensationalize things because they do not

understand that cremated bodies cannot effect Ganga. He also became very upset as the

conversation went on. The news reports and government officials who talk about the

pollution of the Ganga have hurt the business along the *ghats*. Mayank translated that the

boatman is usually very busy this time of year, but as the years have gone on he sees less

business. We got as close to the Manikarnaka *ghat* as we could without being

disrespectful. Surrounding the banks of the *ghat* were boats piled high with wood. Wood

is the material prescribed in Hindu scripture to create the funeral *pyres*[4] on which the

body is put on top of. The cremation ground was muddy and the area around the *pyre*

was white because of the ashes of the deceased and burning wood. A family was

currently cremating a loved one. One of Mayank's friends accompanied me on the boat

ride and explained that not all of the ashes from the cremated body have to be released

into the river. When enough of the deceased's body is burned, the priests take a pinch of

the ashes and throw it into the river. Only a small amount of ashes thrown into the Ganga

is necessary in order for the person's soul to obtain *moksha*. Mayank addressed the issue

of half-cremated bodies in the river before I could mention it. It is orthodox for priests to

implement a cremation tax to pay for the ritual and the wood that is used. Due to the

increased amount of people that travel here to cremate, as well as the increasing cost of

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[4] Large piles of combustible material (in this case wood) typically used in cremation.

wood for the pyres, families have been unable to afford cremation. Instead, they release

the body of their loved one into the river in hopes that they will be liberated by the

Ganga. During my fieldwork the issue of partially cremated bodies only came up once,

and for the most part it was to tell me that it is not as bad as the media portrays it to be.

Alley (1998) on the other hand experienced a different view. Her informants saw the

increasing amounts of partially cremated bodies as a sign of people's moral degeneracy.

Alley (1998:310) states:

> On the contrary, residents continue to believe that Ganga purifies the ashes
> of cremated individuals and, if need be, carries away the partially
> cremated -or even fully uncremated- bodies without being adversely
> affected. What residents of Dasasvamedha argue is that fully uncreated
> bodies in the Ganga are less dangerous than the social conditions they
> reflect. These bodies represent to them, a decline in the practice of
> cremation and therefore mark the moral degeneracy of contemporary
> society.

While the bodies are reflective of a state of moral degeneracy amongst Hindus, they still

have no adverse effects on the river. The river is thought to take care of the problem of

physical uncleanliness by itself.

The high amounts of trash in and around the Ganga could potentially be the

product of Hindu's views of the river's flow. I was fortunate enough to spend some time

with an elderly man by the name of Roa. Roa came to be one of my most revealing

informants during my stay in Varanasi. He was 93 years old and had lived in Varanasi all

his life. Roa lived in a one-bedroom apartment that was situated right along the *ghats*. I

could tell his lifestyle was very simple. There was a chair, blankets and pillows on the

ground, an old TV, and small area carved out in the wall that had some statues of various

Hindu gods[5]. When Mayank told Roa about my research of the Ganga and pollution Roa

responded:

> Even though there is garbage floating in the water and people say the
> water is dirty, Ganga is constantly flowing and taking away all the
> impurities and garbage. Every second there are thousands of gallons of
> freshwater flowing through her so it is impossible for it to be unclean.
> Every morning, I go to the river bank and drink a cup of Ganga water. If it
> is unclean, then how have I lived so long? The doctor says I am very
> healthy and it is because of the river.

The river can be physically unclean. But for the people of Varanasi, this uncleanliness is

not permanent. It is something that Ganga takes care of. For a river to be considered

living and have the purifying qualities of a goddess it is necessary that the river is

actively flowing. On several occasions I was told that the river maintains her power as a

goddess because of her active flow. Many people expressed concerns over damming

projects that had already taken place as well as potential dam projects that the

government of India was proposing. With India's recent population boom, hydroelectric

dams have been a major source to meet India's increasing energy demands. Recently, the

government had released plans to construct more dams in the Northern regions of India,

ultimately restricting the flow of the Ganga. "You cannot tame a goddess", one of the

farmers exclaimed referring to the damming projects. Even Roa opposed dams saying

that without flowing water, the river will then truly be physically and spiritually unclean.

While the concept of flowing water may seem like a trivial issue, it acts as a main player

in the relationships formed between government, NGOs, locals, and the Ganga River.

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[5] Many Hindus have areas in their houses dedicated to a Hindu god to whom they pray. This space acts as a
pseudo-temple for many worshipers. The statues are believed to contain the deity itself.

The flow of the river was seen as a quality of the Ganga that allowed her to physically

and spiritually clean herself. The monsoon season, I was told, was when Ganga floods the

land and everything is taken away from her banks. She comes down with such force to

remove all trash and impurities only to return to protecting her children. One of

Haberman's (2006) informants was quoted saying:

> The river [Ganga] will be killed by this dam. A river is living only when it
> is flowing freely in its natural course. Ganga is a goddess because like a
> mother she feeds everyone. She is always prepared to come for her
> children, but when you dam a river and change its course, you deny people
> and other beings access to their mother.

Many of Haberman's informants understood the Yamuna River to be dead or a dying

goddess due to the high amount of dams and irrigation canals that essentially restrict and

diminish the natural flow of the river. The people of Varanasi were worried about this

concept of a dying goddess occurring to their Mother. The case of the Tehri Dam was

brought to my attention by some of the locals. In 1972, the Government of Indian and the

State of Uttar Pradesh began plans to construct the Tehri Dam in order to supply

electricity to northern parts of India, as well as to irrigate land. The proposed dam would

cut off the Bhagirathi River, which was a major water source for the Ganga River. Tehri

dam, which was eventually completed in 2001: flooded 28 miles of the Bhagirathi

Valley, flooded 22 miles of the Bhilangana Valley, flooded Tehri (a city that is

historically known for producing some of Hinduisms greatest saints and poets), and

displaced around 109,000 people. Many Hindus, from the commencement of the project,

opposed the construction of the dam. Local people from all stretches of the Bhagirathi

river protested and used the mythology behind Ganga's descent (see section about

Ganga's Descent to Earth) stating that the only thing that should tame a goddess is Siva's hair.[6] Although the Ganga River itself has remained relatively unaffected from the Tehri Dam, it is a foreshadowing, for the people of Varansi, of what could potentially happen to their Mother. While damming the rivers of India is a practice that provides renewable energy, the cultural and religious cost is one that cannot be repaid. Environmentalists fight against dams in order to preserve land and to maintain ecosystems and biodiversity. The problem truly lies with the people who are interacting with the river on a daily basis and what a damming of the river could do to them. Not only do these damming projects displace thousands of villagers, they also hinder Hindu rituals and understandings of death.

Contested Understandings and Conflicted Solutions

The causes and possible solutions for the pollution (physical uncleanliness) of the Ganga River is an area of debate between government, NGOs and local peoples. The government and NGOs have attributed pollution of the river to factors such as rapid population growth, urbanization and industrialization and work to mitigate the problem through government programs. In contrast, the people of Varanasi believe that humans cannot hinder the integrity of the river but that the physical uncleanliness is a sign of moral degeneration and is something that can be solved by a return to the Hindu teachings. Intervention to mitigate the problem of water pollution from secular

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[6] In piecing together the history of the Tehri Dam I relied on James (2000) and Gosling (2001).

institutions has been largely unsuccessful and has angered some of the people of

Varanasi. Roa grew angry when I spoke of the different campaigns by the Indian

government to clean the river.

> The idea of pollution is a Western thought! There is no such thing. It is
> just a way for the government to get money and for the politicians to
> spend it. *Crores*[7] and *crores* have been allocated to supposedly clean the
> river but nothing has been done. Look! There is still trash everywhere!

It is widely known that India's political system is highly corrupt. To the people of

Varanasi, deeming the river as "polluted" and trying to create programs to clean it was

just another way in which politicians could gain access to money and eventually pocket

it. While we were driving through the outskirts that led into the center of Varanasi,

Mayank was sure to point out that there was standstill traffic due to construction. I did

not think much of it but he explained that the newly elected Prime Minister of India,

Narendra Modi, was going to visit Varanasi in the coming weeks. The government of

Varanasi was given several *lakh*[8] a few months ago in order to fix the roads and make

them look nice. With just a few days until the Minister arrived, they were scurrying to get

the roads fixed and had hired cheap labor because the politicians had already pocketed

the money. Though there was no evidence to back Mayank's claims, it did show the

distrust that people have in the government when it comes to public programs. A recent

example that illustrates government corruption and cleaning the Ganga River is the

sewage treatment plant built by the government. In 1986, Rajiv Gandhi created the Ganga

Plan Directorate (GPD) (Alley 1998:317). This directive is focused on reducing pollution

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[7] Crore is a unit of measurement that equates to roughly 10 million. It is often used for quantities of money.
At the current exchange rate 10 million rupees (India's national currency) is $150,000.
[8] Lakh is a unit of measurement that equates to a hundred thousand. One lakh is approximately $1,500.

in the Ganga and creating sewage treatment systems in cities bordering the Ganga (Alley

2002:160). The plans for these sewage treatment plants sparked interest from foreign

investors the Netherlands, France, England and Japan and approximately 2.5 billion

rupees[9] were put towards building of these treatment plants (Alley 2002:160). By 1993,

15 new sewage treatment plants had been constructed along the Ganga River. It was

revealed that developers took short cuts in construction and the pump/tanks could not

handle the sewage load (Alley 1998,2002). The GPD established sites for monitoring the

levels of Biological Oxygen Demand (BOD), Fecal Coliform Count (FCC) and pH.

While the GPD was responsible for relaying levels of pollution to the public, it was later

revealed that the GPD was "greatly exaggerating" the declining numbers (presumably to

keep money from foreign investors) (Alley 1998:319). By 1995 numbers from the GPD

showed no signs of progress and even worse, the plants were constantly being overfilled

and sewage was once again being leaked into the Ganga River (Alley 2002:190). By this

time, the people had lost their faith in the government in trying to help solve the problem.

The GPD also attempted to reduce the amount of cremated bodies that were put

into the river. In 1998, the government built an electric crematorium along the

Harishchandra *ghat* in order to prevent partial cremations. As Alley (1998:311) found in

her research, many of the *pandas* were opposed to the idea of electric cremation because

it went against Hindu tradition of wood *pyres*. My informants either scoffed or laughed

whenever I had mentioned the crematorium. One of the farmers during my focus group

said the following in regards to the crematorium, "It is such a waste of money. No one

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[9] The exchange rate in 1985 would equate 2.5 billion rupees to $192 million.

uses it. One maybe two people use it a week. And they only use it so as to avoid the crowds down by the *ghats*. Such a waste of money." An even more interesting reason for opposition came into light when I discussed the crematorium with Roa. He believed that if one were to be cremated in the crematorium, the *atman* (soul) would not truly be liberated and one could not obtain *moksha*. Mayank even shook his head in agreement. It became apparent throughout my work in Varanasi that government actions in the past several decades were not only ineffective, but they were also understood to be a sign of a corrupt and manipulative government.

In this chapter I have shown the differing conceptions of purity and pollution by local Hindus and secular institutions. I have also shown that the capacity of the river to bear pollution is a matter also contested amongst locals and secular institutions. While the government of India is understood to manipulate the problem of physical uncleanliness to gain funding, the cause of physical uncleanliness falls upon Hindus themselves. Pollution, or physical uncleanliness, of water is a serious matter that must be taken care of in order to prevent health risks. In order for change to occur, there must be multilevel reform and understanding of these differing conceptions. In Chapter 4 I will provide possible actions that can be taken in order to fight water pollution.

Chapter 3: Sacred Trees

A pond is equal to ten wells;
Ten ponds are equal to one lake;
Ten lakes are equal to one son;
And ten sons are equal to one tree

- verse from *Matsya Purana*

In the early 2000s, my uncle moved to a new area of New Delhi. He decided to move to one of the military sectors closer to his work so he could avoid New Delhi rush-hour traffic. As my family and I were driving to visit his new house, something in the middle of the road caught my attention. On one of the busiest streets in this area, in the middle of the road bisecting the right lane, was a fully-grown banyan tree. The government had actually paved the road around the tree so as to not disturb its roots. This was not just an ordinary tree; it was a sacred tree. It was early evening and dozens of people had gathered around the tree to do their daily *puja,* "a time when the devotee places himself or herself in the presence of a deity's image so that the deity can 'see' that person" (Rinehart 2004:99). The tree was covered in *haldi,*[1] *koumkoum,*[2] and dressed in an elaborate red *sari,* a traditional dress that women in India wear. At the base of the tree was a small tile compartment about three feet in height that housed the deity Siva, the destroyer. I had never witnessed a tree treated in this manner, and became curious. In this

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[1] A powder made from turmeric and used in devotional offerings and Hindu ceremonies.
[2] This bright red powder, also called vermillion, is used in Hindu ceremonies and is typically applied as a dot in the center of the forehead.

chapter, I explore the origins and history of the sacredness of trees in India, as well as contemporary views on deforestation and how it is being managed today.

I carried out my research on the problem of deforestation primarily in the areas of Ranikhet and Naina Devi. I chose these areas for two reasons. First, the high amount of biodiversity in these areas, specifically in Ranikhet, has attracted the attention of scholars from a variety of disciplines and there is a vast amount of literature addressing the area. My second reason for choosing these locations was because of their extensive history in the lumber industry. The Chipko movement, a grassroots movement of *pahades* (a Hindi term for people who live in the hills) that worked to fight against deforestation by companies, originated in these remote areas of North India and has attracted a large number of followers. I will discuss the Chipko movement more in depth later in this chapter.

Historical and Mythological Origins of the Sacredness of Trees

Unlike the mythology surrounding the origin of the Ganga, there is no single Hindu mythology that explains how trees came to be sacred. Rather, there are dozens of stories that are dispersed among the Vedas, Upanishad, Puranas, and other Hindu scriptures that give this particular significance to trees. Although there is evidence of the sacredness of trees within scripture, Haberman (2013:57) argues that although "Hindu texts such as the Puranas express much about general notions of trees, they provide little specificity with regard to the theological identification of trees, and almost nothing by

way of concrete descriptions of tree worship of sacred trees." While trees are mentioned often within Hindu scripture, there is no mention of certain rituals that must be carried out as there are with other aspects of the environment. In this section, I will give a brief overview of the progression through the different scriptural time periods and attempt to reveal how the sacredness of trees was established within Hinduism.

The sacredness of trees initially begins within the texts of the Vedas, in particular, the Rig Veda. The Vedic god Soma, most often known for his alcoholic and hallucinogenic properties, was of the utmost importance in Hindu Vedic rituals. Soma's bodily form is often referred to as a plant or the juice produced from the plant; Soma's plant and juice form are often used interchangeably within the Vedic scripture:

> The tree abode of Soma is regarded as heaven. He is the lord of that place. He is said to have been brought down from heaven by an eagle. Being the most important of herbs, Soma is said to have been born as the lord of plants. He is the lord of the wood and has generated all plants. (Sinha 39).

That Soma bears the title of "Lord of the wood" implies that he is present in all of the forestry and plant life in the world. This, I believe, is when Hindus first understood the sacredness of trees. With the increasing importance of sacrifice within the Vedic tradition, it was necessary for wood to be used to create the ritual fires. In order to do this, wood was needed and would be taken from the forest surrounding the village. The collection of wood for fires did not take place without concern from the villagers. In the Vedic time period (which spanned from 1500 BCE- 500 BCE), forests were a source of natural wealth such a wood, roots and herbs. Trees represented patience and tolerance in the Vedic world. Certain areas of the forest around the villages were designated for

different purposes. This was to ensure that the forest would be protected from overconsumption. These protected areas eventually developed into sacred groves (Prime 1992:11), which are beginning to re-immerge, which I will address later in this chapter. Wood was used to create sacrificial fires but was also important in creating the "axis mundi" (Nugteren 1955:11). For Hindus during this time period, the village represented the order of the cosmic universe and the surrounding forest represented chaos. In the direct center of the village was a wooden post or pillar to which the sacrificial animal was tied. According to Nugteren (1955:11) this post represented the priest as a "director of forces," who could bring sacred forces from God to man and vice versa. This post created a sacred center and was understood to be created from the trees outside the village. This is one possible explanation of why trees came to be known as sacred within Hinduism.

As the Vedic school of Hinduism grew, so too did the scripture supporting it. Where the Vedas were meant to show devotees the rituals, the Upanishads worked to describe the meaning of the ritual and ritual elements (Gosling 2001:24). The Upanishads, a collection over 100 books, connects human beings and all living things to each other. When I asked one of my informants about deforestation that is occurring throughout India, he responded:

> People fail to realize that we are all one. The story of creation is such:
> When Brahma created the universe he made it from the energy of the
> cosmos. Even the gods are made with the energy of the cosmos. All things
> living, including trees, are made with this energy. So when we [Hindus]
> begin to realize that we are not only one with each other, but also all living
> beings and the gods themselves, then we will see our problems go away.

I realize now that my informant summarized the principle teaching of the Upanishads: all beings are connected because of their creation from the same cosmic material. The Upanishads reveal to Hindus that *atman* (the soul and the true self) is *Brahman* (god of creation in the Hindu pantheon). As Haberman (2013:44) states, "ultimate divinity is unified and all living beings partake in the same sacred reality.". In the Upanishads, trees are specifically mentioned several times. Consider the following passages, which are from the Upanishad anthology:

> Truly man is just like a tree. His hairs are the leaves and his skin resembles the natural bark. His blood streams forth out of his skin like the sap of a tree … The flesh is comparable to wood, the sinews are like the inner bark, the bones are the inner core of the wood and the marrow resembles the pith of the tree (*Brhad-aranyaka Upanishad* 3.9.28, cited in Dwidevi and Tiwari 1987:23).

> My dear son, from this finest essence that you can't even see has come this huge banyan tree…and this finest essence constitutes the Self of this whole world (*Chandogya Upanishad* 6.12, cited in Dwidevi and Tiwari 1987:23)

> Of this great tree, if someone should strike at its root it would bleed but still live. If someone should strike at its middle, it would bleed but still live. If someone should strike at its top it would bleed but still live. Being pervaded by *atman* it continues to stand eagerly drinking in moisture and rejoicing…If the life leaves the whole, the whole dries up (*Chandogya Upanishad* 6.11.1-2, cited in Dwidevi and Tiwari 1987:24).

Throughout the Upanishads, passages like the ones above show the homology between human beings, trees and gods. Along with the interconnectedness of humans and deities, the Upanishads also establish a religious social order that make forest dwelling auspicious and a way to find peace. The Upanishads teachings tell stories of *rishis,* Hindu ascetics that renounced all of their worldly possession, who lived in the forest amongst

the trees. Because the *rishis* lived and taught from the forest, people from the village could not harm any aspect of the forest as it would also harm the *rishi* (Prime 1992:12).

The Vedas and the Upanishads created a precedent for Hindu society that viewed trees as a vital component of society, ritual, and ecology. Though many Hindus today understand Hindu mythology and tradition to be held within the Vedas, the Puranas also hold such myths and tradition. As Freda Matchett states (2003:141) "the Puranas give the myths and rituals by which their religious life is sustained." The Puranas, as opposed to the Vedas and Upanishads, contain some of the most explicit verses regarding the sacredness of trees. The following verses from the Purana illustrate the sacredness of trees[3]:

> "Those who plant trees will attain the highest position" (*Padma Purana 1.28.32*)
>
> "By planting a tree a person does not fall from heaven" (*Padma Purana 1.58.11*)
>
> "Oh! There is no other form of Vishnu on earth like this tree-form. the holy fig tree…the god in the form of the holy fig tree is most adorable" (*Padma Purana 1.58.24-25)*
>
> "One who digs a well where there is a little water lives in heaven for as many years as there are drops of water. One large reservoir of water is worth ten wells. One son is like ten reservoirs and one tree is equal to ten sons. This is my standard and I will protect the universe to safeguard it" (*Matsya Purana*)

The above excerpts are just a few of hundreds of texts that constructs trees to be sacred. In addition to these specific verses, Haberman (2013:53) identifies five trees that are thought to be "most worthy of worship." These five sacred trees are

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[3] Cited in Haberman 2013:51

called *Panchavati* in Hindi. The five trees are: *Ashvattha* (Pipal)*, vata* (Banyan)*,*

bilva (Bel)*, amala* (Myrobalan)*,* and *nimba* (neem). Although these five trees in

particular are viewed as being the most auspicious for a multitude of reasons,

other trees are also considered sacred and are worshiped. The Puranas also tell the

story of a large tree that is generous towards those who wish upon it. This tree is

known as *kalpa-vriksha or "*Wishing-Tree*."* Over time, most trees came to be

associated as somehow being connected with the *kalpa-vriksha* from the Puranas.

Nugteren (2005) argues that the wish fulfilling properties of trees is connected to

the trees roots, which seek deep into the earth and are thus in contact with

precious stones and gems.

While tree "worship" is never explicitly stated in Hindu scripture, and

there is no scriptural evidence of prescribed rituals towards trees, trees are

understood to be sacred for their connectedness to humans and gods. The various

types of Hindu scripture gave rise to an ideology of trees as sacred for a number

of economic, ecologic, and theological reasons. The most important thing to

understand in examining the doctrinal origins of the sacredness of trees is that,

there is never a separation or a dichotomy between humans and the natural world.

As Haberman (2013:23) states: "whereas the human-nonhuman divide has

characterized much modern Western thought, which insists that personhood

applies only to human beings, here we encounter an application of the concept of

personhood that includes more than human beings, extending even to trees." As I

have shown through the various verses of Hindu scripture, not only is there a lack

of dichotomy between humans and nature; killing a tree is akin to killing a human being.

Sacred Trees in Ranikhet

Uttarakhand is a fairly large state located in the Northern regions of India. Often referred to as *Devbhumi,* or "Land of the Gods," Uttarakhand is home to some of Hinduism's most auspicious temples and religious sites. Within Uttarakhand, I carried out my fieldwork in Ranikhet, a hill station within the district of Almora. Many of the hill stations in the state of Uttarakhand are controlled by the Indian military. I was fortunate enough to have one of the lieutenant generals as my informants. Lieutenant General Mohan Bandhari stood eye level to me, 6 feet 4 inches, rather large compared to the average Indian man. He had a deep booming voice that reflected his occupation as a military general giving orders and commands. His hand engulfed mine as he gave me a firm handshake and invited me into his gated property. The General lived a little further down the mountain from the head military quarters in a large ranch house. I was greeted by two black labs as I walked down his garden pathway to his open patio. The patio was at the very edge of the property and almost looked as if some of it had fallen down the mountain side. Towards the far open end, I walked across and saw the peaks of the Himalayan mountain range. The general sat me down on his patio and offered me some *chai* and biscuits, something that, in retrospect, was reminiscent of British colonial influence in this area. I sat down and saw on the coffee table a book titled *Uttarakhand: Land and People,* along with a military-issued pistol placed on top of it. General

Bhandari proceeded to give me a history of the land of Uttarakhand because, he told me, "in order to understand the people you must first know the history."

The state of Uttarakhand was known to be divided into two regions: Kumaun and Garhwal. The land was first settled in the 4th century B.C. by the Kuninda people around the region of Dehradun. Around the 5th century AD, the Naga people settled there but were still living in a unified state. The next dynasty to rule was the Katyuris but after their fall, the Garhwal region was divided into chiefdoms with separate ruling entities. While the Garhwal region continued to be ruled separately, the Kumaon kingdom was ruled peacefully by the Chand dynasty. It was not until the 18th century when Nepalese militant, Gurkhas, overthrew both the Kumoan Kingdom and the Garhwal Kingdom. During this time period, British colonization was heavily felt and the British responded to this annexation of the two territories by engaging in war. This came to be known as the Anglo-Nepalese war and eventually ended in the signing of the Treaty of Sugauli. This treaty gave parts of the Nepalese Kingdom to the British Empire, including Garhwal and Kumaon. The British established all ruling commissioners for the region of Kumaon but not Garhwal. It was not until 1969 when a commissioner for the Garhwal region was created. When India gained independence in 1947, the Indian government made Kumaon and Garhwal part of the state of Uttar Pradesh. It was not until 2000, that Uttarakhand became its own state[4].

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[4] In writing the history of Uttarakhand, I transcribed and truncated audio that I recorded during my interview with the general.

Not only did the general want me to understand the history of the people living in this region, but he also wanted me to understand their way of life and how difficult it is to live in the hill stations. Although fairly large, Ranikhet is an area that is extremely hard to travel to and even harder to live in. Once at the base of the mountain range in Uttarakhand, it is approximately a 3-hour car ride through winding roads that do not have a straight portion anywhere. The drive up will make people that are not used to the trek nauseous in an instant. As my jetlag kept me up most of the mornings, I would sit outside and watch mothers and children travel by foot to the water pumps two miles down the road to fetch fresh water for the day. Although there is running water available, only the fortunate few can afford it. Many people in the area explained to me that they struggle with poverty. Terrace farming is the most sustainable business in the area. The mountainous landscape has created an environment where terrace farming is the only viable business one can have. Other than farming, people make their living by owning or working at small restaurants, clothing and medicine stores. To illustrate how disconnected Ranikhet is from the rest of India the General brought to my attention that the nearest hospital with proper medical amenities was nearly an hour and a half away down several mountain ranges. I asked General Bhandari why the people in this area are such devout Hindus considering the large amounts of influence from other cultures over the years. He responded:

> A place which has a lot of mountain tops will give birth to two things. Firstly, there is a lot of local armies that fought here...in the most conspicuous hilltops of Uttarakhand you will find a military fort and on the other side of the hilltop you will find a temple. When you have nothing else, either you fight to survive, you have your own army, and you fight

amongst yourself and you fight against the Kumauni's and Garhwali's and you fight against the British. In this you develop a lot of faith and religious sentiments that give you strength. You find that that is why this area has the most prominent religious centers of India.

This area, until recently, had been a contested space among some of the most important surrounding kingdoms. The constant fighting created a culture in which religion was the only source of stability. Strong Hindu sentiments were deeply affected by British rule, developing into what the General referred to as "extreme superstition." Everywhere in Ranikhet, something became associated with a deity. There are 15 different local deities that cannot be found anywhere in the various books of Hindu scripture. Instead, these deities are the product of people's needs specific to the area in which they live. According to the General, this becomes problematic because many believe that the fate of the world is in the hands of god. All they have to do is pray and make sacrifices and the rest is in god's hands. When I asked him why deforestation in these hill areas was such a problem, he responded like a true Indian historian would:

V: So in this area, as long as you have lived here, have you seen environmental problems?

G: What do you mean by environmental problems?

V: Air pollution, deforestation, mining…

G. Oh! Yes! Yes! There is a big problem. The British were the first ones who started deforestation to make money. And in fact, the pine trees that are in this area were planted by the British and it has ruined the agriculture in this area. Now deforestation is a big problem. What has happened is that people are migrating to other areas to find jobs and there is no one to speak against the tree cutting.

In this hill station, as with most in Uttarkhand, fingers point towards the British and their

policies towards lumber. A number of people voiced their distaste for these pine trees that

dominated the area, which were planted by the British and used for lumber and the

secreted resin used as varnish. As Sunderlal Bahuguna (cited in Gosling 2001:54-55)

states:

> The change in tree species had a disastrous effect on local ecology and
> economy. The pressure of grazing and meeting the other requirements of
> the local communities fell upon the civil and community forests which
> disappeared in no time. Water sources dried up, erosion accelerated and
> the process of fertile soil manufacture in the forests was greatly hindered,
> because forests are acidic and rate of decomposition of pine leaf and litter
> is considerably lower than that of other species. A decline in the fertility of
> land and an increase in population resulted in further deforestation. All
> over the Himalayas hungry people have encroached upon forest land.

The pine trees that dominate the area, *pinus longifolia*, were in fact planted by British

troops because the fertile land and temperate climate were suitable for plant life to

flourish. The trees were planted by the British mainly for lumber, but also for their resin.

These pine trees secrete a sticky substance that was used as wood varnish for goods

produced by and for the British. Although very beautiful these trees have ruined the way

of life for many of the local people in the hills.

While the General gave me a good understanding of history and life in Ranikhet, I

wanted to actually experience the life in Ranikhet for myself. Another informant for my

fieldwork in Ranikhet was Ajay. He was an older man, probably in his late fifties, and

was very thin. His beard was long, thick and grey and his eyes and face were

overshadowed by his large glasses. Ajay lived a little bit further down the mountain from

Ranikhet in the area of Majkhali. The roads in this area were not paved ad did not

resemble any roads in of in the United States. They were dirt paths where previous

vehicles had driven. Ajay's house was off the main path and about a two-mile hike down

a large field. Surprisingly, he spoke very good English and I learned later on that his

well-spoken English was due to the fact that he was raised in this area where most of the

military officials spoke English. We sat down and he offered me *chai*, as it is customary.

I had to kindly refuse the offer due to the amount of chai. I had my fair share by this point

in my fieldwork. I settled for some water that was served to me in a small metal cup.

When we began to talk about deforestation in this area Ajay said he wanted to take me on

a "short walk" to see the land and one of the local temples. I agreed, despite a sprained

ankle that I sustained prior to my fieldwork. I assumed it could not be that far of a

journey. As we started to walk, I noticed that we were walking through the forest and

there was no path to travel by. This "short walk" was a hike of over 3 miles that traversed

over several large hills (I would consider them small mountains, much like one would see

in central Pennsylvania). We slowly began our ascent to the temple that was nowhere in

sight. The air was cool but thin enough to make breathing difficult for someone not

accustomed to the elevation. As I struggled to catch my breath, Ajay calmly picked a few

white flowers that were growing and put them in his brown fabric satchel. The ground

was blanketed with brown pine needles that had dried up. The grass, dirt, rock, and other

plants that were growing were not visible through the thick layer of pine needles. The

pine needles also made the journey very slippery. At times, I found myself walking on all

fours just to keep a balance on our trail that was about one foot wide. As we ascended, I

began to see the landscape of the hill station from a higher elevation. It was breathtaking.

There were two things that caught my attention. First was the immense amount of terrace

farming that was taking place. Every mountainside was covered with terrace farms that

spanned the entire face of one mountain. Ajay commented on the terrace farming:

> A lot of people in this area are poor and farm because that is their only
> skill. That is all they know how to do. The problem is that many
> companies from other countries and cities are buying land and mass-
> producing crops. These farmers try to create more terraces from the land
> but cannot keep up with the others.

Farmers in this area grow crops such as wheat, soy, lentils, mustard, and flax seed. My

informants constantly described the economics of the area to me, defining this as the

biggest problem that people in this area faced. Ajay stressed the issue of Ranikhet's

disconnect from the rest of Indian society and how the people of Ranikhet are isolated

from the rest of the world because of their location. The second thing that took me by

surprise were the pockets of bare mountain that were sporadically dispersed around the

regions. These barren areas were places where people had cut down trees for any number

of reasons. In fact, I was standing in an area where the trees had been cut. Ajay and I

were surrounded by tree stumps and even the remnants of a tree that had been burned.

We stumbled upon a pit where a fire had been built and around the fire were logs that

people were sitting on, as well as some broken beer bottles and wrappers. Ajay

exclaimed, "Some kids from the local schools wander into the hills to drink and party

sometimes."

After a little more walking we finally reached the temple. It was at the very top of the tallest hill on the journey. A pillared white archway marked the entrance to the temple. Several flights of stone stairs rose to the top but, ironically, Ajay said he does not like climbing steps. We proceeded to take the shortcut and climbed a portion on of the hill that wound around the back end of the temple. The temple was not the kind that I had been accustomed to seeing in the larger villages of India. It was a small stone hut, roughly the size of a bedroom and inside was a stone *linga*[5]. We both took our shoes off before entering the temple grounds. Footwear is known to bring dirt and impurities with it, so it is essential to remove footwear as to maintain the purity of the sacred grounds. We sat and talked about Ranikhet, religion in the area, and the temple. Ajay could not date the temple but he said it has been here for centuries. It is home to the goddess Chamu, a local deity who, after much research, I was unable to locate in Hindu scripture. Chamu is the local deity for the cows and crops. The villagers try to make it up to this temple at least once a month to make an offering but some make the journey more often. Though recent law had made it illegal for animals to be sacrificed, Ajay said that the police do not monitor sacrifices because the local temples where sacrifices occur are often situated in remote locations of the mountains. Just as Ajay and I were discussing animal sacrifice, a local farmer and his son brought a goat adorned with flowers to the temple to perform a sacrifice. People come to this temple to pray for a good yield in the year's crops, to get rid of problems associated with ancestors, and most importantly, to ensure that cattle remain healthy. On the 22nd day after a calf has been littered, the

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[5] A small stone cylinder that is meant to be the bodily form of the Hindu god Siva

farmer must take the calf up to the Chamu temple and bless it to ensure that it remains healthy and the farmer and his family may thrive from its health. Cattle are of the utmost importance to the people of Ranikhet. It is a common belief that in Hinduism cows are sacred and should not be harmed or eaten. Many Hindus uphold this belief and choose to be vegetarians or, at the very least, refrain from eating beef. Throughout my multiple bouts of fieldwork in India, I learned that there is no scriptural evidence to support that the cows should not be harmed. However, there is evidence to support that cows are sacred but can be eaten. In 2015, debate erupted in India about government officials banning the import and export of beef because of its contradiction of Hindu values. In response to this debate, Dhrubaa Mukherjee published an article in the Huffington Post, "What the Hindu Scriptures really say about Cow Worship" (Mukherjee 2015). In this article, she explains that the texts such as the Upanishads and Vedas actually condone the slaughter of cows. For example, the *Brhadaranya Upanishad* has an entire section on how to prepare beef in different ways so that Hindus may have a son who is learned in the Vedic scripture. The *Dharmasatra* states that the slaughter of an ox is permitted when visited by a Brahman priest, and should be served to the priest. During my fieldwork, I came to understand that people use Hindu scripture to support the notion of the cow being sacred, but the meaning goes much deeper than that. Hindus recognize the cow as sacred because of its life giving properties and necessity for agricultural practices. Much of Indian civilization started off thriving from agricultural practices. Cattle were necessary in order to plow and fertilize the land. In addition to the physical capabilities of the cow, it also provided the necessary nutrients for people and elements used in Vedic

rituals. My findings and understanding of cow sacredness were also written about by the

anthropologist, Marvin Harris. Harris (1978:203) argued that the cow is not to be

slaughtered and deemed sacred because it provides nourishment, in the form of milk,

yogurt, and *ghee* (clarified butter), but also because the cow can produce bulls and oxen.

Without the latter two, a farmer would have no means to live by. Ajay talked about the

importance of the cattle and how people here depend on their cattle. For many of the

people in Ranikhet and the surrounding hill areas that cannot sustain themselves on their

crops, the cow's milk provides essential nourishment for infants and the elderly. Driving

through the mountain region it was common to be stuck in traffic because a local farmer

was herding his cattle to another location. No one, including drivers, seemed to be

bothered by it because they understood how important cattle are. To my surprise, pine

trees did not just affect the economy. They also affected the cattle, as Ajay explained:

> The pine trees that were planted by the British are bad because they shed
> the needles that cover the ground. When the needles cover the ground,
> nothing can grow underneath it. None of the natural plants and trees are
> able to survive because of the pine roots. The needles cover the natural
> grass and the cows have nothing to eat. If the cow tries to eat the needles,
> it will get sick.

Not only are these invasive pine trees destroying the natural plants and trees in the area,

but they are also detrimental to cattle herding and agriculture. In an attempt to clear the

area so the cows can graze, farmers will often start fires to burn the shed pine needles.

Ultimately, these fires give rise to forest fires, which contribute to deforestation. Whereas

in the traditional Hinduism trees are known to be sacred and the abode of deities, they

have now become harmful to the way of life for the people of Ranikhet. Ajay had

mentioned that somehow the trees have been affecting the water sources in the area but he did not know how. After further research, I discovered that pine needles from the invasive trees cause the soil to acidify and effectively cause the fresh water springs to dry up (Anthwal et al. 2010:969). This was of particular consequence to the woman of Ranikhet, who are responsible for fetching water from the pumps every morning. Ajay addressed his concern, as well as the concerns of the women, that the amount they have had to travel to get water in recent years has slowly been increasing. It was ironic that the women were the ones who were being affected by the trees because this area was known for the genesis of the Chipko movement. The Chipko movement was known throughout India for its protesters (mainly locals from areas in danger of being deforested) hugging trees that were to be cut. This movement started in the hill regions of Gopeshwar, which is located in Uttar Pradesh. Village protests broke out in 1973 when the forest department had refused a plot trees for villagers but at the same time had been allocating trees for foreign commercial loggers (James 2004: 363). To prevent the loggers, the women of the village embraced (*chipko*) the trees to prevent the loggers (Gosling 2001: 58-59). The Chipko movement spread throughout the hill regions and as word spread of plots of trees being sold to commercial loggers, Chipko protesters were there to oppose the felling of the trees.

I believe there are two factors that may have led to the end of the sacredness of trees. The first reason is the influence of colonialism in the area. During the colonial era, many of the people who were employed to deforest the area were the local hill people. The lack of jobs, high poverty rate, and rise in the commercial lumber industry forced

local people to take jobs in the logging industry even though it required them to cut trees, which went against the teachings of Hinduism. The second reason I believe that the sacredness of trees has declined in Ranikhet is because of the types of trees that are in this area and what they represent. The dominant tree in this area, *pinus longifolia*, is the species planted by the British for commercial use. As I have shown, this tree has grown to be a source of trouble for many of the hill people in that it harms the cattle, kills the native species of plants and trees, and forces farmers to start forest fires. This tree is not only a burden to the people, but it is also a constant reminder of British colonialism in this area. Therefore, I believe that while Hindu theology does hold the tree to be sacred and Hindus are taught to nurture them, the trees of Ranikhet are an exception. Instead, they are now seen as a sign of the British Colonialism and its continued influence to this day.

Sacred Trees in Naina Devi

Although Naina Devi was different in some ways, it reminded me of Ranikhet. Similar to Ranikhet, Naina Devi is considered a hill station. Situated at the top of the mountains in the state of Himachal Pradesh, Naina Devi is best known for its temple dedicated to the goddess *Maa Naina Devi*, which translated from Hindi means "Mother Goddess." According to Naina Devi's temple website (Naina Devi 2016) the mythology behind the Naina Devi temple is as follows:

> According to legend, Lord Shiva's consort Sati once burnt herself alive in
> Yagna to avenge an insult to Lord Shiva. The distraught Shiva picked up
> her corpse and gyrated in his horrified dance. Then Lord Vishnu unleashed

his Chakra and cut Sati's body into fifty-one pieces to save the earth from Shiva's wrath. All the fifty-one places -where parts of Sati's body fell, became known as Shakti Peeths. It is believed that Sati's eyes fell at the place where this temple is situated. Therefore, this temple is called Naina Devi. The word Naina is synonymous with Sati's eyes. Since then, devotees started visiting this temple.

When I first asked people in Naina Devi "Why is Naina Devi sacred?" or "Why is Naina Devi holy?" most of the respondents looked puzzled and answered, "Because she is our mother. She takes care of us." I hoped that later on I would find more meaning.

I was fortunate enough to have some connections in the United States that led me to my informant in Naina Devi, Preetu. Prettu often hosted some of the biologists that researched this area and many used his guest house before going to Kulu Manali. Preetu was a very short man who reached a little bit above my elbow. He was very soft-spoken but incredibly hospitable. His hair was a bright orange. My informants in New Delhi told me often times people use *mehndi* paste to color their hair black but the darkness fades and turns orange. I met Preetu at the bus station just below the Naina Devi temple complex. He said he lived 10km (roughly 6 miles) away so I decided to walk with him as I figured it would be a good time for us to get to know each other. We walked along the only paved road that connected the lower villages to the upper half of the mountain region. This walk was just as dangerous as the one in Ranikhet. There were sections of the road that had given in and broken off only to fall down the mountain. This did not seem to bother those driving by, as drivers from both sides of the road simply took turns as to who would pass. On the very edge of the mountain was a tea stall that Preetu's friend owned and operated by himself. This stall was also a bus stop for many of the

people who frequently traveled to different parts of the mountain for work. Behind the stall were some old and broken stone steps that Preetu led me down. This was the beginning of what turned out to be a 2-mile hike down the face of the mountain. Preetu told me that he makes this walk every morning, around 4am, to get water for the house and then again around 9 am in order to catch the bus for work. As we walked down the face of the mountain, I noticed a statue hidden within the brush just off the trail. It had no discernable characteristics, but I could tell it was a statue because of the reddish clay material it was made out of and its general facial features. Prettu mentioned that it was one of the many local deities that his neighbors worship. He did not know what deity it was but he said that for decades people have prayed to it. Preetu's house was situated at the top of small hill at the base of the main mountain. It over looked the local lake. I walked toward the edge and saw all of Preetu's terraces that he and his family were responsible for. His father was on the lowest terrace with one of his oxen, plowing the soil. When we arrived at his house his 5 children (3 boys and 2 girls), wife, and parents all came to greet me.

Later on during my stay in Naina Devi I held a focus group with some teachers from a local elementary school in the mountain valley. Just as Preetu and I reached the school grounds the children were being dismissed for recess. They had never seen a person of my size, as evident from their "wows" and pointing. I greeted them and proceeded to enter the head master's office. The headmaster was a middle-aged woman, who was very interested in my research but told me that she felt as though she could not be of much help. She called a group of teachers into her office. There were several

teachers there who taught a variety of subjects: literature, geography, math, and Sanskrit. They introduced themselves and began to speak in Hindi. Preetu explained to them that while I could understand Hindi, I could not speak it, a routine conversation that became a little more embarrassing with each informant. They introduced themselves in English and the following conversation ensued:

Teacher: What [nationality] are you?

V: I am Indian.

T: Where are your parents from?

V: My mother and father were both born and raised in the South, Mummy in Aluva and Papa in Mulki.

T: You look Indian but you are not Indian.

He made his last comment with a smile and I only took it as mildly offensive before I stepped back and realized that the ability to speak Hindi is an essential component of being Indian but also identifying other Indians. This conversation underscored my relationship with these teachers as an outsider (a subject I address in the "Methods" section of Chapter 1). I understood that this would have potential effects on the information I collected.

We all sat down and I explained to them the topics I was researching and what all I had found from my fieldwork in both Ranikhet and Varanasi. They told me how fortunate I was to visit Varanasi and that it was a blessing to be able to visit the Ganga. I opened the conversation about trees and their sacredness. I asked the geography teacher, "What do trees in Naina Devi mean to you?" and he responded:

> We like them! They provide oxygen so that we may breathe. They take the pollutants out of the air so that the air is clean. Trees are home to a lot of animals. They keep the land together and they are beautiful.

While I do not question the validity of my informant's understanding of trees, I do believe that this answer may have been phrased in this manner because of my status as an outsider. The teachers associated me with Western culture, which relies on science for explanations of the environment. I believed that they framed their answers in a scientific manner as they thought it would better suit my research. This required me to ask questions that would demonstrate that I was looking for their understanding as Hindus. So I asked the question, "Do Hindus worship trees?" to which the Sanskrit teacher responded:

> We do not have to worship the trees. Every puja starts with the *swasti vachan.* In that the trees are worshiped, and all Hindus pray for their well-being. Trees are living beings just like the rest of us. They should neither be harmed nor worshiped but some Hindus will worship specific trees because they believe a deity resides in it.

The *swasti vachan* is as follows:[6]

> Swasti vachan pray for the well-being of the world and exhort that peace should prevail upon the earth and the Universe. Oh God, let your eight elements: the heavens, space, earth, water medicines, flora, Vishvay Deva and Brahma spread peace in the Universe and ensure the well-being of all.

This group of people in Naina Devi all agreed that trees do not need to be worshiped because the *swasti vachan* specifies that they should be protected on behalf of the proceeding Vedic sacrifice. But they also shed light on the importance of the parts of the tree that are used in rituals. They mentioned how common it is for leaves and flowers to

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[6] I found the *swasti vaschan* online in Hindi, and had an informant translate it for me.

be offered. When I asked why these things were offered at rituals the general consensus was that these items were "natural" and "pure." It was essential to offer to the deity things that were clean.

I learned that like Ranikhet, deforestation has become a problem in the hills of Himachal Pradesh. It was not until I conducted this focus group that Preetu revealed to me that he was a part-time worker for the Forest Ministry in Himachal Pradesh. Preetu's main job was to monitor and report cases of deforestation in the Naina Devi area. This area in particular, along with villages in the same valley, has seen a large number of people being displaced due to the damming of the Satluj River. Across Lake Gobind Sagar just north of Naina Devi is the city of Bilaspur and home of the one of the world's largest gravity dams, Bhakra Dam. The Bhakra Dam creates the reservoir of Gobind Sagar Lake. Many of focus group participants voiced their concerns over the thousands of people that were displaced from their villages because of this damming project. According to a report from the Times of India newspaper, 371 villages, 10,000 acres of agriculture, and 20,000 acres of forest were displaced due to the water reservoirs (TNN 2013). During the displacement, the government offered to rehouse many of the people who lost their land but eventually never lived up to their end of the bargain. This caused many of the villagers to settle around the areas of the reservoir. Preetu explained that this displacement played a major role in the deforestation problem of this area. Agriculturists had no land on which they could grow crops, so they began to use lumber for housing, fires, and even sold some for money.

The rhetoric surrounding trees in Naina Devi is very different from that of Ranikhet. Here, outside ruling empires seem to have had no lasting presence and invasive species were not something that was brought to attention. What is of note is that the people of Naina Devi uphold the Upanishad teachings of trees being living, animate, beings. Although my informants never explicitly described them as sacred, the actions and discussions surrounding the trees of the area reflected early Hindu understandings of the homology between humans and trees.

(Lack of) Sacred Trees

In many scholarly accounts and in the popular imagination in the west, there is a dichotomy between nature and culture. Anthropologists Phillip Descola and Gisli Palsson (1996) have contested this wide held notion for two reasons. First and foremost is that this dichotomy has a negative consequence on the relationship that humans have with their environment. By creating a dichotomy, it disconnects people and hinders the notion that there is another way of understanding our environment. The dichotomy gives rise to a second problem, as Descola and Palsson (1996) state "For many anthropologists…the shift from a dualistic to monist perspective appears to have been triggered by fieldwork among people for whom the nature-society dichotomy was utterly meaningless."

This is certainly not the case in India, where people do not understand the environment in terms of the dichotomy between nature and culture. Scripture and historical excerpts demonstrate that within Indian society this dichotomy does not come into play in any regards towards what the West considers nature. As Haberman

(2013:186) states, "trees are considered to be sentient beings; they are animate life forms endowed with feelings and consciousness. Unfortunately, however, this no longer appears to be the case. As we have seen in Ranikhet, trees are representative of the long-lasting burden that British colonialism has had on theses hill regions. They are directly related to the profit of the British at the expense of the hill people. According to Gadgil and Guha (1993:116):

> With manufacturing and commerce the dominant activities, markets
> became the focal point for organizing access to resources. This new belief-
> system that developed therefore transferred to the institution of the market
> the veneration reserved for spirits resident in the trees by foot-gatherers,
> and in an abstract God by Christian food-producers. Success and status
> were now clearly measured in terms of money, the currency of the market.

British colonialism and exploitation of a poverty-stricken area, rich with resources, were factors that contributed to the downfall of Hindu theology regarding sacred trees. While organizations and leaders have attempted to combat the long-held notion that tree felling is the only suitable source of income for this area, this idea of deforestation for money has become ingrained in most of the hill people's minds.

Naina Devi differed in that trees were viewed in a positive light because of the lack of colonial influence in the area. To some extent, my informants in Naina Devi did express a dichotomy between people and trees. Although this goes against Hindu theology, the shift to this dichotomy may be attributed to colonial influence. Many people in this area expressed concerns over work and home displacement. The lack of work has forced the locals of Naina Devi to travel into cities and other areas of the state in order to find jobs. These areas in which they move to are potentially places where colonial

influence is still heavily expressed. This influence does not have to be explicit but can instead be something as simple as how the education system has been established by the British and since independence has not changed. Since independence, India has been trying to live up to the Western societies standard of living in terms of resources, jobs, and manufactured goods. In trying to match these standards of success, India has created numerous hydroelectric dams that have displaced thousands of local villagers, and forced them to deforest in order to obtain resources, money, and shelter. Naina Devi's changing understanding of trees must be understood, at least in part, as a byproduct of colonialism.

It would be too simple and reductionist on my part to understand the decline of the sacredness of trees as a product of solely colonization. There are a multitude of factors at play that have led to the deforestation in the Northern parts of India. These other factors such as gender, family structure, poverty, and government corruption, have in turn diluted Hindu theology and forced Hindus away from the original understanding of people's relationship to the rest of the world. While these other contributing factors were not the main focal point of my research, it gives other scholars the opportunity to study the differing factors that play a role in deforestation.

Chapter 4: Conclusion

We shall continue to have a worsening ecological crisis until we reject the Christian axiom that nature has no reason for existence save to serve man.

- Lynn White Jr.

The impacts of British colonialism manifest themselves in many ways throughout contemporary India. In particular, I have shown how in Varanasi the term "pollution" is connected to the Western idea of physical uncleanliness and is a term commonly used by the Indian government and NGOs. In addition, I have shown that British colonialism altered the sacredness of trees through the planting of an invasive species that burdened to the people of Ranikhet. As Dwidevi and Tiwari (1987:90) state:

> …noble values become displaced by other beliefs which are either thrust
> upon the society or transplanted from another culture through invasion,
> then the faith of the masses in the earlier cultural tradition is shaken…the
> major deterioration in Vedic ideals occurred during the middle ages when
> followers of Islam and Christianity invaded the country and established
> their cultural and political hegemony.

India gained its' independence from the British Empire in 1947 (Singh 1973:24). What, then, has caused the continuing decline of Hindu theology as it regards to the environment? In retrospect, the answer to this question was in my informants' statements about contemporary society and the lives of Indians today. Consider the following quotes from several of my informants:

> It must be nice in the United States. No one values life here (in India). I
> feel like a number. When someone dies in the United States, people take
> time out of their schedules to remember the person and be there for the
> family. Here, no one has time. It's all about money. (Rithu, New Delhi)

> Poverty and greed are the two biggest problems in India. Too often you see people with not enough that are willing to give up what they believe in. Once they start getting what they want, then they completely forget where they came from. That is why she [Ganga] is in trouble. (Mayank, Varanasi).

> The river [Ganga] is not polluted! How can you say that? People are pollution of the world. Mankind is lacking the morality that it once had. Because of the West, greed has created the mindset of 'I would like to survive at the cost of everyone and everything else.' (Swami, New, Delhi)

The themes expressed in the above quotes were echoed by nearly all of my informants in some way. My informants spoke of money as being the cause of many problems in their society. Singh (1973:121) argues that "old traditions are not completely displaced by modernization, what follows is an accretion and transmutation of form." This idea of transmutation relates specifically to my case study of trees in Northern India. While in some parts of the country, locals have maintained long-held traditions of "worshipping" trees and considering them as sentient beings, in other parts that were more heavily influenced by the colonizers, these beliefs have been replaced by a more scientific explanation for the importance of trees. They still, however, continue to play a role within the Hindu religion as they produce items used for Hindu rituals. These ideas coincide with Singh's arguments of "general diffusion" (Singh 1973:87). General diffusion refers to the simple everyday practices adopted by Indians from the British, including things such as dress, food, new technologies, and other habits. It suggests that these aspects of the British, some of which were contradictory to Hindu theology, diffused within Indian culture and in many places were established as the norm. While British colonialism may have weakened Hindu religious traditions, factors such as

globalization and capitalism in post-independence India have intensified this. This decline of Hindu tradition was best seen in New Delhi, a metropolitan area. When I spoke to a representative from the NGO Navdanya, she responded:

> Today in India, you almost have to secularize in order to have your voice be heard by the government. We may have started out as having religious roots to our mission, but over time when we started lobbying to the government and growing, we realized that we must have a more secular agenda in order to survive here. (Minakshi, New Delhi)

Indeed, the nation of India, especially in these metropolitan areas, has become increasingly more secular. This secularization is a factor that stems from within Indian society: an internal factor. Though Hindu theology found in ancient Hindu scripture is not evoked in peoples' everyday lives, Hinduism has become part of Indian's identity. Every car, bus, cycle rickshaw, or train I saw in any part of India had some depiction of a Hindu deity accompanied by either scripture or a short blessing. In a way, demonstrates the pervasiveness of Hinduism for people in India. In a country torn by conflict between Muslim and Christians, religious identity has become a priority for many Indians. Much of the political rhetoric surrounding India in the post-independence period played with the notion of a return to a Hindu nation, or Hindustan. The return of Hindustan may have well been a possibility, but the advent and influence of a globalizing economy and free market capitalism opened new doors for Hindus, and ultimately created a shift in the role of religion in everyday life.

The job of the cultural anthropologist is not to solve or mitigate a culture's problems. Rather, it is to investigate and understand the different causes, meanings, and outcomes of a given problem or issue. The ecological crisis I have addressed here is, of

course, not unique to India. In a rapidly globalizing world, with increased industrialization, almost every country is dealing with environmental problems such as deforestation and water pollution. For this particular research project, however, I feel that it is necessary to merge cultural anthropology with applied anthropology. According to the Society for Applied Anthropology's website (2016), applied anthropology is "the investigation of the principles of human behavior and the application of these principles to contemporary issues and problems." An applied anthropological approach is appropriate because the environment crisis at hand in India and elsewhere requires immediate action. The actions that must be taken, however, cannot be uniform in every society, since not every society understands problems in the same way. In order to eliminate environmental problems, government and NGO workers must approach these problems in a manner that is consistent with the local cultural beliefs and practices.

As I showed in Chapter 2, a major conflict arose with the term "pollution", which was used by government officials and NGOs to describe the increasing amounts of trash, cremated bodies, and industrial waste deposited in the Ganga River. This was much more, however, than a simple miscommunication between institutions and local people. The people of Varanasi are aware of the increasing amounts of trash in the water, which they conceptualize as "dirt" or "matter out of place" (Douglass 1966). But the local people consider the Ganga River to be a goddess whose purity is in no way affected by this "dirt". According to my informants, although she may be "dirty," her religious purity remains uncompromised and local people consider this religious purity to be more important than physical cleanliness. Alley (1998) explains that the installation of an

electric crematorium did not help to decrease the amount of cremated bodies in the Ganga

River. Instead, the people of Varanasi believed that the crematorium "threatened to

disturb traditional Hindu practices of wood cremation" (Alley 1998:311).

Both locals and secular institutions acknowledge that the Ganga is becoming

more physically unclean. What differs between these two views are the effects and

permanence of the physical pollutants on the Ganga River. In order to mitigate the

problem of water pollution in India, several things must occur. First, people such as the

NGOs, government and secular institutions, must understand the distinction made

between "impurity" and "pollution." Once this distinction is understood, collaboration

can occur and culturally appropriate change can take place. As Alley (2000:367) states:

> Possibilities for collaboration among religious and political leaders in the
> area of environmental activism might arise if the distinction between
> purity and cleanness were used in a sensitive manner to mobilize Hindu
> sentiment. However, the boundedness of the domains of Hinduism,
> politics, and science/environmental pollution that many religious leaders
> articulate will likely act as a formidable obstacle to any kind of
> coordinated coalition building.

Furthermore, changes must be made in order to understand pollution at all levels:

government, NGO, and grassroots movements. It is the job of the government not only to

raise awareness for these environmental crises, but also to allocate money properly and

inform the people of Varanasi where the money is going. Many of my informants

complained that people invented the term "pollution" in order for government officials to

funnel money into projects to supposedly clean the Ganga. From the local point of view

however, the physical cleanliness of the river did not change and this was seen as a lack

of action and misappropriation of funds by the government. If the Indian people and the

government of India are truly concerned about the Ganga and India's water supply, then

it is essential that the government win back the trust of the people and gain a deeper

understanding of what it is that the people of Varanasi want to see changed. They must

also either clearly define or redefine the terminology that is used in articulating problems

of water pollution or find a way to connect the ideas of pollution and purity.

Non-Government Organizations (NGOs) are also in need of reform. As Gosling

(2001:172) states:

> Environmental NGOs are often more effective than governments in
> responding to environmental crises. They can mobilize grass-roots support
> and public opinion through the media, and with the global economy
> imminent, they are well placed to challenge the excesses of transnationals
> and irresponsible governments.

NGOs in India are in a relatively good position to interact with community members. In

India, these organizations can work to better the lives of the people who are being

affected by the pollution of the river. The problem arises when organizations' actions to

mitigate pollution are not coherent with local's understanding of the permanent purity of

the river. I suggest here that it is of the utmost importance for NGOs to first learn about

the culture of the people with whom they work, to hear their voices and to understand

their perspectives. Rather than implementing and lobbying for plans to clean the Ganga

that are not consistent with locals understandings, NGOs should first understand *why* the

people of Varanasi do not view pollution as a threat to the river. In the case of India,

NGOs must sit with local people and discuss the difference between the terms "impurity"

and "pollution" in order to show the locals that the purity of the Ganga is not in harm's way and that cleanup efforts are instead linked to ridding the river of the physical uncleanliness. In attempting to link the two concepts of "impurity" and "pollution" NGOs and religious officials must work together to see what Hindu scripture has to say about such problems. Scripture might be an effective way to reaffirm actions taken to clean the river.

One other level at which reform needs to occur is probably the most important: grassroots movements. Particularly, the *pandas* on the ghats of the Ganga are responsible for the physical integrity of the river. As I have illustrated in Chapter 2, much of Hindu scripture calls for the protection of water because of its life giving properties and association with the divine. This is magnified ten-fold in Varanasi where the water source is considered to be the incarnation of a goddess. *Pandas* must encourage a return to the practices of environmental protection that are found throughout the Hindu scriptures (Vedas, Upanishads, Puranas, etc.). Whereas Indians learned from the British that the environment serves human beings (Dwidevi 1987:94) Hindus must search within their own theology to (re)-realize that human beings and nature must exist in harmony.

Applied anthropology can also be useful in addressing the issue of deforestation in India. Attempts thus far have been made through the Revenue Department and rangers have begun to patrol the forests in order to prevent people from logging. In Chapter 3, I showed that there are many reasons why Hindus actually log trees, even when this provides a direct challenge to Hindu theology. When attempting to address the problem of deforestation in contemporary India, people must take into account the overlapping

factors of economy, gender, and religion and their effects on deforestation. In the case of

Ranikhet, the Indian military has taken it upon themselves to try and mitigate

deforestation. In 1982, the Indian army created the Ecological Task Force (ETF) in

response to deforestation and soil erosion caused by mining. They began the process of

afforestation, which eventually encompassed multiple battalions, one of which is located

in Ranikhet. They have been working to make sure that locals do not log trees as a way of

making quick money. The ETF has also attempted to create sacred groves. Nugteren

(2005:417) defines sacred groves as:

> Anything from a small cluster of trees with a simple shrine beneath one of
> them, to patches of forest considered sacred because they belong to an
> ashram or a temple or because a narrative connection with a god, a
> goddess, or a divine hero or heroine, to considerable stretches of relatively
> undisturbed woodland.

Although no sacred groves exist in the area of Ranikhet, they can be found in the hill

regions and are especially prevalent in South India. To create a sacred grove the ETF

takes a portion of forested land and dedicates it in the name of a god or goddess. This

causes the people, particularly the very religious hill people, to protect that portion of

land especially if they are thought to house deities. There is also a great deal of fear

associated with these sacred groves. It is believed that if a person fells a tree in these

groves he or she will receive the wrath of god.

Head of the Hindu religion have taken an even more religious approach in

response to the problem of deforestation. The Venkateswara temple, located in Tirumala-

Tirupati, Andhra Pradesh, is one of the wealthiest Hindu temples in India. In 1996, it was

estimated that the income of the temple was $36 million annually. Much of the revenue

the temple generates is from donations and the sale of *prasad*. *Prasad* is something,

usually food, which is offered to the deity. The deity is said to touch the food and then

redistributes it to the devotees. The *prasad* is said to contain the blessing of the deity

within it (Narayan 2004:301, Rinehart 2004:100, Gosling 2001:413). In recent years,

officials of the temple started to realize that the forested area around the temple complex

was becoming bare from logging. In response to India's deforestation problem, members

of the Venkateswara began to plant tree saplings along the hills of the temple complex.

Instead of giving food as *prasad,* which is the norm in most temples, the priests began

giving devotees tree saplings. The priests informed the devotees to plant the saplings in

the name of God. Alternatively, the sapling acts as a sacred memento from the temple.

From the tree the devotees will bear flowers, leaves, and fruit, which they can use for

devotion at home (Nugteren 2005: 413). Using saplings as a form of *prasad* is one way in

which heads of religious institutions can combat the problem of deforestation. Not only

do the saplings evoke a sense of protection for trees, they also serve to reestablish a

recently diminished sense of the sacredness of trees.

Much of the early years of anthropology were spent categorizing cultures into

"primitive" and "civilized" (Tylor 1871). For many years, the Hindu religion was seen as

primitive because of the animistic beliefs of water and trees. For Hindus, the lack of

dichotomy between nature and human created a world in which environmental problems

were non-existent. "Nature", as it is conceived of in the West, was homologous to

humans and treated as a life form with the utmost respect. Through colonialism, this

homology was uprooted and replaced by the culture and worldviews of the British. Furthermore, globalization and capitalism helped create an economy in which money was held to be of the utmost importance. In post-independence India, I suggest here that many aspects of colonialism that are still felt today. While India is a fairly new country, the West can learn a lot from Hinduism, and more generally Asian religions, in terms of mitigating environmental problems. The case studies I have presented here provide new ways of thinking about the relationship between people and the ways of addressing environmental crises facing the world today. Change must occur and that change will only be effective if religion and secular institutions, such as the government and NGOs, all come together in order to fully understand the problems and the most culturally appropriate ways of solving them.

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