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Above the Mukpa: The Shifting Ground of Khumbu's Sacred Geography

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Above the Mukpa¹

The shifting ground of Khumbu's sacred geography



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¹ The low-lying clouds that often fill the lower valleys of SoluKhumbu.

Abstract

The Himalayan region is suffering from global warming,² and the effects are felt at all scales, from the local to the global. Himalayan glaciers feed ten major Asian rivers, and 1.3 billion people in southern and southeast Asia reside in those river basins (Eriksson, et al. 2009:1). Global warming is melting these glaciers at a rapid rate, with retreat ranging from 10 to 60 meters per year on average, and many smaller glaciers already disappearing (Mool, Bajracharya and Shrestha 2008:1). This research is a study of local perceptions of global warming and glacial melt among the Sherpas of Khumbu, Nepal. Field research was carried out in a two and a half week trip to Khumbu, and in Kathmandu before and after the trip. The Khumbu valley is a sacred landscape, and the concepts of sacred valleys and mountains play important roles in the Sherpa Buddhist tradition and religious practice. The rapid glacial melt in the region not only endangers the water security, climate regularity, and physical stability, it also is changing the landscape considered sacred by the local inhabitants. The findings of this research suggest that Sherpa perspectives vary greatly depending on age, education level, and occupation. A large part of the variety in perspectives is due to the rise in tourism to Khumbu since the middle of the 20th century. The direct and indirect effects of the tourism industry has made the Sherpa population incredibly dynamic. Their values, perceptions, and priorities are necessarily shifting as their horizons extend beyond the nearest mountain range and the next harvest.

Acknowledgments

Firstly, I want to thank Dendi Sherpa for his incredibly generous help in getting me to Khumbu in the first place, and in providing contacts for me once there. Also, a great thank you to Pasang Tashi and Kelsang for welcoming me back from the mountains and nursing me back to health after a challenging illness. I would like to thank the many Sherpas I met along the way for their kindness and willingness to share themselves, their values, and their religious beliefs with me. Particularly the help of Phudorjee Lama Sherpa, Pemba Nuru Sherpa, and Laxman Adhikari was indispensable. They always answered my questions, no matter how many times I asked them. Also, I will never forget the kindness of Samden Ongmu Sherpa, who fed me and treated me like her own son. Although I was backpacking alone in Khumbu, I was never lonely thanks to the company of a number of other travellers and guides, who were always willing to help me even though I was not their responsibility. Special thanks to Phurba Sherpa and Tony Banks, who kept me company over the high passes of Khumbu. A huge thank you to my Tibetan teachers Mingyur la, Rinzin la, and Thupten la – the Tibetan language opened many doors for me in Khumbu, and without it my research and my experience there would have been much less rich. And of course, thank you to the SIT personnel in Kathmandu for watching my back and keeping me honest.

² I choose to use the term “global warming” in this research, despite the more acceptable bureaucratic term “climate change” being in vogue in the majority of research on the subject. My reason is simple: “climate change” is a passive term, and is also used to refer to the long-term natural shifts in climate, such as ice ages, etc. “Global warming,” though controversial for some, is an active term, and implies the anthropogenic impact on the climate. Anyone who has viewed repeat photography of Himalayan glaciers over the past 50 years cannot deny the active nature of their change.

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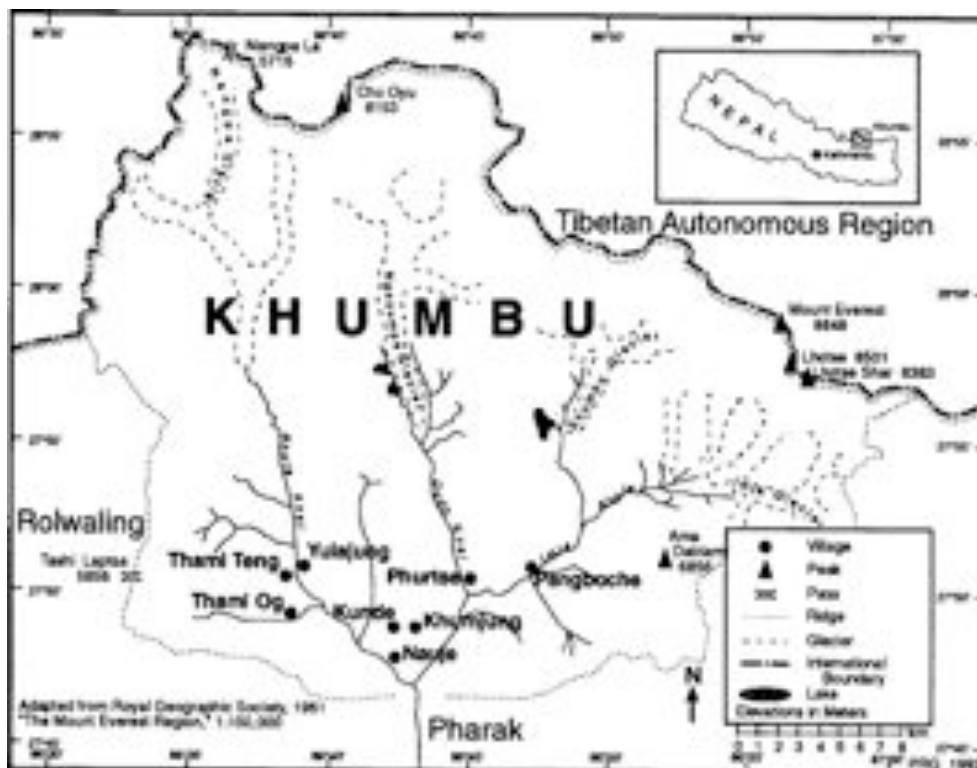


Figure 1. Geographical map of Khumbu and its location in Nepal (Stevens, *Claiming the High Ground* 1993: 24).

Introduction

Global warming in south and southeast Asia poses an immense environmental, geopolitical, and social challenge. This research does not try to solve this challenge outright, rather it is an attempt at understanding the perspectives of the indigenous Sherpas on global warming and glacial melt, as well as the localized impacts of these phenomena in the Khumbu valley.

I set out on my research under the assumption that the Sherpas of Khumbu would be aware of glacial melt and the changing mountains of their home because of the importance of the glaciers as water sources and climate regulators, but also because of their practice of a unique Buddhist mountain deity worship. The Sherpas are *Nyingmapa* (ལྷོང་མ་པ་) Buddhists – followers of the oldest school of Tibetan Buddhism, founded by Guru Rinpoche in the 8th century. Nyingmapa Buddhism has a strong tradition of hidden treasures as well as land deities, or *Yul Lha* (ཡུལ་ལྷ་). The beliefs and rituals which have formed around the *Yul Lha* in Khumbu reflect the sacred geography of the landscape and the importance of the dominant natural features to Sherpa religion and livelihood.

My findings were much more complex than a simple or single “Sherpa perspective.” The increase in tourism has monetized the Khumbu economy; a change that has made the small Sherpa community³ incredibly dynamic and diverse in their views and priorities. Sherpa ecological thought has fundamentally changed with the shift away from an agro-pastoralist and trading economy. While Sherpa religion and practicality do recognize certain glaciers (mainly the ones responsible for supplying villages with fresh water) as holy in some respect, their retreat

³ In 2006-2007 Spoon’s demographic survey found 3,000-4,000 Sherpas living in 576 households in Khumbu. Most lived in Khumbu 9-12 months per year, with the wealthier households spending winters in Kathmandu (Spoon 2011:659).

is widely viewed as a “natural” occurrence – although perspectives vary by generation, education, and livelihood. The term “global warming” is recognized by the majority of Sherpas due to the exhaustive efforts of various (I)NGOs and researchers. Its anthropogenic causes, however, are not popularly understood. In fact, global warming and its associated risks are for the most part either disregarded or viewed as foreign fabrications – malicious lies created to further research agendas or create a scare.

Sherpa Buddhism stands on the unstable ground of the changing mountains themselves. While it is not yet viewed as such, glacial melt in Khumbu is human degradation of a holy place. Not only is it changing the mountains and creating new risks such as Glacial Lake Outburst Floods (GLOFs), increased avalanche and landslide potential, dangerous climbing conditions, and water security issues; it also has the potential to cripple the booming tourism industry of Khumbu.

It is certainly not my place, nor the place of this research, to create religious concerns where there are none. I feel that it is, however, appropriate to link the localized dangers of glacial melt with the sacred geography of Khumbu, as the physical effects of the former will eventually alter the landscape and the lives of the Sherpa people – and foreign visitors – in remarkable ways.

Methodology

SoluKhumbu is a research-saturated region, as researches and academics of many different fields warned me before I embarked on my own research trip to Khumbu. In an email received before I departed Kathmandu, Barbara Brower warned “what worked in my day – presenting a 500-gram box of Brook Bond Special Blend tea, and then asking questions for hours

– are LONG over.” She added that the numerous researchers who had flocked to SoluKhumbu since Sherry Ortner first did her work in Junbesi had “pretty much tapped out the good will of most Sherpa people when it comes to sitting still to answer questions.” Similar thoughts came my way from Sherry Ortner and Stanley Stevens. That said, they all urged me to go, enjoy my time, and do the best I could.

I left Kathmandu afraid that I set out on a futile mission, one that would yield mediocre results because of my inability to spend enough time in the region, getting to know the people, understand their lives, watch their rituals. I left afraid that the Sherpas of Khumbu would see me as another Injie trekker; one to smile at, sell a room and a hot meal to, and maybe pause long enough to exchange names and niceties about the weather or the trail. During peak trekking season, I was told that the locals in Khumbu would be incredibly busy with their work of sheltering, feeding, guiding, and generally looking after the hordes of foreigners passing through the region. Warnings abounded of the difficulty of making a busy Sherpa sit still for a short interview, much less an in-depth life history.

Additionally, I had heard and read rhetoric on how Sherpas in SoluKhumbu are only concerned with money, with extracting the most possible rupees from the fat wallets of those who come to cast their gaze on the beautiful Sherpa homeland. How would I contend with this added hurdle? Not only would I have to get people to sit still long enough to listen to me, I would also have to convince them that I was there as a student of Sherpa culture, religion, and livelihoods – not a fat-walleted trekker with my eyes glued on Everest Base Camp.

After only a handful of hours in Khumbu, I realized that the “student” concept would be intrinsic to achieving my goals. A student is interested, and listens. A researcher asks questions, assumes they have most of the knowledge already, and needs only evidence, interviews, etc. The

researcher-researched relationship is, at its worst, condescending and certainly frustrating for the researched. At least, this is the dominant Sherpa perspective of researchers in SoluKhumbu. Most locals I met would much rather get on with their day, whatever it might include, than be milked for quotes and information by a condescending foreigner.

Despite the dire warnings I received from so many on the difficulties of research in SoluKhumbu, the Sherpas I encountered were almost always willing to talk if they had the time, and if they perceived real interest on my part. Because of the short duration of my time there, and the amount I would be moving, my methodology was less structured on formal or semi-formal interviews, and more focused on informal conversations and personal observation. I was able to do a handful of more structured interviews, but I found that through guided conversation with guides, lodge owners, porters, and shopkeepers I was able to build a broad and deep base of opinions. On returning to Kathmandu I followed up contacts that I had made with guides, as well as found new contacts within the Kathmandu Sherpa community to add new perspectives to my research.

Having a small understanding and ability to speak Tibetan was important to my methodology, as was my preliminary research on Sherpa Buddhism and sacred geography, as this knowledge demonstrated my very real interest in Sherpa culture, beliefs, and views to my informants. My impression is that the Sherpas of Khumbu are very used to dealing with foreigners, but assume that all foreigners visit Khumbu to gaze at the mountains and maybe the yaks. It is their business to help these people, and for the most part they cater uncomplainingly to foreign demands. As soon as I showed genuine knowledge and interest in their culture, however, and spoke the little Tibetan/Sherpa I knew with them, the great majority of Sherpas opened the doors of their homes and of their minds to me. I was invited into the kitchens separating the

Nepali and Sherpa guides, owners, and workers from the trekkers outside, given food and tea for free where selling food and tea is *the* business, and engaged in intense and serious (and plenty of joking) discussions on Sherpa Buddhism, history, culture, and village life.

Khumbu Beyul: Layered Geography

The geography of Khumbu is a subject thick with literature. Especially since the establishment of Sagarmatha National Park (SNP) in 1976, and the Park's naming as a UNESCO World Heritage Site in 1979 (Spoon 2011:659), the ecological health of the region has come under intense scrutiny from inside and outside of Nepal. The extreme beauty of the landscape has made it one of the top trekking destinations in the world, but there is more depth to the landscape of Khumbu than its mountain vistas and glacial lakes. Sherpa religious practice has developed in distinctive ways as a result of the Khumbu landscape. The statement, "environment affects the religious form and religion also develops its own religious landscape" certainly holds true in Khumbu, where religion reflects the land and creates its own unique sacred geography (Nand and Kumar 1989:114). Sherpa Buddhism is very place-based, and many of the rituals and beliefs practiced relate directly to the land. Writing in 1969, Paul Fickeler said of religious geography,

"since all religions in the course of their development have created a more or less manifest cult that is spatially and temporally perceptible in the form of magical and symbolic events, objects and behavior, religious phenomena appear in a real relationship with the earth's surface, and so can be studied geographically" (Fickeler 1969).

This research attempts to do exactly that: study the geographical reality of Khumbu's religious landscape and the changing local perceptions of that geography in relation to global warming.

Physical Geography

My eye could not hold one sight for long. Vague memories of pollution, traffic, the crush of people and buildings choked the drain in the back of my mind. Air tasted purified by a million lifetimes, snow mountains rose jagged and pristine above the folded, cracked, and mossy green lowland. Uneven paving stones lined the path. Blue-roofed structures cozied up to the Dudh Khola. Most of the buildings looked fresh, newly painted and attended to with care. Teahouses crowded the trail outside of Lukla, and thirsty porters crowded the stonewalls outside the teahouses, resting their baskets and bantering over a midday snack. Sherpas and dogs, porters hauling twice their weight, sporting flip-flops and kappa soccer pants. Despite the trekking infrastructure now built up in Khumbu, the landscape remained for the most part fresh, freeing.

Life in Khumbu exists in the folds and crevices of the Himalayan collisional zone. The land itself ranges dramatically from Lukla at 2,800m to the tip of Mt. Everest⁴ at 8,850m, but the real life of the place crowds around the moisture, the hospitable climate, and the relative protection of the valleys. Khumbu lies along the northern border of Nepal, east of Kathmandu. To the north, the Himalayan chain separates the valley from the Tibetan Autonomous Region (TAR) of China. Three of the world's ten highest mountains reside along Khumbu's northern border: Jomolangma (8,850m), Lhotse (8,501m), and Cho Oyu (8,188m). Not only does the range create a formidable physical barrier, it also has important climatic characteristics and implications. The Himalayan range traps the monsoon moisture of the summer months as it

⁴ Mount Everest is known by three names. It is best known by its original Imperial name, Everest, so named by the Surveyor General of India in 1865 after his predecessor, Sir George Everest. When the Nepalese government realized the importance of the mountain, they gave it the official name Sagarmatha, meaning "forehead of the sky," around 1965. However, because this research is primarily concerned with Sherpa sacred geography, I will refer to the mountain by its original Tibetan/Sherpa name, Jomolangma (ཇོ་མོ་གླང་མ་), shortened from the name of the goddess Jomo Miyo Langsangma believed to reside on the mountain (Sherpa and Bajracharya 2009). Most Sherpas I spoke with referred to the mountain by this name.

moves north from the Indian Ocean, making the Khumbu valley much moister than Tibet. Additionally, the mountains protect Khumbu from the cold winds and conditions of the Tibetan plateau. Smaller mountain ranges to the east and west protect Khumbu from the full force of monsoon, leaving the valley moist but not inundated with water.



Figure 2. A general overview map of Sagarmatha National Park and Buffer Zone. The main tourist trail is in the Imja Khola Valley. Monastery forests, where it is illegal to harvest firewood and sacred mountains are also shown. Map from ICIMOD.

In Khumbu, these huge white sentinels surrounded me. I felt protected by their solidity, distance, and their towering presence. The ever-present white plume blowing from the tip of Lhotse hinted at a much harsher climate, a cold wind pressing in from the sides and broken by the mountains. I looked up to the barren majesty of the peaks, and down into fertile valleys cut by glacial rivers and terraced fields.

Slopes define a mountain landscape, especially one with the violent geological past and present of Khumbu. Slope has dictated settlement and land use patterns in the valley since it was first settled by the Sherpas around 1533 (Ortner 1989:26). Only 23% of the land in the Park has slopes less than 15 degrees, greatly restricting the locational options for settlement and agriculture (Sherpa and Bajracharya 2009). The major permanent settlements of Khumbu – Phortse, Namche, Thame, Khumjung, and Dingboche, all lie in the hospitable areas where the factors of gentle slope, fertile soil, access to water, and protection from the elements come together.



Figure 3.

View from above Namche Bazaar, the capital and largest settlement of Khumbu. Namche is built into the hill slope, demonstrating innovative building techniques. Easy access to water is provided from the river flowing at the bottom of the village. Namche has been greatly affected by the tourism industry, catering to trekkers with a growing number of guesthouses gear shops, bakeries, bars, and restaurants.

The majority of land is too steeply sloping for settlement or agriculture,⁵ and has traditionally been utilized for yak and nak herding. This extreme topography has gained new economic significance, as it is the primary draw for tourists to Khumbu, changing the valuation of the land.

The SoluKhumbu landscape takes time to percolate. There is little uniformity, and pockets of moisture and life hold surprises over every pass and along every river. It is a geographically unique place. However, the physical geography that the great majority of tourists come to Khumbu to gaze upon is only part of its allure. Khumbu's sacred geography, and the people who live in it, provide much deeper and more interesting subjects.

A Disputed Beyul

Most consider the Khumbu valley to be a *beyul* (ལྷོ་ལྷོ་ལྷོ་), a hidden valley blessed by the great Tibetan tantric master Guru Rinpoche in the 8th century as a refuge for his followers in times of need (Sherpa, Through a Sherpa Window 2008). My research indicates that in general the lay people of Khumbu, the majority of religious practitioners, policy makers in the Sagarmatha National Park, and most foreign researchers consider the Khumbu valley to be one of Guru Rinpoche's beyul. However, those schooled in the *pecha* (པཇ་ཆ་), or religious texts, of the Nyingma school of Buddhism disagree. According to one of my interviews with Toloko Rinpoche, a fifth reincarnate married lama from Tolhu Gompa near the village of Pikey, SoluKhumbu is most definitely *not* a beyul. It is not named as one in the *pecha*. He mentioned that some people think it is, "but maybe they confuse with Rolwaling or Khenpalung," neighboring valleys which *are* specified as beyul in the *pecha* (Toloko 2011). In his novel The

⁵ More than 75% of the land in Sagarmatha National Park is sloped between 15 to 60 degrees (Sherpa and Bajracharya 2009).

Way to Shambhala, Edwin Bernbaum referred to a conversation with a learned lama in SoluKhumbu who remarked that “‘From the point of view of ordinary people, Solu Khumbu was a hidden valley,’ he said, ‘but strictly speaking, it was not. There’s no indication that Padma Sambhava ever hid it or put any treasures there’” (Bernbaum 1980:72).

Despite this controversy,⁶ Khumbu valley is by and large considered a beyul, and Sherpa people act on this belief. All of the Sherpa monks, lamas, and lay people (mostly guides and lodgeowners) I spoke with were quick to tell me the history of Guru Rinpoche hiding away the Khumbu valley to be discovered by the Sherpas. Lay people would often speak in general terms, of the “holiness” of the valley and its mountains, while monks and fallen monks would go into more detail, describing the places where Guru Rinpoche had meditated, how and when the valley was opened, and on (Pemba Nuru Sherpa, Toloko Rinpoche, Ngawang Dorje Sherpa 2011).

In the Nyingma school of Buddhism the beyul concept is part of a greater tradition of hidden treasures, or *terma* (གཏེར་མ་). Terma can be texts, objects, places, or knowledge hidden by Guru Rinpoche to be discovered at the correct moment in history by a treasure revealer, or *terton* (གཏེར་སེལ་མ་). Hidden lands are a concept of sacred geography with a strong tradition in eastern countries.⁷ In Tibetan legend, beyul are earthly paradises in which negative thoughts are eliminated, and enlightened followers of the dharma can achieve eternal youth. They are places with geographic reality, but are simultaneously devoid of the earthly troubles of disease, poverty, and injustice (Orofino 1991:241). Mental clarity and alleviation of suffering can also be found in beyul, but only by those wise enough to see the power of the place (Orofino 1991:239)

⁶ I use this word loosely; as I never witnessed any actual argument arise from the discrepancy, only mild disagreement.

⁷ Similarities exist between Nyingma Buddhist beyul and Chinese and Taoist “heaven-caves” (Orofino 1991).

(Bernbaum 1980:53-77). In story, a long and arduous search is usually required as initiation before discovering a hidden valley.

Beyul can only be opened by a *terton*, and according to Toloko Rinpoche, they are “very hard to see.” One can walk right through them and never realize. He told me that even those people living in them may be unaware of their power, occupying only the first of three levels (Toloko 2011). In Bernbaum’s The Way to Shambala, he relates the story of his own search for the Khenpalung beyul. The high lamas he spoke with told him that access to the three levels – the external, the internal, and the secret – depends entirely on individual level of understanding. The deeper levels are only accessible to *yogins*, who have some understanding of the true nature of existence. The secret level does not even necessarily have an earthly reality, but is rather “a hidden valley of suchness” where the *yogin* no longer differentiates between himself and the outside world (Bernbaum 1980:62) (Orofino 1991:242).



Figure 4.

Early morning in Khumbu Beyul – a view from the trail between Lobuche and Dingboche. Maybe just the external level, but beautiful nonetheless.

Standing high above the Gokyo Lakes, I wondered who existed on which level of Khumbu beyul. The majority of foreign trekkers fit Toloko Rinpoche's description perfectly: those wandering through the landscape, impressed by the beauty and peaceful aura, but unable to see beyond the outward physicality of the place. Some local Sherpas may inhabit the internal level, although I wonder how this is changing with the economic and lifestyle shift toward tourism.⁸ Now that most houses are guesthouses, that every shop carries candy and energy bars, trekking equipment and the like, I wonder if the profit motive is pulling the inhabitants out of their beyul and onto a surface level designed and dictated by foreign values, perceptions, and desires. Maybe that is what the monk speaking with Edwin Bernbaum meant when he said that "Khumbu used to be sacred" (Bernbaum 1980:56). Perhaps the layers of the beyul can serve as a way to understand the changing Sherpa relationship with their landscape.

The fact that Khumbu is considered a beyul shapes important parts of daily life, as well as much of the rhetoric of conservation activities in SNP. The Buddhist values associated with beyul play into the interests of environmental and cultural conservation, and it is not surprising that they have been emphasized. All polluting activity, or *thrip* (ཇིལ་) should be avoided in a sacred valley. Sources of *thrip* are many, and include bad smells and food, such as milk boiling over, or meat cooked outside where it can be smelled by the deities (Toloko 2011). More significantly, all fighting, killing of animals or live trees, unnecessary disturbance of the land, and negative thoughts are considered to be *thrip* (Sherpa, Through a Sherpa Window 2008:7) (Ortner, Sherpa Purity 1973:50). Literature compiled by both Khumbu natives and researchers from ICIMOD on the Park highlights the beyul status of SNP, and how the traditional spiritual beliefs associated with it fit into their own efforts (Sherpa and Bajracharya 2009:16).

⁸ In no way do I fault the Sherpas for their entrepreneurial spirit, or for their desire to make a better life with the money spent in Khumbu.

I do not believe that the use of the beyul concept on the part of those doing their best to conserve the ecology and culture of Khumbu is meant as deception, rather I think they use the widely-held belief as a powerful tool to reinforce their position with a potent religious belief system. As far as I'm concerned, perception and action are more important than religious doctrine, especially when discussing daily activity. Khumbu is perceived as a beyul, and action for the most part follows that assumption. Additionally, the push by prominent Sherpas to revive and preserve Sherpa cultural and religious beliefs, as well as language, uses the beyul concept effectively and to good purpose.

The Opening of Khumbu Beyul

The physical geography of Khumbu made it a perfect enclave for those in search of a protected land. The Sherpas⁹ originated in the Salmo Gang district of the province of Kham in eastern Tibet, and are ethnic, linguistic, cultural, and religious cousins of their Tibetan neighbors. Before they became world-renowned for their role as guides and porters in the mountaineering industry, Nepalis lumped Sherpas into the category of “Bhote” or “Bhotia,” the generic Nepali word for the highland peoples of Nepal with Tibetan origins (Furer-Haimerdorf 1964:1). According to Ortner and others, the Sherpa likely relocated to Khumbu around 1533 as a result of famine, drought, or war (Ortner 1989:26) (Fisher 1990:55). Michael Oppitz claims that the migration could have been a result of pressure from the Mongols to the north of Kham, as suggested by one of the texts he discovered (Oppitz 1968:143). The hospitable climate and

⁹ The word “Sherpa” (ཤར་པ་) was originally pronounced “*Sharwa*,” a combination of the Tibetan “shar,” for east, and “wa,” for people: literally translating to “people of the east” (Sherpa, Through a Sherpa Window 2008) and (Furer-Haimerdorf 1964). The (པ་) in Tibetan can be pronounced “pa” or “wa” when it stands alone, a likely reason for the change in pronunciation.

livability of the land explains why the Sherpas chose SoluKhumbu to settle after their roughly 1,250-mile journey (Fisher 1990:55).

The Sherpas did not migrate directly from Kham to SoluKhumbu, but settled for a few decades in the Tinkyé area west of Central Tibet before crossing over the Nangpa La pass into SoluKhumbu under pressure from western invaders.¹⁰ One of the emigrants was the student of the famous religious scholar Tertön Ratna Lingpa, who lived from 1401 to 1477 AD. By all accounts the Sherpa clans found an uninhabited area used only by hermits and *yogins* for retreat and meditation (Oppitz 1968:144).

In 1667 Lama Sangwa Dorje, the local folk hero of SoluKhumbu, founded the first Sherpa temple in Pangboche. The building of the Pangboche *Gompa* (monastery) was followed within years by the founding of the Thami and Rimijung Gompas by his two brothers Ralwa Dorje and Kamba Dorje (Pangboche monk 2011) (Ortner, *High Religion* 1989:47-50). Lama Sangwa Dorje was a Sherpa Buddhist practitioner trained in Kham, who had great magical powers which allowed him to fly around Khumbu seeking a place to build the first Sherpa gompa. When he landed at Pangboche the strength of his meditations brought the god Gumbu to him. Gumbu told Lama Sangwa Dorje that he was his tutelary deity, and that here was a good place to build a gompa. Supposedly the imprint of Lama Sangma Dorje's buttocks where he meditated is still visible today behind the main altar at Pangboche. He remains highly revered in Khumbu, and the yearly *Dumchi* (ལྷན་མཚོན་) festival is in commemoration of his death as well as Guru Rinpoche's birth (Pemba Nuru Sherpa 2011).

¹⁰ The settlement of SoluKhumbu was not a mass migration, but the movement of four small clans: the Sertawa, Minyagpa, Thimmi, and Chawa (Oppitz 1968:144).

Khumbu's Sacred Mountains

While the tradition of mountain deity worship stems from the Sherpa's Tibetan Buddhist roots, the practice became emphasized beyond its place in Tibetan culture due to the immediacy of Khumbu's mountain landscape (Funke 1969:290). Mountain deities traditionally played an important role in Sherpa religious practices, and images of the local mountain protector deities, as well as the more distant five long life sisters, or *tsering-che-nga*, can be found in every gumpa in Khumbu.

Travelling to Khumbu, I was interested in the changing place of mountain deities in Sherpa daily life. On one hand, the local mountain deities served as village protectors, and I wondered whether they had decreased in importance as Sherpas increasingly rely on tourism for their livelihoods, rather than the crops and favorable grazing conditions traditionally guaranteed by satisfied mountain gods. I thought that such an intensely place-based type of worship must certainly suffer as people became better educated, traveled farther abroad, and were exposed to different places and belief systems.

What I found was not a uniform perspective on the continuance of Sherpa mountain deity worship. Indeed, previous research has noted that many indigenous beliefs and rituals in Khumbu are being strengthened, rather than undermined, by tourism. This is attributed in part to the Sherpa's ability to profit from tourism, and a great pride in their cultural heritage and identity as Khumbu Sherpas (Stevens 1993:424) (Fisher 1990).¹¹

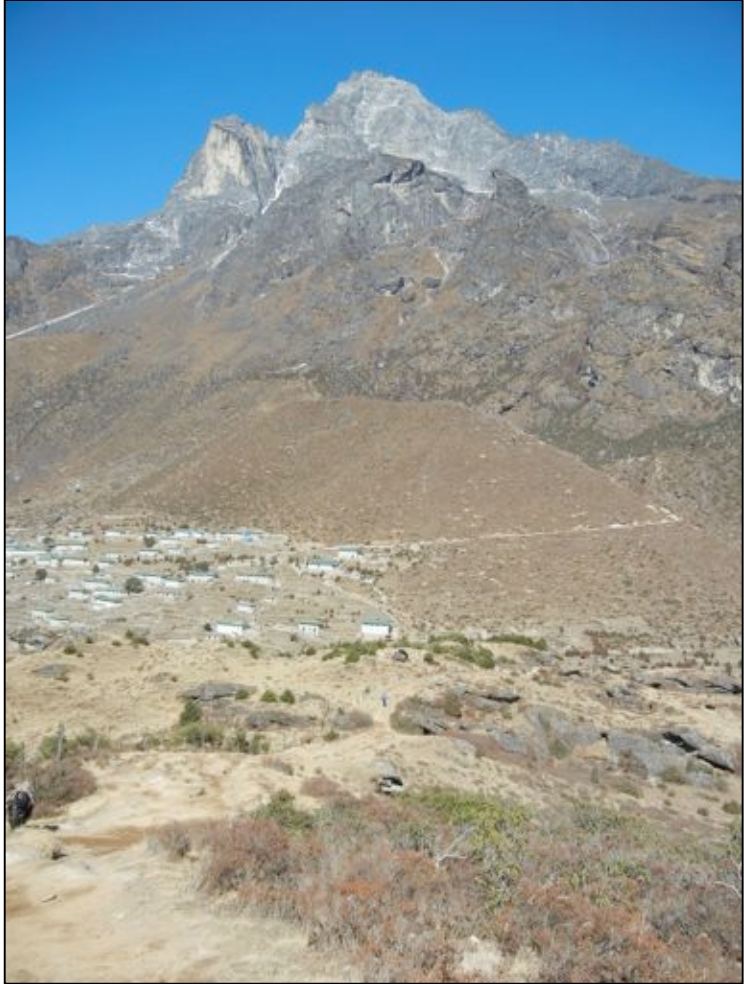
¹¹ Sherpa pride is something I encountered continuously in Khumbu. Mountain guides were proud of their high blood oxygen content compared with trekkers and foreign mountaineers, trekking guides were proud of their fitness and ability to drink less water, and not get sick. Most telling, however, was the division between those who carried loads, and those who did not. Porters in Khumbu were almost all from outside of the region. Sherpas did not carry loads, and those who did were looked down upon.

An example of this is the Festival of *Mani Rindup* (མ་རི་རིམ་རྒྱུད་). First introduced to SoluKhumbu by the monks of Rongphu Gumpa in Tibet in the early 20th century, it fell out of practice after the gumpa was destroyed by the Chinese in 1959. Since 2002, however, the festival has been revitalized by the nuns and monks of SoluKhumbu (with the help of the Mountain Institute and foreign funding) and now takes place each year at Tengboche Gumpa (Pasang Thondup Sherpa 2011) (Sherpa, *Through a Sherpa Window* 2008:133). My own experience at *Mani Rindup* was mixed. Tourists swamped the village of Tengboche, driving the price of a small pitched tent outside of the gumpa to three times that of a normal guest house room. At the festival itself foreigners far outnumbered Sherpas, and entrance into the gumpa courtyard where the dancing took place was an additional NPR 300. From what I saw *Mani Rindup* had become first and foremost a tourist attraction. This feeling was echoed by monks at Pema Chholing Gumpa, who were not going to Tengboche for the festival because they felt uncomfortable with the number of foreigners there (Ngawang Dorje Sherpa 2011).

“Injie *mangpo* (lots)! Today, tomorrow, no room!” Pasang Thondup Sherpa owned a lodge a few hundred meters from the gumpa. He shook his head emphatically, “here, Devuche, no rooms. Maybe Pangboche.” He seemed thrilled by this news, and surveyed his full patio and the incoming trekkers from below with a twinkle in his eye and a gap-toothed smile on his aged and wrinkled face.

Figure 4.

Khumbila from above Khumjung. The most sacred mountain in Khumbu, Khumbila rises in the center of the region. In Sherpa tradition, Guru Rinpoche placated its resident deity Khumbi-Yul-Lha in the 8th century when he meditated on the mountain slope. Since that time *Khumbi-Yul-Lha* has served as the protector of the Sherpa people and the Buddhist religion in Khumbu.



Smaller mountains looming directly over the main settlements of Khumbu, such as Khumbila (5,761m) and Tawoche (6,542m), act as local protector deities, and offerings were once made to them on a daily basis. Sherpas believe that a certain deity protects every location, and that *Khumbi-Yul-Lha*, who resides on the rocky peak of Khumbila at the center of the valley, is the main protector of the Khumbu valley (Sherpa, Through a Sherpa Window 2008:10).

Figure 5.

Right. Images of local mountain deities *Khumbi-Yul-Lha* (right) and *Tawuche* (left) in the entryway to the Pangboche Gompa. *Khumbi-Yul-Lha* is always pictured with a white complexion, riding a horse among goats. Wild yak, yeti, goats, and sheep are considered to be his *khor*, or associates (Sherpa, Through a Sherpa Window 2008:10). *Tawuche* is a snow-capped peak, and rises just to the west of Pangboche.



In the course of telling me about Sherpa Buddhism, one source remarked only that “if (the mountain god) is angry, then bad things will happen.” (Pemba Nuru Sherpa 2011). A *Rinpoche* – an enlightened teacher of Buddhist practice – from Solu told me that when the crops are not growing, landslides come, animals die, family members get sick, then the mountain gods must be prayed to because they are certainly angry. If milk boils over, bonfires are held outside and meat is cooked, or bad smells in general are created, the mountain gods will be angry, and must be appeased (Toloko Rinpoche, 2011).

“These things, the mountain gods, passed on by...oral tradition. Not by book, but by mouth, generation to generation. Since the beginning of Khumbu, when Sherpas first came here, we worshipped the mountains. Because, you know, the yaks are grazing on the sides of the mountains, the snowmelt from the mountaintops and glaciers gives us fresh water for drinking and agriculture” (Adhikari 2011).

People in Khumbu enthusiastically engaged in conversation about the mountain gods and their place in Sherpa life. Many of the guides who I spent multiple days walking and eating with grew up in small villages before tourism attained the level it is at now. They gave me lengthy descriptions of offerings their villages made to the mountain gods at large ceremonies such as *Dumchi* and *Losar*, but also whenever things were not going well, people were sick, or some sort of pollution had occurred. Some also talked about the more recent practice of making offerings and holding *pujas* – ritual ceremonies – for the mountain gods before a climbing or trekking expedition to ensure a safe journey.

“If someone is sick, the rains haven’t come, you know, we offer gifts. Then right away one hundred percent okay. Rains come, people healthy. For climbing, offer before we go, then

completely safe, no problem.” Phudorjee looked at me over his plate of *dhal bat*¹² earnestly. He was young, in his late 20s, and a well-traveled world-class ultramarathon runner from Phaphlu who had studied in Kathmandu after first attending Hillary School. He was usually a joker, and the seriousness with which he treated the subject of the mountain gods surprised me at first.

I found this attitude prevalent among Sherpa guides and lodge owners, particularly those who grew up in smaller villages. In a long interview with another guide, who was also a fallen monk from Kopan Gumpa in Boudha, I received a full story of the development of Buddhism in Khumbu, as well as a description of mountain deity worship in his village. The local protector deity of his village resided on Numbur Himal, also a holy mountain for Hindus. When I asked him if he had noticed changes in the snow and ice on the mountain he seemed perplexed, and answered,

“No, no change. I see change on Ama Dablang, on Everest, at Everest Base Camp. Base Camp is going down, I think in many years maybe we can’t go there anymore,” he looked upset at this prospect of lost business, “if the ice (on Numbur Himal) goes away it’s very bad. The glacier is a ‘holy hat,’ the rock is the ‘holy face.’ Water comes from the holy hat, because the water in the big river is very dirty, you know. So we need the water for drinking and farming. The god would have to be very angry to take away water” (Pemba Nuru Sherpa 2011).

At least in this middle generation and among elders belief in mountain deities remains strong. I also believe that the rhetoric of Sherpa cultural conservation promoted in the local school system, as well as Sherpa pride, play a role. However, the question remains whether or not this belief will begin to fade as younger generations are raised outside of villages, away from these mountains, with a more thorough western education. My research shows that this is indeed

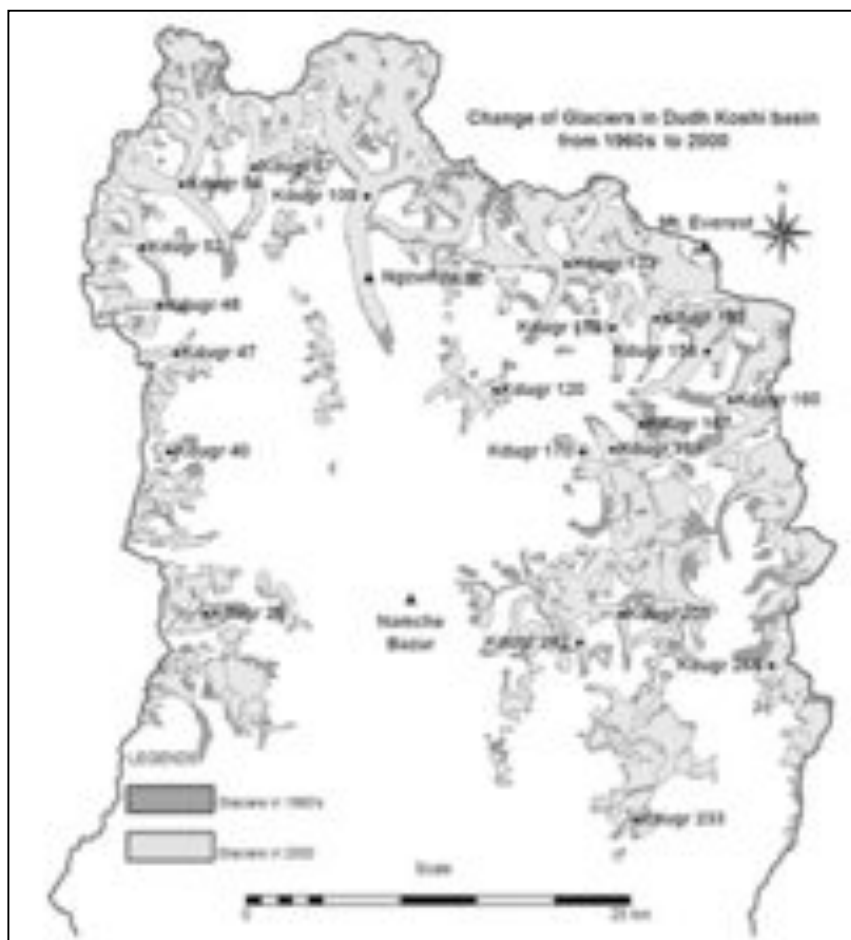
¹² The staple Nepali food, consisting of white rice, lentil curry, steamed vegetables, Nepali pickle, and chili peppers.

the case. Sherpa horizons are expanding far beyond the nearest mountain range, and while the knowledge and tradition of mountain deities may be preserved due to the great efforts of a few in the Sherpa community, the actual belief and practices ascribed to them are losing ground.

Vanishing Glaciers

“The mountains are bare. They once were covered in ice. No more.” Phudorjee Sherpa frowned in the direction of the snow mountains, then shrugged and kept walking slowly behind his trekking group (Phudorjee Sherpa 2011).

The sacred geography of Khumbu is changing. The glaciers of the entire Himalayan range are responding to the rise in global temperatures in the way ice normally reacts to being heated. Trends suggest that the rate of warming is faster in landlocked, high elevation locations. While global temperatures have risen an average of 0.74°C over the last 100 years, temperatures in Nepal rose 0.6°C per decade between 1977 and 2000 (Shrestha, et al. 1999) (Eriksson, et al.



2009:4). Warming is causing the shrinkage of ice mass vital to local and regional livelihood, as well as the increase in size and number of unstable glacial lakes throughout the Himalayan region, a trend that threatens lives and infrastructure in down-valley locations (Mool, Bajracharya and Shrestha 2008:1).

Figure 5. Changes in the glaciers of the Dudh Koshi Valley from 1960 to 2000. This map was made using a compilation of satellite imagery and aerial photography, and shows extensive retreat over the 40-year time span. (Bairacharya and Mool 2009:82)

Warming is not the only actor in the changing Himalayas; recent scientific exploration posits that black carbon aerosols (i.e. organic airborne soot) from neighboring regions of India and China is a significant driver as well (Space Daily 2010). Black carbon falling on snow and ice decreases its albedo, or ability to reflect sunlight, instead absorbing the sun's heat. Black carbon in the atmosphere also changes local heating and convection patterns in the atmosphere and is thought to be the cause of some extreme weather events around south and southeast Asia.

These changes are threatening on a regional scale and over a longer timeline in terms of water security, but they are changing the landscape of Khumbu and causing localized problems now.

In the Shadow of Ama Dablang

Ama Dablang is one of the most physically remarkable mountains in Khumbu. At a height of 6,814m it rises directly to the east of the path linking Dingboche and Chhukung. It was named for a large hanging glacier on its upper slopes, which until recently made it look like a mother wearing a charm box. In 2006, a large piece of the glacier broke off and killed a group of climbers, including three young Sherpas (Sherpa, Through a Sherpa Window 2008:78). The glacier is now all but gone, and the locals of the village of Chhukung have noticed it disappearing.



Figure 6. A rocky-faced Ama Dablang, missing its charm box. Locals often used the mountain as an example of the loss of snow and ice cover in Khumbu.

“Yes, Ama Dablang before no rocks, all covered with ice and snow. Now, always rock showing. Big glacier finished. Harder to climb, crampons bad on rock.” Tashi owned a small food/telephone/climbing gear shop on the main path through Chhukung. He worked as a climbing guide on Island Peak, Ama Dablang, and Mera Peak for more than 15 years, but decided to stop when he felt that climbing was too dangerous. His belly bulged beneath his North Face fleece now, but he still looked strong, exuding the sturdy aspect shared by many Sherpa climbing guides.

“I think it is natural, yes. Just change.” He shook his head from side to side after I asked him why he thought the mountain was changing, seemingly unworried as he rearranged packets of muesli and noodles on a back shelf.

The glacier that gave Ama Dablang its name is gone, and erosion from the mountain is streaming down drainages, depositing stone, silt, and debris into the Imja Khola.



Figure 7.

Ama Dablang and heavy erosion and siltation from its rapidly melting glacier. This picture was taken from the Imja Khola, into which the rock and silt from landslides such as these are falling.

Threatening Waters

Most people imagine glacial lakes as pristine, blue-green, ice-cold reservoirs.



Figure 8. The three lower Gokyo Lakes, taken from the side of Gokyo Ri. The blue-green lakes to the right are very old, and exist on stable geology and bedrock. To the left of the lakes is Ngojumba glacier, which trekkers have to cross to get to Gokyo. Supra-glacial lakes are evident and actively eroding on the debris-covered glacier.

Those glacial lakes have formed on stable geology, and pose little threat. On the other hand, supra-glacial lakes and those that have formed between the termini of glaciers and their end moraines are growing at the base of glaciers and on unstable geology as a direct result of ice melt. They are not pristine clear bodies of water, but are rather heavily silted, actively eroding

the glaciers above them and their own banks. These glacial lakes are not sustainable and stationary, but like the Sherpas themselves are dynamic.

Fourteen GLOFs have been recorded in Nepal in the past few decades, and many others in Tibet (ICIMOD 2011:vii). The most noteworthy recent GLOF in Khumbu was the release of Dig Tsho down the Dudh Koshi valley in 1985. Located at the base of Langmoche glacier, Dig Tsho was propelled over its terminal moraine dam by an ice avalanche, weakening it enough to completely breach the barrier. An estimated 6-10 million cubic meters of water discharged rapidly from the lake, wiping out villages and livestock in its path, as well as destroying the Namche Small Hydroelectric facility and causing more than three million dollars worth of damage (ICIMOD 2011:11). The event also wiped out a chunk of the Everest Base Camp trekking route which had to be rebuilt.

In my research, I spent time at Imja Tsho and Chhukung, the village immediately below



Figure 9. A view of Imja Glacier, which drains the east face of Lhotse to terminate in the newly formed Imja Tsho. Heavy siltation is evident in the expanding lake, and one can watch piece of the glacier slide into the lake.

the lake. Imja Tsho is one of the most threatening glacial lakes in the entire of the Himalaya. It lies at the bottom of the Imja Glacier at an elevation of 5,000m and drains through the end moraine dam to form the Imja Khola, one of the main tributaries of the Dudh Khola. Photographs taken in the 1950s by Fritz Müller, a member of the 1956 Swiss Everest expedition, show that Imja Tsho did not exist at the time. It is now over 1 square kilometer with a storage capacity of 35.5×10^6 cubic meters (ICIMOD 2011:43).

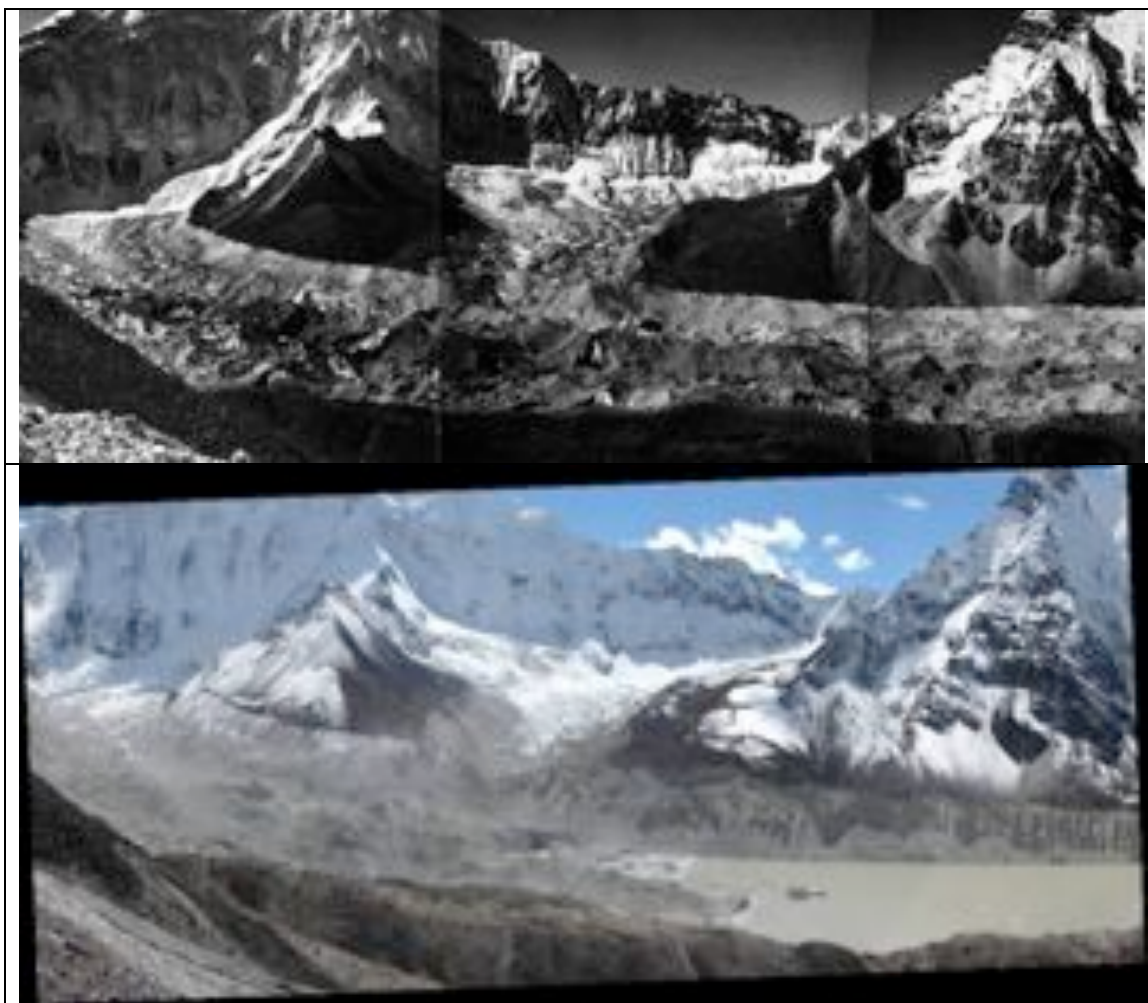


Figure 10. Repeat photography of Imja Glacier from the side of Island Peak shows great loss of ice thickness and glacial retreat due to the formation of Imja Tsho. The above photograph was taken by Fritz Müller in 1956, a member of the Swiss Everest Expedition that year. The second photograph was taken by Giovanni Kappenberger in 2006.

Standing on the west bank of the lake, looking down on the tent encampment of Island Peak base camp to the west, I had not expected the active erosion I saw. The dirt and stone bank I stood on fell by chunks and slides into the massive lake, sending up a dust cloud that climbing guides at base camp told me was ever-present. At the far end of the lake, ice from the hanging glacier slid into the water. Guides also told me that years ago Island Peak base camp sat on top of a glacier that had filled the dirt valley to the side of Imja Tsho that it now occupied.



Figure 11. The bank of Imja Tsho, separating the lake from Island Peak Base Camp. The bank is actively eroding, and a dust cloud hangs over base camp.

Despite the efforts of international organizations and local community members to raise awareness about the threat of an Imja Tsho GLOF – which would inundate the Imja Khola valley and potentially have major impacts on the infrastructure of much of the Everest Base Camp trail – few Sherpas in Chhukung or at the lake itself seemed concerned.

“So what do you know about Imja Tsho?” I asked Pasang. We reclined against our packs on the jumble of black and quartz rocks forming the end moraine dam of the lake. Pasang was a climbing guide for a group ascending Island Peak that afternoon. Outfitted in trekking gear, he carried a small backpack with an ice axe hanging from its side.

“Imja Tsho? Many people say, BOOSH, and all gone!” He mimed the lake breaking through the dam and rushing down the valley. “Hahaha. How? I think Imja ok, you know? Why would it break?” He laughed unconcernedly at the hilarity of such a thing.

Pasang’s perception of the danger posed by the lake was prevalent. The greatest fear concerning global warming among Sherpas in Chhukung was its effect on the climbability of the mountains and the number of tourists who would come. This view indicates a major way in which Sherpa ecological thought has changed with the shift from an agro-pastoralist and trading economy to a monetary one based on tourism. Lal, a 22-year-old cook for an Island Peak expedition, had climbed the mountain, as well as Mera Peak, many times.

“Less snow, glacier on Island Peak, more rock, also on Ama Dablang, Mera, and Amphulaphcha La (a nearby pass). Island Peak in 2007, much more ice, longer glacier, now very rocky, crampons don’t work. More dangerous” (Lal Sherpa 2011). This view was echoed by many climbing and trekking guides I spoke with, who were mainly concerned with how glacial melt would affect climbing expeditions, making them either more dangerous or less enticing to foreigners.

Local Perspectives on Global Warming

Unfortunately I was unable to attend the Imja Tsho Action Run and Sherpa cultural festival in Khumjung, which took place a few days after I left Khumbu. An event organized by Dawa Steven Sherpa, an incredibly active local climber affiliated with the WWF, the run and festival are an attempt to bring attention to Imja Tsho with a 35km race around the region, and a festival celebrating Sherpa culture. Events such as this, as well as the reports and rhetoric of organizations such as ICIMOD and The Mountain Institute, would lead one to believe that

awareness of global warming and GLOFs is high in Khumbu. However, the reality as I found it is that a large gap exists in how those of different generations, education levels, and activity in the tourism industry, view these things. A cohort of the younger generation educated in Kathmandu and abroad with tourism-generated income (as well as some older activists) is taking a great interest in environmental issues and cultural preservation in SoluKhumbu. But the hype one hears in Kathmandu, on the websites and in the voluminous reports generated by right-minded and well-intentioned organizations, does not yet reflect the general perspective in Khumbu itself.

The views I found primarily, but not exclusively, followed generational and occupational lines. Members of the younger generation who received higher education outside of Khumbu, and who were not fully part of the tourism industry, understood global warming and often were trying to do something about it. In my research I found that most Sherpas younger than middle-aged received some sort of western education, and the results of Spoon's demographic survey in 2006-2007 agree. According to his survey most people under the age of 40 received some western education, although with a strong male bias at the older end of the spectrum. Sherpas under the age of 29 had often been sent to school in Kathmandu, but most youth sent abroad for school were under the age of 18 and from wealthy homes (Spoon 2011:662). I found similar quantitative results, and my own observations showed that the *desire* of parents to send their kids abroad for school was very great.

The middle generation made up the majority of people I spoke with, and they were almost all fully involved in tourism as guides, porters, or lodge owners. In some instances this cohort expressed disdain for and mistrust of the researchers and organizations trying to raise global warming and GLOF awareness. Before leaving for Khumbu I was warned many times

about antipathy toward researchers in Khumbu, and while I did not find any of this directed toward me, I did speak with many Sherpas who greatly disliked the research agenda of many who traveled to Khumbu. This feeling was especially apparent in Dingboche and Chhukung, where large groups coming to research Imja Tsho have often filled the lodges. Some climbing guides were angered because these groups fill up space but do not hire out the services of climbing guides or equipment, and thus add little to the income of some (Tashi Sherpa 2011). Most, however, felt that researchers were condescending, telling the locals that they had to change their lives because of some unexplainable emission issue that was causing changes in their mountains. I spoke with some who believed that these “Injie scientists” were pursuing their own agendas, trying to get published or recognized, and causing an unnecessary scare among the local population (Pasang Sherpa, Laxman Adhikari 2011).

The most significant view expressed by this group, however, was a general apathy about the situation. They often told me that the melting of the glaciers was a “natural” occurrence,



Figure 12.

The Italian research pyramid above Lobuche is the highest altitude mountain research station in the world at 5,050m. I arrived in the late afternoon and was able to speak with an American and an Italian researcher, as well as two young Sherpa technicians. Current projects include the creation of a comprehensive GIS (global information system) for Khumbu, study of alpine lake limnology, glacial mass balance monitoring, and atmospheric mercury transportation.

which I interpreted as a lack of concern. They were not yet feeling the negative impacts, and they were preoccupied with their work of leading tourists through and up the mountains. More pressing concerns filled their days.

The third main perspective I found was among the elders of the villages and the monasteries I visited. The education level of the older generation was much lower on the whole, and consisted of more local religious and ecological knowledge.¹³ These elders often expressed a religious view on global warming, telling me that the local deities were angry about the changes in Khumbu.

My interview with Toloko Rinpoche was indicative of the views of the older generation. A native of Solu, he was educated in the *pecha* in Tibet for twenty-five years before becoming the Rinpoche of Tolhu Gompa near Pikey, Solu. It was difficult to divert him from telling me exclusively about the Dharma, but when he got onto the subject of Sherpa Buddhism, mountain deities, and changes in SoluKhumbu he was equally talkative. When I asked him specifically about global warming (not expecting much of an answer), he perked up and proceeded to give me a very interesting explanation of climate change in general, which he claimed came directly from the *pecha*.¹⁴ He told me that global warming happens when two gods, one on either side of the world, are having an argument. When asked about specific causes in SoluKhumbu itself, he said that the melting glaciers and other changes are happening because of bad things in the valley. People used to help each other, he said, but now they are selfish and only care about money. They also are killing many animals. These things anger the gods, the local protector

¹³ A very thorough and worthwhile discussion of the differences in ecological knowledge among different groups of Sherpa society can be found in Jeremy Spoon's 2011 article "The Heterogeneity of Khumbu Sherpa Ecological Knowledge and Understanding in Sagarmatha (Mount Everest) National Park and Buffer Zone, Nepal" in the *Human Ecology Journal*.

¹⁴ I have not validated this claim. It would be interesting to find a religious scholar to discuss what, if anything, the *pecha* has to say about global warming and climate change.

deities, and so they are changing the climate as punishment (Toloko Rinpoche 2011). While Toloko Rinpoche's former opinion was unique to him, I found his latter view among others of his generation.

An interview with Kancha Sherpa – the last surviving Sherpa guide of Hillary and Norgay's first ascent of Jomolangma – published in the New York Times in September 2011, shows similar beliefs. Kancha Sherpa does not believe in global warming, instead explaining the vanishing ice as the result of the killing of animals, and the greater number of people trampling on the heads of the mountain deities. However, he goes on to say, this is the price Khumbu must pay for its increased prosperity. Even though he believes that soon Jomolangma will be only rock, he is most concerned about the well being of the Sherpa community (Friedman 2011).

Tourism and Mountain Deity Worship

Shifting social conditions in Khumbu greatly affect varying perspectives on mountain deity worship and glacial melt. Change in Khumbu over the past 60 years has made the Sherpa population dynamic in terms of education, occupation, and place(s) of residence, and their sacred geography is multi-faceted. On one hand, Khumbu is a sacred valley in which the local inhabitants are protected by deities residing in the mountain tops. On the other, it is a tourist destination. Despite the increasing modernity of most Sherpas, I have found a continuing, deep-seated, earnest belief in the power of these mountain deities.

This belief system is unique and localized, but in a way it is also the very thing that has made Khumbu a destination for thousands of wealthy foreign visitors every year. The mountains which are sacred because of their prominence to Sherpa livelihood are also "sacred" to those tourists. But the visitors bring with them different perspectives on the mountains: they want to

gaze upon them for their beauty, they want to climb them for the challenge, and sometimes to assuage their own egos. They do not come seeking the protection of the deities that reside among the peaks. My research has led me to believe that while these outside perspectives do not in themselves greatly affect local religious practices, the greater opportunity, education, and wealth they provide do have an impact.

There has been and continues to be a shift in the importance of mountain deities. Knowledge of them is not dying out, as discussed previously, but they do not have the same importance as they once did. With the monetization of the Khumbu economy, the protection of the mountain gods is no longer needed for the same things. Now, they are prayed to for different things: for more tourists and increased monetary gain rather than plentiful harvests and good weather.

The best example of this is the rising importance of Jomo Miyo Langsangma. She is one of the five long life sisters of the Himalaya in Buddhist mythology, and only one of two whose location has been revealed. She is the provider of food and nourishment, and is depicted with a bowl of fruit in one hand, and the other open in an offering position.

Figure 13.

An depiction of Jomo Miyo Langsangma in the Pangboche Gompa. The monk there was very eager to show me this *debris*, and urged me to take a picture, although he would not allow pictures of other images inside of the gompa. Tourism and mountain deity worship collide.



When I visited the Pangboche Gompa I asked to be shown the local protector deities. While I knew that both *Khumbi-Yul-Lha* and *Tawoche* were traditionally considered more sacred on a local level, the monk brought me immediately to the image of Jomo Miyo Langsangma, pointed at her, and said proudly, “Mount Everest.” She is often prayed to now for more tourists, since more tourists means more money, and more money means more food and nourishment (Pemba Nuru Sherpa 2011).

Even though Jomolangma is a sacred mountain, she is climbed often because of her place as the highest in the world. This upsets many Sherpas, and those who climb are often very wary about the dangers of stepping on the head of the goddess. They will make offerings and pray for forgiveness, and use the rationale that she is the goddess of food and nourishment, and that climbing her has brought both in plenty to the Sherpa community. Nonetheless, foreign demand has driven the Sherpas to desecrate one of their sacred mountains in a way that was unacceptable before the profit motive changed perspectives (Sherpa, *Through a Sherpa Window* 2008:161).

Receding Horizons: Foreign Influence on Sherpa Perceptions of Khumbu

As stated previously, the focus of this research is not on the affects of tourism on the Sherpa population of Khumbu. However, I quickly realized upon arrival in the region that I would not be able to ignore the influence of foreign visitors to Khumbu in my research. Indeed, at first it was all that I could see. In 2008, 30,000 visitors from 90 different countries visited SNP (Sherpa and Bajracharya 2009). More than being something unavoidable, I began to realize after multiple conversations with a broad variety of people that to ignore the phenomenon would be to dismiss the changing situation of the Sherpas of Khumbu.

For these reasons, and for the purpose of this research, I attempt to understand the secondary effects of tourism in Khumbu on Sherpa perceptions of global warming and glacial melt. Namely, how the changes wrought by the flood of tourists, and the money that comes with them, have changed how Sherpas interact with and perceive their environment. I will focus primarily on three changes in the Sherpa community. First, foreign money has allowed for and spurred the rising level of education in the Sherpa community, which is in turn creating a generational gap in environmental perception. Second, the monetization of the Khumbu economy has changed how Sherpas interact with their environment. The third phenomenon is somewhat more esoteric: how the mountains of Khumbu are viewed by tourists, and how or if this different view of mountains affects the Sherpa's own views of the mountains.

Education

Some studies suggest that youth have less ecological awareness than elders in regions recently shifting to economic from more sustenance livelihoods (Spoon 2011:657). My research suggests a slightly different result: in Khumbu the more highly educated younger generation has a greater understanding of the scientific causes of glacial melt. Youth may have less *local* ecological knowledge, concerning the flora, fauna and other knowledge that was once but is no longer necessary to survival on the land, but they do have a broader understanding of long-term climatic change. Therefore, the traditional knowledge described by Berkes as “a cumulative body of knowledge, practice and belief, evolving by adaptive processes and handed down through generations by cultural transmission, about the relationships of living beings (including humans) with one another and with their environments” (Berkes 2008:7) is almost certainly declining, while a different sort of ecological knowledge is on the rise. As Jeremy Spoon points out,

“Knowledge change is not necessarily knowledge loss. In some contexts new knowledge replaces the old and in others it persists or is remade” (Spoon 2011:658).

Education is highly valued in the Sherpa community. This was perhaps first demonstrated by the answer to Sir Edmund Hillary’s inquiry into how he could help the Sherpa people after his successful first ascent of Jomolangma with Tenzing Norgay Sherpa. When Hillary posed this question to a Sherpa friend, he was immediately answered “our children have eyes but they are blind and can not see. Therefore, we want you to open their eyes by building a school in our village of Khumjung.” (Himalayan Trust 2008). The school built, maintained, and staffed by Sir Edmund Hillary and the Himalayan Trust have been fundamental in allowing the Sherpas to retain remarkable control over development in SoluKhumbu.



Figure 14.

The Khumjung School, the first built by Sir Edmund Hillary and the Himalayan Trust.

The rising level of education has led to Sherpa involvement in environmental and cultural conservation efforts, with Lhakpa Norbu Sherpa and Dawa Steven Sherpa being the clearest

examples. Education in language and business is also highly prized because it allows for entrance into the tourism industry of Khumbu as guides and lodgeowners.

Those who do understand the local impacts of global warming, with a few exceptions, are the least likely to view glacial melt through a religious lens, as they are more highly educated and often maintain an intellectual – if not a cultural – distance from mountain deity worship. In my research I found that those of the younger generation rarely connect melting glaciers and the defilement of the mountain gods, and Spoon's study in 2006-2007 found that youth, along with those on the main tourist route, have less knowledge of spiritual values in general (Spoon 2011:668).

Cash Not Potatoes

The Sherpa economy has essentially been monetized. As livelihoods change, so too do attitudes toward the land. In general, subsistence agro-pastoralists and traders have a reciprocal relationship with the land. If they support it, it will return the favor and support them. In the high altitude, steep Khumbu landscape fed by monsoon rains and glacial melt, traditional Sherpa livelihoods required a favorable relationship with the elements and with the soil. This connection has changed with the introduction of a cash economy.

The rise of the cash economy and the move away from agro-pastoral subsistence living and barter is not only due to increased tourism to the region, although that is certainly a large cause. Since the 1960s, Sherpa livelihoods have shifted toward the support and expansion of the tourism industry, and thrived off of the foreign currency resulting from it (Stevens 1993:418). Indeed, along the main trekking route in Fall 2011, I could see fewer homes than lodges, and those that were only homes generally had some sort of snack or trekking supply shop attached.

According to Stevens, three-quarters of all Sherpa households had income from tourism in 1985, either in the form of men working as guides or porters, a teashop, or a lodge (Stevens 1993:414). Around that time, visitors to Sagarmatha National Park numbered around 8,000 annually; in 2011 over 10,000 tourists visited the Park in October alone (Nepal Mountain News 2011).

Clearly the economy is becoming increasingly reliant on foreign cash influx. From my own conversations and observations, I found that the vast majority of Sherpas living in towns along the central trekking routes relied almost exclusively on the tourist economy. This was especially true in Namche, Khumjung, Lobuche, Gorak Shep, and Gokyo. As Stevens found in 1993, I also found that many families continue small scale gardens and potato plots which are used for the family's own consumption. However, the vast majority of food is bought from outside of Khumbu, and the prices are rising for Sherpas as well as for tourists as the Nepalis selling rice, vegetables, and meat perceive that Sherpas are able to pay more (Stevens 1993:418).

People in different situations in Sherpa society view the continually rising prices of food in Khumbu differently. Most lodge-owners and trekking guides, when questioned about the change in food prices, point out that prices *should* be high, as all of the food is portered or flown from southern climes. This is true, so do the increased profits go to the porters? I was unable to find a direct answer to this question, although the standard of living for porters in Khumbu did appear to be relatively high: most porters were outfitted with warm clothing, sneakers, and a place to sleep. Some of the lodges I stayed in had information booklets on how to treat porters well, and all villages with health clinics had reduced rates for treating porters with altitude or other sicknesses. While villagers in some of the smaller towns (Lungdhen, Thame, Chhukung) which benefit less from the tourism industry complained of rising food prices, they did not make serious complaints, and I saw little poverty.

The Foreign “Gaze”

The traditional Sherpa view of the Khumbu landscape is of a holy beyul, a consecrated land set aside by Guru Rinpoche for the protection of the Sherpa people in which polluting activities are forbidden. On the other hand, the tourist primarily travels to Khumbu to cast their “gaze” on the high mountains and scenery, and in fewer cases on the “authentic” Sherpa people and culture. Here I borrow Peter Moran’s terminology from his book Buddhism Observed, in which the foreign definition and perception of Buddhism is shown to fundamentally change how traditional Tibetan Buddhists practice their religion. I find the analogy, and Moran’s insights on the recreating power of the foreign “gaze” useful in this discussion of the dynamism of Sherpa perspectives on the Khumbu landscape.

My findings suggest an interesting and somewhat complex situation in the impact of the tourist “gaze” on local perceptions. The Sherpas I spoke with seemed mostly to think that foreign appreciation of the mountain views and scenery was funny, if understandable. They catered to it, because that was their business, but when questioned they most often spoke of the Khumbu Beyul, the important holy places, Guru Rinpoche, and the holy mountains. Their personal view of the mountains and the landscape had not simply begun to shift toward that of the tourists; but it had changed (along a spectrum, depending on livelihood, education level, and age).

While visitors to the region objectify the landscape much differently, Sherpa perspectives of the landscape have changed as a result of the shifting meaning of the landscape for *them*, not for their foreign clients. Whereas before the explosion of tourism to Khumbu in the mid 20th century the land provided soil and water for agriculture, grass for grazing, trees and shrubs for heat, it now provides a commodity more profitable if sold to the tourist “gaze.”

Conclusions

The change in the dominant occupations in Khumbu from subsistence agro-pastoralism and trading to cash-driven tourism support has fundamentally changed the Sherpa relationship with the land. (Spoon 2011:669). While both of these occupations connect people to the land for different reasons, the change has affected Sherpa place-based spiritual values and how the changing landscape is perceived and valued.

Global warming and glacial melt in Khumbu, which is happening so quickly that it is readily apparent to anyone who has lived in the region for more than twenty years, is generally viewed through the lens of this shifting economic structure. Among the majority of the Sherpa population, concerns surrounding such an ephemeral and unexplainable threat as global warming are shelved in favor of the far more immediate concerns of running a guiding business, a guest house, and providing food and education for family members. When concern is shown by those involved in the tourism industry it is most often concern over the impact that glacial melt will have on that industry, insofar as it will make climbing more difficult, or potentially harm parts of the main trekking routes. Some who have observed the changes in the mountains ascribe them to deities angered by mountain climbing, increased animal killing, and bad behavior in Khumbu, but they remain primarily concerned with the advancement of the Sherpa community.

Land deity worship in the traditional unique Sherpa Nyingma Buddhism reflects and reinforces a symbiotic relationship with the land. Khumbu's sacred geography is greatly influenced by Tibetan traditions of holy mountains and holy valleys, but Sherpa religion has also developed unique practices of its own, which reflect the extreme landscape of Khumbu and the stresses it puts on its residents. This relationship has changed, however, and continues to change as the local economies shift further away from subsistence and barter. Partly because of the

natural beauty of Khumbu as it is perceived by the foreign eye, the land now provides for the local inhabitants in a much different way than it once did. Instead of being relied upon for its agricultural productive capacity, its grazing areas, its supply of freshwater and open trading routes, the land is now sold as a commodity to outsiders.

Much recent research into Sherpa culture and perception has tried, as I at first believed I would try, to focus exclusively on the *Sherpas*, free of outside influence. Through my time in Khumbu, and my conversations with multiple Sherpas of different backgrounds and socio-economic standing, I have come to believe that to do so is to fall into the pitfall of searching for an “authenticity” that is often much less interesting, and certainly less true, than the dynamic reality of a place and a people.

The Sherpas are an especially diverse ethnic group, especially as they continue reaping the benefits of tourism in Khumbu while at the same time holding on to traditional cultural and religious values. Generation gaps yield highly diverse perspectives on environmental and cultural issues, tourism dollars fund a rising standard of education, and a growing diaspora community is removing many Sherpas from their traditional homeland. They have retained an exceptional amount of control over the growing tourism industry and changes to the physical and cultural landscape of Khumbu, reinvesting time and money into their culture, religion, and surrounding environment.

Khumbu’s sacred landscape is under attack from the external force of global warming, and awareness and action are on the rise. However, the rhetoric of “community-level awareness” and “mitigation strategies” one hears from agencies and activists are not yet the reality on the ground in Khumbu. I am hopeful that the increasing education and involvement of Sherpas in environmental and cultural conservation projects is indicative of a general shift in perceptions.

Recommendations for Future Research

There are many ways in which this research could be deepened or taken further. Firstly, the time I spend in Khumbu was far too short to carry out interviews with the kind of demographic spread that I would have liked. While I was able to get interviews with people from most all of the demographic cohorts I was interested in, the lack of depth in the number of interviews makes the findings weaker than they could be. I also would have liked to spend time in smaller villages, especially during the *Dumchi* festival, to see how the actual practice of mountain deity worship is carried out today.

Concerning Sherpa views of global warming, I think that a study of the Sherpa diaspora community could yield very interesting results, as those living outside of Khumbu likely have vastly different views from those in the region. This type of study could also address the views of the younger, more highly educated generation much more thoroughly than I have here. Additionally, the work of Sherpas in the fields of environmental and cultural conservation both inside and outside of Khumbu could be studied more thoroughly.

Having made these suggestions, I will note (as a caution, not a deterrent) that there are a growing number of Sherpa researchers in the field of Khumbu studies who are able to carry out research in the Sherpa language, and with fewer cultural barriers that can effect results.

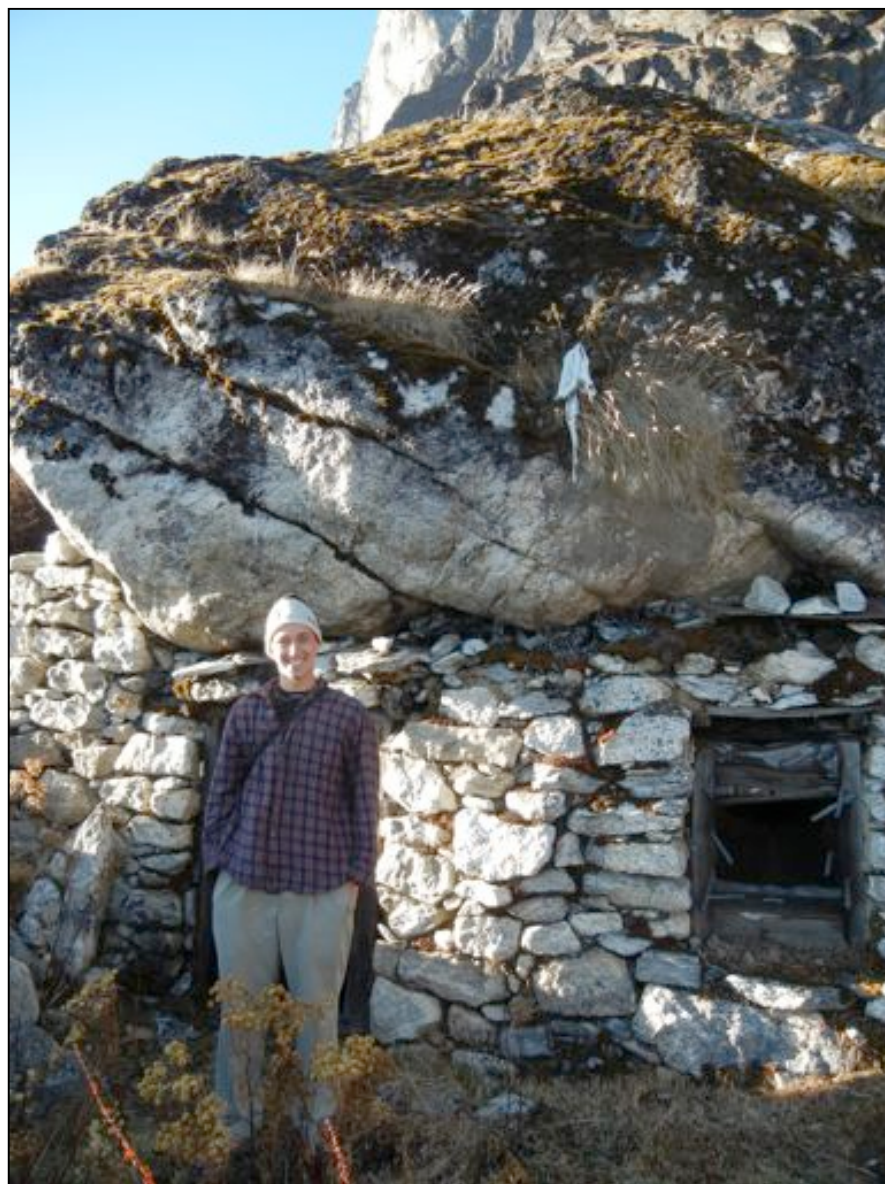


Figure 15.

The author outside of Guru Rinpoche's meditation cave high on the slopes of Khumbila.

List of Interviews

Pradeep Mool, October 25, 2011: glaciologist and remote sensing expert at ICIMOD

Pemba Nuru Sherpa, November 12, 2011: 25 year old Sherpa guide from the village of Cheblung. Major informant.

Phudorjee Sherpa, November 9, 2011: 30 year old Sherpa guide from Norwaling, half Tibetan on his mother's side.

Pasang Thondup Sherpa, November 10, 2011: owner of Tashi Delek Lodge in Tengboche.

Pangboche monk, November 12, 2011: Kunyer at Pangboche Gompa.

Laxman Adhikari November 15, 2011: Sherpa technician at the Italian research pyramid. Born in Khumjung and educated there and in Kathmandu. Major informant.

Phudorjee Lama Sherpa, November 15, 16, 25: Sherpa guide from Phaphlu, also a world-class ultramarathon runner.

Purba Sherpa: guide I walked many days with.

Tashi Sherpa, November 13, 2011: owner of a food and gear shop in Chhukung.

Pasang Sherpa, November 14, 2011: climbing guide on Island Peak for 13 years, interviewed at Imja Tsho.

Lal Sherpa, November 14, 2011: 22 year old cook for an Island Peak expedition based out of Chhukung.

Toloko Rinpoche: interviewed in Kathmandu. 74-year-old 5th reincarnate married lama from Solu. Major informant.

Bibliography

- Berkes, F. *Sacred Ecology: Traditional Ecological Knowledge and Resource Management*. Routledge, NY, 2008.
- Bernbaum, Edwin. *The Way to Shambhala*. Indianapolis, IA: Anchor Press, 1980.
- Eriksson, Mats, Xu Jianchu, Arun Bhakta Shrestha, Ramesh Ananda Vaidya, Santosh Nepal, and Klas Sandstrom. *The Changing Himalayas*. ICIMOD, Kathmandu, Nepal: ICIMOD, 2009.
- Fickeler, Paul. *Fundamental Questions in Geography of Religion, Reading in Cultural Geography*. Chicago, IL: University of Chicago Press, 1969.
- Fisher, James F. *Sherpas: Reflections on change in Himalayan Nepal*. Berkeley, CA: University of California Press, 1990.
- Friedman, Lisa. "A Sherpa's View of the Melting of the Himalayan Glaciers." *New York Times*, September 22, 2011.
- Funke, Friedrich Wilhelm. *Religiöses Leben der Sherpa*. Innsbruck: Universitätsverlag Wagner, 1969.
- Furer-Haimerdorf, Christoph von. *The Sherpas of Nepal: Buddhist Highlanders*. Berkeley, CA: University of California Press, 1964.
- Himalayan Trust. *About Himalayan Trust*. www.doodlecreation.com. 2008.
<http://www.himalayantrust.org/intro.php> (accessed Dec. 3, 2011).
- ICIMOD. *Glacial Lakes and Glacial Lake Outburst Floods in Nepal*. Kathmandu: ICIMOD, 2011.
- Mool, Pradeep Kumar, Samjwal Ratna Bajracharya, and Basanta Raj Shrestha. "Global Climate Change and Melting of Himalayan Glaciers." In *Melting Glaciers and Rising sea levels: Impacts and implications*, by Prabha Shastri Ranade, 28-46. The Icfai's University Press, 2008.
- Nand, Nitya, and Kamlesh Kumar. *The Holy Himalaya: a geographical interpretation of Garhwal*. Danya Publication House, 1989.
- Nepal Mountain News*. "Tourists arrivals up in Sagarmatha National Park." Nov. 2011.
- Oppitz, Michael. *Geschichte und Sozialordnung der Sherpa*. Innsbruck: Wagner, 1968.

Orofino, Giacomella. "The Tibetan Myth of the Hidden Valley in the Visionary Geography of Nepal." *East and West* 41 (1991): 239-271.

Ortner, Sherry B. *High Religion: A Cultural and Political History of Sherpa Buddhism*. Princeton, NJ: Princeton University Press, 1989.

Ortner, Sherry B. *Life and Death on Mt. Everest*. Princeton, NJ: Princeton University Press, 1999.

Ortner, Sherry B. "Sherpa Purity." *American Anthropology* (Blackwell Publishing) 75, no. 1 (Feb. 1973): 49-63.

Sherpa, Lhakpa Norbu. *Through a Sherpa Window*. Vol. 1st. Kathamandu: Vajra Publications, 2008.

Sherpa, Lhakpa Norbu, and Birendra Bajracharya. *View of a High Place: Natural and Cultural Landscape of Sagarmatha National Park*. Kathmandu, Nepal: HKKH Partnership Project/ICIMOD, 2009.

Shrestha, AB, CP Wake, PA Mayewski, and JE Dibb. "Maximum temperature trends in the Himalaya and its vicinity: an analysis based on temperature records from Nepal for the period 1971-94'." *Journal of Climate* 12 (1999): 2775-2787.

Spoon, Jeremy. "The Heterogeneity of Khumbu Sherpa Ecological Knowledge and Understanding in Sagarmatha (Mount Everest) National Park and Buffer Zone, Nepal." *Human Ecology* 39 (2011): 657-672.

Stevens, Stanley F. "Tourism, Change, and Continuity in the Mount Everest Region, Nepal." *Geographical Review* 83, no. 4 (1993): 410-427.

Stevens, Stanley F. *Claiming the High Ground: Sherpas, Subsistence, and Environmental Change in the Highest Himalaya*. Berkeley: University of California Press, 1993.

Staff Writers. "Black Carbon Driving Himalayan Melt." *Space Daily*, February 9, 2010.