When Glaciers Vanish:
Nature, Power and Moral Order
In the Indian Himalayas

par
Karine Gagné

Département d'anthropologie
Faculté des arts et sciences

Thèse présentée a la Faculté des études supérieures
En vue de l'obtention du grade Philosophiae Doctor (Ph.D.)
en anthropologie

Avril 2015

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Résumé

La présente thèse est une étude ethnographique qui examine le savoir en tant que pratique située au Ladakh, dans l'Himalaya indien. Elle analyse les implications socioculturelles des deux moteurs de changement en jeu au Ladakh: l'un est d'origine socio-économique et lié à la production du Ladakh en tant que zone frontalière, tandis que l'autre est de nature environnementale et entrainé par les changements climatiques. Alors que le Ladakh est demeuré hors de la portée de l'État bureaucratique pendant l'administration coloniale britannique, la région s'est trouvée reconfigurée en zone frontalière stratégique après l'indépendance de l'Inde des suites des guerres successives avec le Pakistan et la Chine. L'Indépendance a mené à la partition de l'Inde et du Pakistan en 1947; cette thèse examine la portée à long terme des évènements traumatisants de la partition tels qu'ils se sont déroulés au Ladakh et comment les Ladakhis établissent des liens entre ces évènements et les changements climatiques. L'État indien s'est produit dans la région à travers une volonté de dominer les montagnes, principalement par le développement d'infrastructures et par l'intégration du savoir local des Ladakhis dans l'appareil militaire. La militarisation a restructuré l'économie du Ladakh, redéfini la structure des ménages, contribué à l'exode rural, déplacé la centralité des activités agropastorales et, tel que la dissertation le soutient, altéré de manière significative la connexion de la population locale avec l'environnement. La rationalisation croissante de la perspective sur l'environnement aujourd'hui contribue à la fragmentation des liens qui unissent les domaines naturels et humains dans la cosmologie locale de même qu'à l'abandon des pratiques rituelles connexes. Parallèlement, la région est touchée par des effets distincts des

changements climatiques, en particulier la récession des glaciers. La thèse juxtapose l'expérience subjective de ces vastes changements dans la vie quotidienne des villageois de la Vallée de Sham avec les faits historiques environnementaux, démontrant ainsi que les événements historiques locaux influent sur les perceptions des changements environnementaux. L'analyse démontre qu'un phénomène objectif tel que la récession des glaciers est interprété à travers des réalités locales. Plus précisément, selon la conception du monde locale, un glacier en retrait est une figure rhétorique d'une transformation de la condition humaine. Comme le fait valoir la dissertation, l'interprétation culturelle ne constitue pas un obstacle à l'objectivité de l'histoire naturelle de la cosmologie locale. L'interprétation culturelle et l'expérience empirique s'avèrent par ailleurs essentielles à la vitalité des connaissances locales sur l'environnement et à la performance des pratiques associées.

Mots-clés: Inde, Himalaya, Ladakh, production de l'état, zone frontalière, changements climatiques, nature, savoir local, pratique, agropastoralisme, bouddhisme et vie quotidienne, ordre moral, vieillissement.

Abstract

The dissertation presents an ethnographic study that examines knowledge as a situated practice in Ladakh, in the Indian Himalayas. It analyzes the sociocultural implications of two drivers of change at play in Ladakh: one is of socioeconomic origin and linked to the production of Ladakh as a border area, while the other is environmental and driven by climate change. Ladakh, which remained outside the scope of the bureaucratic state during the British colonial administration, found itself refashioned into a strategic border area following India's independence and successive wars with Pakistan and China. Independence led to the partition of Indian into India and Pakistan in 1947; the dissertation examines the long-term, traumatic events of the partition in Ladakh, tracing connections to current perceptions of climate change. The independent Indian state has produced itself in the region through the taming of its mountains, primarily through infrastructure development and the co-optation of Ladakhi knowledge of the environment by the military apparatus. Far-reaching militarization has restructured Ladakh's economy, consequently redefining household structure, contributing to village depopulation, displacing the centrality of agro-pastoralist activities and, as the dissertation argues, significantly altering the local population's engagement with the environment. The increasing rationalization of the outlook on the environment today contributes to the fragmentation of links between the natural and human realms within the local cosmology and the abandonment of related ritual practices. Concurrently, the region is impacted by distinct effects of climate change, in particular glacier recession. The dissertation juxtaposes both the subjective experience of wide-ranging environmental changes and changes in everyday village life with historical facts, showing that local historical events influence

perceptions of glacier recession and the depletion of natural resources. The analysis demonstrates that objective phenomena such as glacier recession are interpreted through local realities. Specifically, in the local worldview, a vanishing glacier is a trope for changes in the human condition. Yet, as the dissertation further argues, such cultural framing does not preclude the objectivity of natural history in local cosmology. Moreover, cultural framing and empirical experience, therefore, are shown to be essential to the vitality of local knowledge about the environment and to the performance of associated landscape practices.

Keywords : India, Himalayas, Ladakh, statemaking, border area, climate change, nature, local knowledge, practices, agro-pastoralism, Buddhism and everyday life, moral order, aging.

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Acronyms

BRO	Border Roads Organisation
DIHAR	Defence Institute of High Altitude Research
DRDO	Defence Research & Development Organization
GREF	General Reserve Engineer Force
PLA	China's People's Liberation Army

To my daughter, who came to this world on a cold
day of the coldest winter,
and who has since brought warm sunshine into
every single day of this new life.

Acknowledgements

First, I wish to express my most unbounded gratitude to the inhabitants of the Sham Valley, who generously and kindly took the time to answer my multifarious questions. For trekking kilometers and kilometers with me in the mountains in search of "marks" in the landscape, carrying my bags when I could not muster the strength, taking care of me when I was sick (which was often), enthusiastically seeking out "good stories", for being his unique and colorful self, for his loyal help with everything during my fieldwork and for being an incomparable research assistant, I extend my deepest thanks to my collaborator and friend Stanzin Choldan, aka Pema. I owe it to Vicki Lynn Seglin for having put us in contact. For their friendship and support during my stay in Ladakh and for looking out for me, I would like to thank Thundup (Siddarth), Tony (Tseang), Rigzin (Ratan), Gurmet, Dorjey, Gulzar, Jigmat, and Stanzin (Ananda). Odzer, our common passion for classic rock and for the *spang* of Shey made for some of the best memories of my life and I am thankful for that. I am also thankful to Ratan for helping me with the transcription of interviews

I am also indebted to my host family in Leh: thank you, Yuthol and Tsetan, for having opened your door to *chocho karmo*. Many thanks to Anjeli Boby, my dear neighbor and *acha-le* in Leh, you were a ray of sunshine. Thanks as well to Sonia and Amit for your company through the winter. To all the Ladakhi families who opened their doors to Pema and myself, who were both generous hosts and exceptional informants, in each community we visited, my deepest gratitude. I also need to thank the nurses and doctors at the hospital of Leh for nursing me back to health.

Many people in India, locals and others, from all walks of life, including scholars, artisans of Ladakhi society and many others, offered invaluable help at various stages of my fieldwork. I am grateful to Richard Hendin, Blaise Humbert-Droz, Hank Tomas, Tashi Rabgias, Morup Namgyal, Geshe Konchok Namgyal, and Geshe Khampo Konchok Phandey. Many thanks as well to Sonam Wangchuk Karzhong to have introduced me to your family in Nubra Valley in 2011 and having given me the chance to venture on the Khardong-la aboard your Maruti. I

am also grateful to Sonam Wangchuk and Rebbeca Norman of the Students' Educational and Cultural Movement of Ladakh (SECMOL); many thanks to Rebecca for having organized an impromptu discussion between myself and students at SECMOL.

A number of scholars are owed thanks for taken the time to share their expertise on Ladakh in the course my research, in particular Martjin van Beek, Ravina Aggarwal, Katherine Hay, John Bray, Seb Mankelow, and Fernanda Pirie. I am also grateful to Harjit Singh for welcoming me as a research scholar at the Centre for the Study of Regional Development at Jawaharlal Nehru University. For your constant enthusiastic help with my numerous questions, especially in the last stages of this project, my most sincere thanks go to Tashi Wangail Sothi, Daniela Luschin-Wangail as well as Jigmat Lundup. Pentse *meme* of Hemis Supakchan was an invaluable source of information and has my utmost gratitude.

For their help with various aspects of Tibetan Buddhism and Tibetan societies and related topics, I wish to thank Isabelle Henrion-Dourcy, Marc Des Jardins, Lara Braitstein, Jan Salick, Robert Moseley, Georges Dreyfus, and Robert Barnett. Many thanks, as well, to Katia Buffetrille for enthusiastically answering my numerous questions over the course of the past several years. I also wish to thank Gordon Bromley and Kenneth Hewitt for helping me think through glacier growing.

At Université de Montréal, I wish to thank Bernard Bernier, Gilles Bibeau, Guy Lanoue and John Leavitt for being steadfast sources of advice. For her constant support and words of encouragement over the years and through some of the most trying moments, my deepest gratitude goes to my thesis supervisor, Karine Bates. I am thankful to Mattias Borg Rasmussen, who provided insightful feedback on this dissertation, as well as encouragement, and to Maciek Janicki, who took the laborious task of meticulously revising this dissertation. Your humor occasionally made me burst into laughter alone in front of my computer at moments when I needed it most and I thank you for that.

I am extremely grateful to Ben Orlove for mentoring me during the course of the past several years and for hosting me as visiting scholar at Columbia University, where I also had the chance to participate in laboratories at the Center for Research on Environmental Decisions. Mattias Borg Rasmussen and Gustavo Vivalda thank you for your pleasant company and judicious advice during my stay. I am thankful to Fabio Sanchez Torres, for having spent long Saturdays at the library of Columbia University with me while I was preparing my comprehensive exams as New York City brimmed with life outside. At Columbia University, I also want to thank Zoe Crossland at the Department of Anthropology, for inviting me to sit in on her course on Landscape, and Annabella Pitkin at the Department of East Asian Languages and Cultures, for letting me audit her course on Tibetan Civilization.

Parts of Chapters 2 and 3 were presented during a workshop on Territoriality in December 2014, at the University of Copenhagen. I am thankful to Christian Lund and again to Mattias Borg Rasmussen at the Department of Food and Resources Economics at the University of Copenhagen for inviting me to participate in this workshop. For their comments on my papers, I would also like to thank all the participants: Nancy Peluso, Kregg Hetherington, Rune Bennike, Rony Emmeneger, Jevgeniy Bluwstein, Jens Friis Lund, Rony Emmenegger and Muriel Côte.

My accounting of the many debts accumulated on this journey would not be complete without acknowledging its very beginnings, in Dharamsala, in 2004. *Tashi Delek* to my Tibetan brothers from Amdo, who have risked their lives contradicting the "naturalness" of this Himalayan border, Samdup, Ludhup, Pema, Tsultrum, Tinley, Raja, Namlha, Kalsang, Lobsang, and Zorgy, my dear friend. You have all been such wonderful company through my stays in India. You sowed the seeds of this project. I am exceptionally grateful that our paths crossed at one point in (this) life and thank you for looking out for me through the years.

My research has been made possible at successive stages by financial support from a variety of institutional sources, including the Social Sciences and Humanities Research Council (SSHRC), the Canadian Federation of University Women (CFUW), Les Offices jeunesse

internationaux du Québec (LOJIQ), the Faculté des Arts et des Sciences de l'Université de Montréal (FAS), and the Faculté des études supérieures et postdoctorales de l'Université de Montréal (FESP). My fieldwork was funded by the Shastri Indo-Canadian Institute, the International Development Research Centre (IDRC), and the Canadian Anthropology Society (CASCA). This project would undoubtedly not have come to fruition without their support. Finally, I am especially grateful to my family. To my brother Nicolas Gagné, my sister-in-law, Erin Miller Gagné, and my three lovely nieces, Madeleine, Alexiane, and Juliette, thank you for being your lovely selves. To my parents Carmen Labelle Gagné and Richard Gagné, my most sincere and deepest gratitude for the place you made for my daughter and myself in your life while I wrote this dissertation and for taking such good care of the both of us.

Forward
Living Metaphors

The research that developed into the present dissertation began with a metaphor that compared Ladakh's depleting environment with a disruption of moral values. As I delved into my fieldwork in Ladakh in 2012 and began to speak with informants, I quickly realized that, in their view, the erosion of morality was manifest in the failure of too many people to adequately take care of land and livestock, in a rise of self-interest at the expense of community values, and how all this had changed life in the villages. This is the voice of Ladakhi elders. It is the starting point of my reflections on climate change in Ladakh and the prism through which I examine the recent history of the region and the socio-economic changes that are profoundly refashioning the region today. It is my window onto Ladakh's landscape.

My first encounter with the Tibetan Buddhist penchant for metaphors as a way of phrasing and framing discourse, in particular those evoking the natural environment happened about a decade earlier. Prior to my fieldwork in Ladakh, I had spent close to two years in Dharamsala, a small town in Himachal Pradesh state in North India. As the seat of the Tibetan government in exile and the residence of His Holiness the Dalai Lama, the town has a large population of Tibetan refugees. Much of my time there was spent working for human rights NGOs and, throughout my involvement with the place, I developed many friendships with Tibetans. The time I have spent living and working among Tibetan friends and colleagues in India and elsewhere has been highly formative for me, as a researcher and as an individual, and I like to think that, in a sense, I have "grown up" among them. For a time, I believed that this lived experience had endowed me with an intuitive grasp of Tibetan Buddhist cultural references

and unique modes of expression. That was before I arrived in Ladakh.

Figures of speech, proverbs, and analogies that invoke environmental imagery are idiomatic for Tibetans. In my circle of close friends, one man was nicknamed *shin-lo* (leaves), because like the leaves of a tree making noise with the wind, he was always talking in the background without anyone really paying attention to him. During my stays in Dharamsala, I spent endless nights with my friends, listening to them recount life stories and fables from Tibet. Sooner or later, they would inevitably break into song, taking turns chanting *a cappella* the lines they once sung while grazing yaks in Tibet. And I was always left mesmerized: I seemed to have fallen into a group of friends collectively gifted with beautiful singing voices. Their repertoire of folk stories and songs was both deeply infused with notions of morality and abounded in environmental metaphors and references. I exerted much effort trying to grasp the implicit nuances and developing my knowledge of the Tibetan language.

When I came to Ladakh, I soon recognized the same rhetorical processes at work: extensive use of metaphors, circumlocutions, and parables. This was especially striking when talking about environmental changes with Ladakhis. Tibetan and Ladakhi societies are connected by culture, yet remain quite distinct; even in relative proximity, as I observed in Ladakh, Tibetan refugees and Ladakhis engage in only minimal interactions. They do, however, share a perspective on the environment that is deeply rooted in Buddhism and both see the environment as suffused with moral meanings.

Thus my friendship with Tibetans had familiarized me with Buddhist worldviews and rhetorical processes. Yet many of the referents used in analogies and other figures of speech by

Ladakhis are, I realized, quite specific to Ladakh, particularly in terms of references to history and to the process of aging in Ladakh today. Time and again during my fieldwork, village elders confided in me their feelings of loneliness and abandonment. Elders are increasingly left alone in villages but, as I will discuss in detail in this dissertation, the causes of their feelings of abandonment are varied and complex. New education and work opportunities have translated into the intermittent, rather than permanent, presence of the younger generations in villages. Although there are no villages inhabited exclusively by elders and younger people are still present, their engagement with community life has changed. The fabric of communal life, as elders once knew it, is increasingly fragmented. Many rituals, gatherings, festivals, and other community practices are on the wane. Ladakhi villages today include a growing proportion of part-time inhabitants, which inevitably erodes social cohesion. Elders told me on numerous occasions that "today, we don't even know when a child is born", alluding to the elaborate ceremonies that used to mark the birth of a child and which, today, are increasingly truncated or neglected altogether.

One particular event that occurred during fieldwork made me even more conscious of the stigma associated with the situation of elders. At one point, I admitted to a Ladakhi friend how saddened I was by elders' confessions of their loneliness. To my surprise, he reprimanded me harshly for "judging Ladakhi society by Western standards". He assumed that I was comparing the situation of elders in Ladakh with that of elders in Western societies, which is subject to much criticism in Asia for placing people in old-age homes and leaving them to the care of others. Elders in Ladakh, this friend explained, are well taken care of *when they need it*, whether it is for health or other reasons. Yet, in my view, it is precisely the conditional

character of this attention that is so difficult for Ladakhi elders. What they miss most is an everyday presence and the lively village life they knew in their younger days. They also miss the traditional social context in which people respected their voice as community elders. Although deference and respect for seniors continue to be valued in theory, in practice the clash between social changes and traditional life has contributed to demote elders from their respected position. My friend was angered by my suggestion that his fellow Ladakhis were failing the moral duty of providing for elders. But what elders in the villages were confiding, sometimes directly, often indirectly through the use of rhetorical processes, suggested exactly that. If I interpreted their words right, if I made proper sense of their use of figures of speech, the images of a depleting environment that recurred in the long discussions I had with elders in Ladakh are as much objectif facts as they are a metaphor for the decreased vitality of village life and, ultimately, elders' growing isolation.

Everyday Dimensions of Buddhism

The present dissertation is profoundly informed by Ladakhi's perspective on their changing environment, a perspective influenced by Tibetan Buddhist philosophy, recent history, and the current context of Ladakh. My aim is not to produce a work on Buddhist philosophy. Rather, I embark on a journey into philosophy in practice in order to understand how a specific system of beliefs and values shapes everyday life. As Childs (2004:1-2) and Kapstein (2014:3) point out, for many Tibetan studies scholars, an appraisal of the esoteric teachings and contemplative practices of Buddhism is key to understanding Tibetan culture. This position implies that the study of religious philosophy is a gateway to comprehending how individuals of Tibetan Buddhist confession think and act. This stands in contrast with anthropological

studies of life in traditional Tibetan and Himalayan communities, which seek instead to describe how Tibetan religion is lived in everyday practice. Agreeing with Childs (2004:1-2), I believe that emphasizing the doctrinal dimensions of religion in studying Buddhist community life produces oversimplified perspectives that "cast Tibetans as a people incarcerated in an eternal past". Buddhist philosophy exerts a deep influence on lay Ladakhis but, as Childs notes, the way people think, act, and react is also the product of secular cultural values. This point has to be carefully considered in the case of Ladakh, as essentializing Ladakhis to portray them as Tibetans because of their ethnic origins fails to consider Ladakhis' own perceptions of themselves. Undoubtedly there is an ideological underpinning of Tibetan Buddhist philosophy to the Ladakhi conception of the world and it is inextricably linked to how they engage with the world and how they perceive the changing environment. The Tibetan studies literature nevertheless has much to offer for our understanding of the Buddhist ethics and value system that Ladakhis share with Tibetans and it is to that end that this literature forms an important part of my source base. As I will endeavor to show, however, inasmuch as Ladakhis' ideas about the natural world are indeed influenced by these values, they are also the product of empirical observation (i.e. 'objective facts'), historical contingencies to a large extent determined by Ladakh's geographical position and role as a strategic border area, and wide-ranging social and economic changes over the last several decades. Thus, although Ladakhi studies frequently fall somewhere between South Asian and Tibetan studies in terms of themes and approach, it is clear that the input of both those perspectives is essential to a thorough study of Ladakh (see also van Beek and Pirie 2007).

It would thus be misleading to view Ladakhis' actions in everyday life and engagement with the environment as entirely dictated by Buddhist philosophy and values. As in any religion, adherents of Buddhist religious experience the universal societal dimension of tension between individual aspirations and cultural ideals (Childs 2004:2-3), which is particularly salient in Ladakhi society today. How Ladakhis experience these tensions and how they make the various decisions that determine the course of everyday life is very much dictated by the relative weight they assign to cultural ideals and their own aspirations.

Knowing Pema

The fieldwork on which this dissertation is based would not have been possible without the help of my diligent research assistant and friend, Pema, with whom I worked throughout the entire duration of my stay in Ladakh. Pema accompanied me to every village I visited to conduct interviews and gather data. Crucially, it was he, as well, who introduced me to Ladakhis of a younger generation than those I would meet in villages. Although the voice of young adults is overshadowed by the voice of elders in this study, my informal discussions with younger Ladakhis about their lives and aspirations provided me with a key vantage point from which to examine the generation gap that is so present in today's Ladakh and which will occupy significant portions of my inquiry.

Witty, passionate, and curious, Pema took to fieldwork with gusto and was unmistakably enthusiastic about contributing to my research project. At the outset, I had not anticipated that conducting research on perceptions of environmental change was going to draw so poignantly on such sensitive issues as the abandonment and loneliness of elderly people in the villages,

their desperation at having to sell their precious livestock because there is no one left to maintain the herds, and the still-lingering wounds of the violence that accompanied the partition of India in the region. I quickly realized that Pema's presence played a significant role in elders' openness towards us on these issues. To begin with, I believe that this had much to do with the rapid social changes taking place in Ladakh in recent decades. Younger generations are increasingly more interested in cosmopolitan life than in life in the villages. Elders were clearly enthusiastic about seeing people (especially a young Ladakhi) interested in their perspective on local history. As well, being in the latter stages of their lives, many elders felt that some parts of the local history needed to be brought to light, as they said. Besides, it soon became evident that for elders whose voices had lost a measure of influence in the wake of recent social changes, the interviews had a cathartic effect. When answering a simple question, their words often came pouring out, as if they had waited years to share their views on issues affecting Ladakh.

But more than anything, the success of our interview sessions had much to do, I believe, with Pema's life trajectory. From the start, Pema's life had not been easy. Due to tragic life circumstances, at the young age of three years old, Pema was sent to a monastic school established by a Ladakhi monk in the State of Bangalore. This was as far away from his native mountains as could be, especially since road conditions at that time made travel all but impossible. After a few years of living in the monastery, where hunger prevailed, Pema and three other Ladakhi children were adopted by an Indian couple and educated in a school system founded on the nontraditional views of education advocated by a world renowned Indian philosopher. He nevertheless kept his monastic name, Pema. In the following years, he

frequently moved around the country, constantly experiencing rounds of bonding and separation. Although he made a few sporadic trips to Ladakh during this period, it is only around the age of 20, not quite a decade before our work together, that Pema returned to live in Leh. In spite of the fact that he spent many years in what often seemed like a foreign land to a native of the mountains, his sense of belonging to the place remained intact.

His distinctive life trajectory endowed Pema with a profound humanism that translated in an exceptional ability to connect with vulnerable people. Pema also developed (perhaps because he spent so many years outside) a perceptive curiosity for the details of local history coupled with an objectivity towards many dimensions of Ladakhi life. I am convinced that it is only because of his presence that elders were able to confide sometimes very intimate life stories. If I would have stayed the whole duration of my fieldwork alone in a single village, it is possible, perhaps, that I would have developed the level of social intimacy required to create a context conducive to such discussions. But, as I will explain in detail in the Introduction, I had chosen another methodology. Hence, I believe that Pema, not only a local figure, but also an attentive and passionate listener, was instrumental in making the elders whom we interviewed feel comfortable – indeed enthusiastic – about discussing highly emotional subjects. For these reasons, I see the fieldwork component of my research as the result of teamwork, rather than as the product of one anthropologist's lonely craft.

Fieldwork is a highly personal experience and the methodological tools used by the anthropologist are entangled with the anthropologist's self. The researcher who strives towards objectivity must first and foremost acknowledge his or her involvement in the context under study. Perhaps out of a desire for transparency, it was only instinctive for me not to mute my

voice and it will soon become clear to the reader that my voice, not only as researcher, but also as an individual experiencing Ladakh, is quite present in the pages that follow. This is because I strongly believe that my own subjective experience of the field enabled me to more efficiently tackle a range issues analyzed in the present dissertation. Notably, I could not have grasped fully the lived experience of the harsh Ladakhi winter if I had not lived it first hand. My experience of the physical and psychological challenges of life in this mountain environment was crucial to shaping my understanding of the difficulties Ladakhis must live with and, more broadly, of the social, economic, and political dynamics shaping Ladakh today.

The Structure: (An) Environmental History

This dissertation adopts the form of a narrative and constitutes a diachronic outlook on a changing place. The narrative begins in the 19th century, when the Dogra dynasty ruled Ladakh from Kashmir, concurrently with British colonial rule, until both ended with the independence of India in 1947. Along the way, the story picks up many threads of contemporary Ladakhi history and relates the very personal stories of Ladakhis who live with various, disparate effects of that history. It concludes with the end of my fieldwork, in September 2013. Although I am careful to uncover their objective dimensions, the historical and environmental perspectives I examine are not scholarly or scientific. Science does not recognize metaphors as a legitimate tool through which to understand a changing environment. Science does not explain environmental changes by referring to disruptions of values or religiously-informed cosmologies. For my informants, that the environment is depleting because the moral order has been disrupted is a plainly evident fact. This does not mean they are not aware of the physical processes behind such changes. Ladakhis possess

extensive empirical knowledge about the environment. But as I demonstrate throughout this dissertation, this knowledge constitutes only one facet of the story. Whether this perspective may prove to have commonalities with scientif climatology is a question I touch on, but leave open to further reflection.

Through their work, anthropologists open pathways to understanding unfamiliar realities and systems of belief, as well as their ramifications for everyday life, including people's behaviors. Ladakhis have a deep sense of history. They are acutely conscious of the many political, economic, and societal changes that have affected Ladakh in recent decades. This historical consciousness is often evident in their discourse. For many Ladakhis, nearly all events happening in the 'now' are framed within a rich historical context. It took me some time to realize this, but, once I did, the historically rich metaphors Ladakhis use to account for their changing environment all of a sudden seemed to fit like the pieces of a puzzle. Through the process of interviewing and discussing with people, I had to separate the subjective dimensions from the objective lines of Ladakh's recent history, which until then I had only known from books. India's first war with Pakistan (1947-48) was a particularly salient theme of informants' testimonies and I will discuss it broadly and at length in the present dissertation.

In adopting a diachronic structure for this dissertation, I have decided to follow my informants' reasoning on the origins of environmental changes in Ladakh, namely that they are deeply anchored in broader processes that have altered Ladakh as a place over time. In weaving my analysis around the testimonies of elders, I have endeavored to remain faithful to their voice.

Introduction

After a long winter, spring had finally come to Ladakh. Everywhere in the Sham Valley, people were leaving the comfort of their kitchens and the warm fires of their wood stoves as the temperature outside was becoming more and more agreeable. The blanket of snow covering the surrounding summits was slowly melting, the precious meltwater feeding the streams that irrigate terraced fields through ingeniously complex arrays of channels. Soon, the glacier meltwater would quicken the current of the streams on which the region's agrarian village economy depends.

We were in Ang, in the upper part of Tingmosgang village. *Abi* (grand-mother) Lobsang was preparing kahwah tea for us, a traditional infusion from Kashmir Valley. In the pot, she brought to a boil water with tea leaves, cinnamon bark, cardamom pods, and sugar. Then she added her special ingredient, a handful of apricot kernels, the precious delicacy of her native Sham Valley. A pleasant fragrance filled the room, the walls covered with soot left by smoke from the fireplace over the long winter months. *Abi* Lobsang handed each of us a cup. I was accompanied by my research assistant, Pema. With its abundant quantity of sugar, typical of Indian tea, and the fragrant spices of the Kashmir Valley, my cup of tea was a microcosm of the diverse influences that have travelled across the high summits of the Himalayas to our Buddhist Ladakhi host's kitchen.

But all was not well with *abi* Lobsang. A few weeks earlier, a snow leopard broke into her animal pen, right beside her house. Nine sheep and goats fell easy prey to the big cat. Two ox

calves survived the carnage, but one of them died a while later. The incident deeply upset *abi* Lobsang. Upon hearing the news, villagers had gathered at the elderly woman's house. In the meantime, she had managed to trap the snow leopard in a shed – an easy task, she said humbly, as the beast was "drunk on blood". Some of the village men wanted to kill the animal, but *abi* Lobsang stopped them. It happened to be an auspicious day in the Tibetan calendar and it would have been a great sin to kill a living being.

When we visited her a few weeks after the incident, she was still in shock. She felt sorry for the animals she had reared in very difficult conditions. At 75 years of age and only her husband to help her, taking care of the animals had not been an easy task. But she had kept her livestock, despite her household's shortage of workforce. She feared that selling her animals to Muslim buyers, as many villagers do in the Sham Valley today, would mean the slaughterhouse for her sheep and goats. Why her, she wondered? Why such a retribution? She had lived an honest life, making regular offerings at the monastery, fulfilling her community duties, and participating in rituals and festivities. Her children were working outside the village, as is true of many Ladakhi households now, and had not taken up work on the farm. She wondered if they ever would. She and her husband were struggling with the effects of old age and the work necessary to maintain the farm. Soon after the loss of her animals, other villagers invited a local Rinpoche, an incarnate lama, to visit the village. The Rinpoche told them that the event must have been a form of retribution against the community. His words provided *abi* Lobsang with a measure of solace (she was therefore not the sole culprit), although she still missed her animals.

Misfortune seemed to befall the community of Ang with particular insistence that spring. This was the sowing season and the whole hamlet was short of water to irrigate the fields. There is less water in spring because there is less snow these days, Abi Lobsang explained. When I asked her why there was less snow, she paused for a moment, pensive. "It could be due to the warmer temperature", she suggested, "it is much warmer in winter these days".

Abi Lobsang refreshed our cups of tea. The warmth of the mug provided relief for my cold fingers. Here, at an altitude of 3,600 meters, spring still felt cold after a long winter. My question having piqued her curiosity, *abi* Lobsang carried on with her observations. The water in the stream that passes through the village was in the past much higher in springtime, a change she attributed to the recession of the local glacier and decreased snowfall. *Abi* Lobsang then recollected how, when she was young, villagers would bring charcoal into the mountains in order to grow Kangri[1] Soma, the "new glacier", which stands next to the considerably larger "old glacier", Kangri Knipa. They would do this "when there was a fear the glacier would go", she explained. As a young girl, she had found it a pleasant activity to go around with other villagers collecting charcoal from the fireplaces of every household. The villagers fulfilled a community responsibility by providing charcoal for Kangri Soma in order to make it grow. "This is what people would do", she said, reminiscing. "They would bring this to the mountains, they said charcoal was needed to make the glacier grow". Although she trekked to Kangri Soma on several occasions while taking livestock to graze, *abi* Lobsang never accompanied the villagers bringing charcoal to the glacier, as she was too young at the time. I heard elders give such quasi-oneiric accounts of villagers trekking to glaciers with bags full of

[1] In Ladakhi, *kang* (ice) *ri* (mountain) means glacier.

charcoal on numerous occasions in the Sham Valley. All indications are that that this practice today belongs to the past. Elders saw it performed in their childhood, but not since.

"Why aren't people doing this today to try to help with the water problems?" I asked. "I don't know", she said, adding, "things were different before, now people have become really empty at heart". Such reflections were a leitmotiv that suffused the discourse of Ladakhi elders. In the present dissertation, the practices through which Ladakhis once engaged with glaciers constitute the point of entry to my study of knowledge and relation to place in Ladakh. How have people come to lose their intimate connection to glaciers? How is it that the prospect of losing glaciers in the past compelled community mobilization, whereas today, the retreat of glaciers, widely acknowledged among Ladakhis, has failed to elicit a similar reaction? Whether or not such practices were effective in growing glaciers and maintaining water supplies is not what concerns us at present. Importantly for our discussion, however, *abi* Lobsang's account is evocative of a change in people's relationship with glaciers, and, by extension, with Ladakh as a place.

The current context of climate change frames my reflection, but climate change is not a phenomenon that occurs in isolation of broader processes. Since the past decades, at the same time as Ladakh has experienced significant political, economic, and social change, largely resulting from the strategic position of the region as a border area, its natural environment is depleting: glaciers are receding, snowfall and rainfall have become scarcer, and natural springs are drying up; in addition, since vegetation in the mountains is depleting, wild animals forage closer to villages, attracting predators that prey on farm animals like the ones *abi* Lobsang kept

in her pen. In short, the landscape of Ladakh has changed significantly during the lifetime of Ladakhi elders.

Often viewed more in terms of its implications as a global process, climate change has very real and distinct effects locally, on the ground. Climate change in the Himalayas manifests in many ways that are unique to the region. Moreover, the impacts of climate change differ locally within Ladakh, sometimes from one valley to another. In the Sham Valley, for example, where many village streams are fed by small glaciers, the water stress is more tangible than in adjacent Nubra Valley, which is bounded by the high summits of the Karakoram mountain chain. Ladakhis have no control over climate change, but, as *abi* Lobsang' account shows, villagers did in the past mobilize to control their environment, by managing the condition of glaciers in practices that today have fallen into disuse. This suggests that the connection between Ladakhis and glaciers has changed considerably.

This dissertation is in many ways an exploration that seeks to understand what changing glacier practices say about a changing relationship with place and, more broadly, people's disconnection from the natural environment. Along the way, I will consider a series of questions that address different aspects of these changes. What factors contribute to sever a previously intimate link between people and the environment, including its natural elements, such as glaciers? What place did glaciers hold in the Ladakhi cosmology and how has it changed? What role has the Indian state played in redefining how people engage with places? What do these changing relations with a place tell us about local knowledge of the environment? Ultimately, what does the case of Ladakh tell us about the human dimensions of

climate change?

Landscape Ethnography

This dissertation is an ethnographic study that examines the encounter between, on the one hand, the militarization and the bureaucratization of the Indian Himalayan region of Ladakh and, on the other, the local sacred and agro-pastoralist landscapes. The dissertation argues that the rationalization of Ladakh's natural environment by the state has significantly altered the local population's engagement with the environment, contributing to the fragmentation of the ties that unite the realm of nature and the realm of human beings in the local cosmology. The dissertation also seeks to demonstrate that the encounter between the state and local knowledge systems has significant implications for how the people of Ladakh perceive and respond to the environmental changes currently affecting the region. In bringing into conversation questions of territoriality with the material dimension of the landscape of Ladakh, my study also demonstrates the spatial organization and configuration of nature, culture and power.

In order to examine these questions I proceed by doing a "landscape ethnography", namely an analytical description of Ladakh as a place and the elements of its natural environment, from the perspective of state and non-state actors. Long defined as a static object of human observation, landscape has become the subject of growing interest for anthropologists, archeologists, cultural geographers, and historians. The present thesis, likewise, explores many themes that find common ground in the landscape of Ladakh. In the emerging literature,

anthropologists give centrality to native perspectives[2], revealing how landscape constitutes a fundamental feature in people's existence, thus transcending the representational character of former approaches and moving away from notions of "framing convention" (Hirsch 1995:1). Through a study of the affective aspects of the topography (including elements of the naturalized environment), many contributions to this literature reveal how landscapes resonate with cultural significance, since they function as repositories of collective memory, mythology, social identity, thus providing a gateway to decoding the worldviews of specific peoples (see Basso 1996; Cruikshank 2005; Thornton 2008). In other words, "landscape blurs the boundaries of objective reality and subjective human experience" (Willow 2011:263). Henri Lefebvre's (1991[1974]) processual approach to space has been influential to this body of work. For Lefebvre, more than an entity that preceded culture, space was the product of a dialectical process between material and ideological dimensions. Moreover, theorization of space, in his view, was contingent on a proper understanding of the experience of space.

As scholarship on the humanity of the landscape has shown, engaging with the landscape is often an act of remembering. Hence, the relationship between everyday practices of engagement with the landscape, memories, and morality creates a dialectical relationship between the past and the present. Anthropologists exploring memory as a form of historical narrative caution that nostalgia often intervenes in memory by producing an embellished view of the past. Yet, articulation of the "truth" and the repertoire of memories do not need to evenly equate: for anthropologists, salience is rather often given to the tensions which infuse

[2] For scholarship in anthropology and other humanities that adopt a landscape perspective, see Gupta and Ferguson (1997), Ingold (1993), Tilley (1994), Hirsch and O'Hanlon (1995), Schama (1995), Feld and Basso (1996), Cosgrove and Daniels (1998), Bender (2002).

the act of remembering (Angé and Berliner 2015; Antze and Lambek 1996; Climo and Cattell 2002).

Landscape is often the prism through which authors investigate places and spaces. The theorizing approach to the humanity of landscapes, together with the scholarship on space and place (see Low and Lawrence-Zuniga 2003), demonstrate that landscape practices are intertwined with various forms of power, highlighting how places are socially constructed and how related experiences need to be culturally relativized (Ogden 2011:27). To make a landscape ethnography is therefore to attend to the encounter between ideas related to a specific landscape and the power relations involved in its production.

Despite efforts to conceive of landscape as more than a backdrop to culture and societies, the elements that represent landscape in much of the literature remain generally static and few studies have given extensive consideration to questions of human engagement with landscapes in a context of environmental change[3]. This thesis examines environmental change as it is lived and perceived by those whom it affects directly. Processes linked to climate change transforming the landscape of Ladakh today include glacier recession, mountain desertification, changing rainfall patterns, and the drying up of water sources. Other changes, such as the decrease in cattle numbers and the progressive abandonment of farmland, are closely linked to state practices that are transforming Ladakh as a place. Hence, environmental changes in Ladakh are both the outcome of natural phenomena and human intervention resulting from the state's conception of the landscape.

[3] Cruikshank (2005) is a notable exception.

By expanding on previous scholarship on the theorization of the landscape, in this study, I examine the political, economic, and socio-cultural dimensions of these integrated environmental changes. This places my approach in dialogue with the second generation of political ecology and, in particular, its orientation towards practice theory (see Biersack and Greenberg 2006). My underlying aim is to study the links between human actions and broader structural forces in order to reveal how acts carry their owns rules and limitations (Ortner 2006). Applying this framework to the analysis of a landscape-in-the-making, I examine the actions through which people engage with the environment. These actions, I argue, are constrained by the state and, more specifically, by how the state conceives the landscape of Ladakh.

The landscape as it is lived is the product of the relation between local territorial practices and broader conceptions which are closely linked to broader political structures. In agreement with Trudeau (2006:422), I consider that the prism of landscapes reveals the structure of material and discursive boundaries, whose stability points to uncontested power hierarchies that dictate which specific arrangements of values, aesthetics, and behaviours are normal or natural. However, as my discussion will show, the lived landscape of Ladakh is not exclusively the product of the totalizing views of the state. In fact, as I demonstrate in this dissertation, there exists today an uneasy tension between different perspectives on the landscape of Ladakh. My research shows that landscapes hold different meanings for different communities and social actors, resulting in a wide variety of landscape practices. But there is an asymmetry of power in actor's ability to influence the experience of Ladakh as a place and the state constitutes a dominant force. My work, therefore, seeks to develop a clearer understanding of ties that bind,

affect, and alter landscapes and their associated practices, as well as people and their surrounding environment.

Within my conceptual approach, the landscape of Ladakh is tridimensional and comprises a sacred, an agro-pastoralist and a geopolitical constituent (what I term "border" landscape). While these three landscapes are entangled and form the whole landscape of Ladakh, each of them is characterized by specific forms of knowledge and specific sets of practices. The salience of each of these views (sacred, agro-pastoralist, and border) in the production of Ladakh as a place is characterized by unequal power relations so that the way the landscape is lived and the ideas that frame its practices are not always, as mentioned, in harmony.

Last, in analyzing local perceptions, it is crucial to remember that each of these landscape is characterized by a network of relationships between humans and non-humans (i.e. depending on the landscape in question: elements of the environment, infrastructure, animals, deities). Different social actors have different claims over the territory of Ladakh and their practices create links between the sacred, agro-pastoralist, and border landscapes. Entangled with one another, the three landscapes work to produce and define what Ladakh is as a place today. The resulting composite Ladakhi landscape is strongly influenced by powerful tactics of territoriality that aim to order the landscape to make specific assertions. As we will see in this dissertation, various conceptions and definitions of the landscape in Ladakh encounter and interact with perceptions of environmental change and the practices through which people engage with the environment. While the chapters of this dissertation constitute an in-depth

analysis of each of these landscapes, I first present an overview of what is at stake in each of them.

The Politics of Place: The Border Landscape

How does state machinery redefine the experience of a landscape? At the time of India's independence, Ladakh was a distant afterthought among Delhi's concerns, a nearly forgotten place. The written history of Ladakh contains numerous gaps, but the available sources show that in the eight century Ladakh was under Tibetan suzerainty (Rizvi 1996:56). Ladakh's political history has been strongly influenced by the region's location between Tibet and Hindustan (Rizvi 1996:87). Ladakh paid a small tribute to Tibet, which maintained a (loose) suzerainty over the region until Zorawar Singh's conquest in 1834 (Cunningham 2005[1854:12]). However, in 1684, after the death of the Fifth Dalai Lama, the boundaries between Ladakh and Tibet were established (Rizvi 1996:73-74). In religious matters, Ladakh nevertheless maintained a close connection with Tibet (Bray 1991).

By the 19th century, the region fell under the jurisdiction of the maharaja of Jammu and Kashmir. But, in the interval, a succession of kings reigned over Ladakh, a period characterized by numerous attempts by Muslim powers to bring the region under their sway. In 1819, Kashmir came under the rule of the Dogra[4] emperor Ranjit Singh, who controlled a powerful army led by Gulab Singh, one of his vassal princes, who was instrumental in the Emperor's military successes. In 1834, General Zorawar Singh and his troops marched into Ladakh. The emperor's army did not act alone, however: the takeover was sanctioned by the

[4] The Dogra was a Hindu Rajput dynasty

colonial British regime, who saw Ladakh as a "natural border" for India (Aggarwal and Bhan 2009:521). During the first Anglo-Sikh war (1845-1846) Gulab Singh sided with the British after their victory and was able to purchase the entire territory of Kashmir and surrounding areas for the relatively small sum of 8.5 million rupees (Gutshow 2004:24), giving rise to the political unit of Jammu and Kashmir. As maharaja of the territory, Gulab Singh was entitled to tax Ladakh, which he did unscrupulously. In 1846, the treaty of Amritsar officially transferred Ladakh to the Dogra ruler, albeit under British suzerainty. Subsequently, the British asserted greater control over regional trade, through a commercial treaty signed in 1870, which established the post of British Joint Commissioner, based in Leh (Aggarwal 2004:33-34).

In 1947 the vast region known as British India gained independence from British rule and the former dominion split into the sovereign states of Pakistan and India. During what became known as the Partition of India, more than 500 princely states had no option but to join either of the two emerging nations. Among them was Kashmir, whose eclectic population mix included a range of religious confessions, each largely concentrated to specific areas. Kashmir was ruled by the Hindu maharaja Hari Singh, who also presided over the Hindu-majority area of Jammu. Overall, just over half the population lived in the Muslim-majority Kashmir valley. To the east, half of the state consisted of the sparsely populated region of Ladakh, predominantly by people of Tibetan Buddhist confession. Hesitant to join India or Pakistan, the maharaja's loyalty swayed towards India after armed tribesmen from Pakistan stormed into the Kashmir Valley, in October 1947. This however did not put an end to the conflict. In 1948, the Gilgit Scouts along with Pathans marched towards Leh, as hostilities spread

throughout the area, culminating in the first India-Pakistan war, which opposed two armies that had previously served the same ruler (Gutschow 2004:24-25). Subsequently, in 1962, the Sino-Indian War erupted as Chinese troops seized the uninhabited territory of Aksai Chin, in the northeast part of Ladakh. Today, the territory, covering 37,555 sq. km, is under Chinese jurisdiction, although India has not abandoned its claim that the area is part of Ladakh.

The assault on Ladakh as part of India's first war with Pakistan and the Sino-Indian War marked a significant change in the region's history. The Indian state had no choice but to acknowledge Ladakh's primary importance as a strategic border region. Notwithstanding the fact that the Himalayas had always been considered a natural frontier for India during the colonial era, Ladakh's remoteness, lack of infrastructure and vast tracts of unoccupied land, contributed to a perception of the region as a weak link in India's national security. Anthropologist Arturo Escobar (1995, 1998) has discussed at length how conceptions of nature are produced through discourse and practice, as well as how the definitions of what counts as nature and what function it should serve carry profound implications for local populations. Moreover, as Bruno Latour (2004) has demonstrated, the materiality of nature is often central to the way it becomes politicized. In Ladakh, following both international conflicts, previously fluid borders were demarcated, sealed, and put under strict guard: to the west and to the north, the Line of Control separates India from Pakistan, while to the east the Line of Actual Control marks the border between India and China. On all sides, armies vigilantly protect their territory while periodically trying to recapture parcels of land from their neighbors. But the tracing of these borders constitutes only one side of the story. Life along the border within Indian territories changed significantly. The successive border conflicts prompted India to

initiate a process of transforming the physical environment by making massive investments in road construction in the region, in order to more easily navigate and more effectively control the territory. Along with the intensification of the militarization of the area, these developments have transformed Ladakh into a strategic border region, whose frontiers are among the most contested in the recent history of South Asia. The Indian states' policies in the region have culminated in a process I call "taming" that has transformed Ladakh as a place into a natural fortress, profoundly impacting the everyday life of the local population.

But the politics of place in Ladakh in recent decades has been configured by other factors, as well. The formation of postcolonial India in the Himalayas took place in a context of war against neighboring countries, transforming Ladakh into a critical geopolitical theater in which the local population were suddenly called upon to play a decisive role. In 1948, when the Pakistani raiders invaded Ladakh, the defending Indian troops were guided through the unfamiliar terrain's mountain tracks and paths by Ladakhis, whose local knowledge of the place proved crucial to repelling the incursion. The unique topography of the landscape's difficult, high-altitude terrain, proved to pose quite a challenge for the Indian forces. The Ladakhi population became the state's strategic ally in the protection of the territory.

Moving away from both top-down and bottom-up approaches, Sivaramakrishnan (1999), in his historical account of forestry in West Bengal, examines the genealogical and processual dimensions of state and society. In his analysis, Sivaramakrishnan challenges the narrative of homogenizing development processes based on Western influences by arguing that peripheral societies and ecologies, as well as local cultures, are both influenced by the state and exert a reciprocal influence on state practices. As I will demonstrate, in co-opting Ladakhi knowledge

of the environment by forming the Ladakh Scouts regiment, the Indian state has made the population of Ladakh crucial to its production in the Himalayas. But, in the same process, the state has also produced a very particular 'sentinel citizenship', a mode of integration to the nation in which the citizen's economic subsistence is contingent on the ever-present threat of international conflicts (more on this below). In removing the Ladakhi workforce from the villages in order to protect and defend the border, however, the state has created a vacuum in the villages, with profound impacts for those like *abi* Lobsang who maintain the traditional way of life.

These observations lead me to examine notions of power, which play a determinant role in the border landscape. Thinking in terms of power is essential if we are to historicize state control over a territory. The social construction of the environment and its utilitarian function have been central to critiques of development. The political consequences of natural resource management projects that fail to take local realities into consideration and the adverse ecological and social ramifications of the 'commodification of nature' have been amply discussed in the literature (Baviskar 2007, 2008; Escobar 1995; Ferguson 1990; Guha 1989; Guha and Martinez-Alier 1997; Shiva 1989). The focus on resources, however, does not provide a complete analytical perspective to examine questions of intentions, response and reflexive interaction of people and the environment when their control is the objective of the state (Campbell 2013:4) a salient feature of the production of the Indian state in Ladakh. Power, as I see it is strongly connected to processes of territoriality (see Peluso and Vandergeest 1995; Peluso and Watts 2001), a concept that informs complex analyses of questions of political ecology, which have shown that control over interactions with natural resources can

be a means of control over populations and places; how these power relations play out in practice has repercussions at the community and household level.

Embodied Knowledge: The Agro-Pastoralist Landscape

In exploring questions of environmental knowledge acquisition through experience and the role of the rural economy in shaping perceptions of the natural world in Ladakh, it is essential to discuss the agro-pastoralist landscape. While my aim is not to provide a comprehensive review of debates over concepts of 'nature' and 'environment', both heavily laden with semantic weight, certain conceptual boundaries must nevertheless be defined. As authors have pointed out, there is a functionalist/materialist dimension to the concept of 'environment' and I will use the concept in the present dissertation to refer to the natural world as transformed by human activity. Nature as I will use the concept is something that was not made by humans, but is extensively subjected to human intervention. Nature can be institutionalized, through conservation programs, for instance; nature can be manipulated on various levels, from the scale of genetic engineering to that of infrastructure developments. In an effort to move away from the dualistic character of environmental history, which has tended to separate nature and culture, anthropologists have taken a historical approach to the study of the relationship between people and the natural environment (Fairhead and Leach 1996; Gold and Gujar 2002; Sivaramakrishnan 1999), and this is the approach I adopt in my analysis.

Having long been at the center of anthropological inquirees, what counts as nature and as culture have been the focus of renewed questionning as anthropologists have turned their attention to the lived dimensions of the reciprocal relation between humans and non-humans.

One approach to this draws on the phenomenological perspectives of Heiddeger and Merleau-Ponty, focusing on engagement with the environment through practice and experience, which are the sources of human perception and intricately linked to knowledge about the environment. This approach informs my study of the agro-pastoralist landscape, which is associated to a body of knowledge about the environment resulting from a set of empirical practices transmitted through generations, and sustained through an assemblage that comprises non-humans.

Another question we must consider is: how do people know the world around them? Ingold (2000:55) argues that knowledge of the world is acquired through movement, exploration, awareness and bodily presence. "Learning to see, then, is a matter not of acquiring schemata for mentally constructing the environment", Ingold explains, "but of acquiring the skills for direct perceptual engagement with its constituents, human and non-human, animate and inanimate". In his study of human engagement with the environment, Ingold rejects the opposition between the mind and the world characteristic of Cartesian dualism. Moreover, for Ingold, knowledge is not separate from practice: both take shape in mutual interaction. Ingold follows Merleau-Ponty in stating that the perceiver is an "embodied presence", since the body is the vehicle of "being in the world", of connecting to a specific environment (Merleau-Ponty 1945:111). For Ingold (2000:169), "the body is thus neither an object nor an instrument, but rather the subject of perception". As this body is integral to perception, nature is "lived" more than it is "out there". Interaction, experience, and bodily immersion are thus central to knowledge about the environment.

The farming dimension of the agro-pastoralist landscape is characterized by work on the land. Farming as a practice includes a wide body of knowledge, ranging from meteorological observation, to assessing soil conditions and crop health, to water management and irrigation, and a range of other skills transmitted through generations and developed through experience. The pastoralist dimension of the agro-pastoralist landscape is characterized by movement. Pastoralist knowledge originates in the bodily navigation of the landscape while grazing cattle includes knowledge about pasture conditions, dry alpine plants, mountain trails, and myriad other aspects and elements of the landscape. But cattle, as I explain in Chapter 5, are not just a component of the pastoralist landscape, they are fundamental to it. Without cattle, the pastoralist landscape ceases to be a lived experience.

The connection between movement and mobility in the everyday as modes of knowledge acquisition and ways of shaping the environment has been recently examined by researchers (Creswell 2010; Ingold 2000, 2007; see also Stilgoe 1998). In particular, Ingold (2007-75-81) distinguishes between 'transport', defined as bodily movement through space from one determined point to another without any further sensorial engagement with the environment, and 'wayfaring', defined as a transformative experience and an affective engagement with the environment that follows from the act of taking unplanned routes across space. Transport and wayfaring differ, for Ingold, not in terms of their recourse to technology, but in their modes of engagement with and perception of the environment:

> Transport, then, is distinguished not by the employment of mechanical means but by the dissolution of the intimate bond that, in wayfaring, couples locomotion and perception. The transported traveller becomes a passenger, who does not himself

> move but is rather moved from place to place. The sights, sounds and feelings that accost him during the passage have absolutely no bearing on the motion that carries him forth (Ingold 2007:78)

Thus, for Ingold, wayfaring is a learning experience in which the human body is the primary vehicle of knowledge acquisition. This cogent description needs, however, to be problematized further in order to acknowledge criteria of social differentiation. In fact, much of Ingold's work on perception of the environment fails to disaggregate 'the perceiver' into perceivers differentiated by criteria such as age, gender, and class, which can be determining in how people navigate through space in various contexts. As I will show, however, the experience of the pastoralist landscape must be analyzed in more dynamic terms that account for both social differences and change over time. Very few studies have taken an interest in how engagement with the environment changes through time, over the course of life[5]. *Abi* Lobsang's situation as an elder struggling to take care of her animals is representative of the hardships faced by a growing number of Ladakhis, in particular elderly villagers who keep livestock: grazing the animals in the mountains is strenuous work to begin with and becomes only more difficult with age. Aging, in this context, must be viewed as a factor that constrains people's ability to physically engage with the landscape.

In examining the agro-pastoralist landscape, I incorporate the temporal dimension of perception into my discussion on engagement with the environment, which, I argue, must be analyzed in the light of the life course of the perceiver and the recent history of Ladakh. Ladakhis' perception of the environment is fundamentally empirical: as in situ knowledge, it is

[5] Dyson's recent study (2015) among young herders in the Indian Himalayan state of Uttarakhand is an exception.

based on experience and life-long observations. It is associated with a way of life in the mountains, where the needs of subsistence bring villagers into contact with the land and its water sources, mountains, and glaciers. However, as we will see, current socioeconomic and demographic trends suggest that this form of engagement with the environment is becoming increasingly circumscribed.

Moral Nature: The Sacred Landscape

The Himalayas have been described as one of the world regions most vulnerable to climate change (Cyranoski 2005). Glaciers, Orlove et al. (2008:3) explain, play a key role in our understanding of the planet and their retreat is a dramatic example of its vulnerability to human impacts. Despite certain disagreements on the rhythm of recession (Cruz et al 2007:493; Raina 2009; see Nüsser et Baghel 2014 for a review of the debates), most scientists agree on glacier retreat in the Himalayas. Small glaciers and those at lower altitudes are also particularly at risk (Inman 2010:29; Schmidt and Nüsser 2012:107). Current research shows conclusively that Ladakh's glaciers are in recession (see Kamp et al 2011; Nüsser and Schmidt 2012; Pandey et al 2011). Small in size, the glaciers of the Sham Valley have not been the object of systematic scientific studies, which tend to concentrate on large glaciers. Among Ladakhis, the recession of glaciers is a widely acknowledged fact, however. In the Sham Valley, like in most of Ladakh, each village is fed by a glacier. Villagers come into regular contact with the glaciers when grazing livestock in mountain pastures and they have clearly seen the ice recede in recent years.

While the recession of glaciers is one of the most tangible effects of climate change, the fact

remains that much uncertainty surrounds scientific assessments of the present and future of Himalayan glaciers. Dubbed "the third pole", they constitute the least studied and most sparsely documented glacier environment in the world (Sveinbjörnsson and Björnsson 2011:44). Several factors account for this. Conducting scientific field research in the particularly difficult terrain of the Himalayas is a daunting challenge (Sangewar 2012:197), requiring considerable manpower and logistical planning (Bhutiyani 1999). Expeditions to glaciers are fraught with danger, that include landslides and avalanches, in addition to the many physical ailments that can affect researchers in a harsh environment (Inman 2010:28). Another difficulty in collecting information on glacier change in the region is the lack of reliable meteorological data for the Himalayas through which to assess regional climate change and its effects on glaciers. Knowledge on precipitation in the region remains limited, all the more so for high altitudes areas. Most meteorological stations are located at elevations below the lower limits of glaciers and are often in places that have urbanized rapidly, so that the trends they reveal may not be valid for glaciers elsewhere (Bolch et al. 2012:311). Geopolitical issues also pose key limitations. Due to conflicts with both China and Pakistan, the border area of north-west India is heavily militarized, limiting access for researchers. For these reasons, large-scale contemporary topographic maps are not publicly available (Schmidt and Nüsser 2012:108), collaboration between Chinese and Indian research teams is forestalled (Bagla 2009:925) and access to meteorological data are strictly controlled (Le Masson and Nair 2012).

Analytical models established for the Himalayas predict that even minor climatic shifts negatively influence water storage and glacier runoff (Barnett et al., 2005; Immerzeel et al.,

2010). Thus, *abi* Lobsang's observation on the later arrival of water in the village stream in spring substantiates one of the projected impacts of glacier recession in the Himalayas, a question that has not received enough attention in Ladakh. Moreover, when summer precipitation is scant or absent, as is increasingly the case in Ladakh (see Shaheen et al. 2013), snow and ice melt become the major contributors to water availability (Thayyen and Gergan, 2010). While the relative contributions of glacier meltwater and rainfall to river discharge varies significantly for India's major rivers (Immerzeel et al. 2010), Ladakh receives very little rainfall, making the sustainability of the region contingent on meltwater. Bolch et al. (2012:310) remark that the socio-economic importance of the seasonal melting of glaciers, although varied throughout the Hindu Kush-Himalayas, is crucial where rainfall plays a negligible role in the vitality of local streams. As Ladakh receives scant rainfall, the water stored in glaciers is of fundamental importance for crop irrigation and, thus, for food security (Schmidt and Nüsser 2012:108).

Studies documenting the impacts of glacier change and erratic precipitations on Ladakhi communities have begun to emerge, however (Angmo and Heiniger 2009; Banerji et Basu 2010; Mingle 2015). Climate change impacts are diverse and not limited to glacier recession. My informants testified having observed the drying up of natural springs (*chu mig*), reduced water levels in the streams, the depletion of the vegetation cover in the mountains, less rain and snow, as well as warmer temperatures in both summer and winter (see also Angmo and Heiniger 2009). These changes are consistent with climate change projections. While changes in weather reported by Ladakhis are corroborated by available meteorological data (Shaheen et al. 2013), no systematic link has been established thus far between climate change and the

reduction of the plant cover or between glacier recession and the depletion of groundwater in Ladakh[6]. The potentially strong impact of climate change on alpine plants has been studied in the context of Tibet (Salick et al. 2009), while Namgail et al. (2012) have observed a loss of biomass and diversity of dry alpine plants in Ladakh, although the causes of this change are yet to be identified. Moreover, the role of glaciers in aquifer recharge in Ladakh has not been the object of systematic studies, but Jeelani (2008) has shown that in Kashmir the regional warming and below-normal snow accumulation have triggered glacier recession and a reduction in spring discharge.

Notwithstanding the current lack of scientific data, Ladakhi villagers experience the impacts of these changes. For *abi* Lobsang and many others, decreased snowfall and rainfall is significantly contributing to the depletion of vegetation in the mountains and is in turn forcing herbivore like urial to look for food closer to the villages. As predators follow their prey close to human settlements, the number of attacks on livestock has increased. Likewise, the drying of natural springs is said to contribute to the depletion of *spang* (grassy marshland) where the livestock graze, thus forcing herders to find other pastures.

Although Buddhist Ladakhis in part rationalize changes in the environment along same lines as scientific approaches – for instance, linking glacier recession to warmer temperatures and

[6] While environment oriented NGOs in Ladakh concentrate their work on issues or pollution and conservation, the main research group that collects and analyzes data is the Defence Institute of High Altitude Research (DIHAR), a laboratory of the Defence Research & Development Organization (DRDO), under the administrative control of the Ministry of Defence. Besides a few desert development projects showcased at the Hall of Fame in Leh, a museum operated by the army that serve at the same time as a memorial to the war heroes, details on the activities of the DIHAR are not accessible to the public or to foreign researchers. When I attempted to visit their compound, displaying my research visa, I was sternly denied access by a guard. My subsequent attempts through different channels were also unsuccessful.

decreased snowfall, as did *abi* Lobsang – such explanations, in their view, can only partly account for environmental change by describing physical causes and effects. In the Tibetan Buddhist perspective, nature is more than its physical, material manifestations. When Ladakhis experience climate change, they formulate explanations that also account for intangible, existential root causes.

In Ladakh, where arid soil can barely support life, practices through which people engage with the environment have been based traditionally on the premise of an interdependence between the laity, deities, and nature (Bastien 1983). At the heart of this principle of reciprocity is an ideal of harmonious co-operation that is manifest in "humanity's relationship with animals, plants and the landscape" (Harvey 2000:156). These beliefs infuse the environment with moral significance, so that people's attitudes are seen as having an effect on the environment, which responds to the human moral condition. Thus, any change in the landscape is seen as an outcome of human attitudes and actions, as well as lack of respect for local deities. Accounts of interdependence between the human and natural realms, which transcend rationalist views of nature, remain the primary prism through which my informants decipher environmental changes occurring in Ladakh.

Local modes of rationalization have been an object of study since the emergence of anthropology as an academic discipline. Revisiting these issues in the current context of climate change shows that despite the significant changes that the planet has known over the past century and the increasing human potential to control nature due to rapid technological development, the scientific outlook on nature has not become predominant for all societies. The limits of Western rationalization in producing knowledge about the world was central to

Evans-Pritchard's *Witchcraft, Oracles, and Magic Among the Azande* (1937). In the now classic work, the British anthropologist wanted to show how practices among the Azande people that may seem primeval or absurd to Westerners are in fact logical and explicable by social factors. The Azande, argued Evans-Pritchard, were able to distinguish perfectly well between natural and supernatural events, but referred to witchcraft when faced with unfavorable circumstances they could not explain by reference to natural causes: thus, witchcraft becomes a way to explain unfortunate events. Thus whereas the Azande knew the natural causes of a given event, witchcraft enabled them to say, in addition, why it had happened to a particular person, in a particular place, at a particular time. Witchcraft thus provides a social explanation for certain events by ascribing them to spells cast by certain members of the community onto others. Evans-Pritchard suggested that in a sense, the Azande people possessed broader knowledge than "modern" people in industrial societies, because they could look to witchcraft to explain misfortune, but science could not.

In similar fashion, the Tibetan Buddhist cosmology enables Ladakhis to explain and understand a range of events and processes, such as the depleting environment, which Ladakhis see as the result of changes in human behavior. This does not mean that Ladakhis do not understand the environmental processes behind the outcomes they observe; Tibetan Buddhist cosmology coexists with many principles of scientific rationalism (Salick and Byg 2012; Samuel 1993). But the Tibetan Buddhist cosmology does not segregate humans from the natural environment and, in fact, establishes links between human behavior and the environment. Tibetan Buddhist landscapes, therefore, serve as a reflection of the attitudes of human collectivities. Importantly, notions of retribution are key to understanding this

relationship: bad (i.e. immoral) human behavior triggers supernatural retribution in the form of negative occurrences in the environment. In other words, a Tibetan Buddhist landscape is a landscape of morality. As we will see, the dialectic between physical and cultural landscapes in Ladakh is manifest not only in perceptions of the environment, but also in the corpus of ritual practices associated with elements of the natural environment and a range of symbolic and architectural inscriptions in the landscape.

Lastly, Ladakhi society, like all societies, is characterized by internal tensions. My analysis focuses on generational differences and frictions. Elderly Ladakhis made up the majority of my informants and theirs is the main voice speaking throughout my study. The question of aging is a recurring theme of this dissertation and it is considered in light of the Tibetan conception of the life cycle. As I will explain in more detail in further chapters, for Tibetan Buddhists old age is seen as a time to improve the chances of good reincarnation by accumulating merit through good deeds and by refraining from sin. Yet, the socio-economic dynamics at work in Ladakh today makes it increasingly difficult for elders to act in complete accordance with Buddhist moral ethics. In particular, economic and demographic realities have made it difficult for villagers to keep their animals and maintain their land, both of which have long underpinned subsistence and to which they relate spiritually. The ethical dilemmas and other struggles they face today reinforce Ladakhi elders' belief that the moral order has been altered and that the environment is depleting as a consequence.

On Sentinel Citizenship and Embodied Environmental Ethics

The argument I make in this dissertation goes as follow. From engagement with the environment emerges knowledge; but engagement with the environment and related knowledge are also central to the development and maintenance of an environmental ethics, or moral principles. My second, and related argument is that mobility is key to the maintenance of this environmental ethics. Thus, a changing place (through state intervention) can lead to a disconnection from the environment (notably by circumscribing mobility), a loss of knowledge and alteration of a worldview. Moreover, the very fact of living in a changed place can bring ethical conundrums. This is what happens to people in Ladakh today as they have become sentinel citizens (more on this below).

My hermeneutic model for the integration of the subjective and material dimensions of the landscape of Ladakh finds inspiration both in phenomenological approaches to engagement with places and in the anthropological study of the body in order to form an environmental phenomenology. Studies of the body have certainly occupied a prominent place in anthropological research. Early discussions of the mind–body connection were developed by Marcel Mauss (1935) and Maurice Merleau-Ponty (1945). Questions of the cultural construction of the self, personhood, and their link to the body have been the focus of symbolic and psychological anthropology (Geertz 1976; Strathern 1988). Medical anthropology has centered on the interconnection between the mind, the body, and culture (Lock 1993, Scheper-Hughes and Lock 1987), as well as the body as a vehicle of pain and suffering (see Crapanzano 2004, chapter 3) or of sensory perception (Howes 2003). Other focuses of study

have included the material dimension of sex and sexuality (Butler 1993) or the body as a vehicle of kinesthetic experience (Samudra 2008). Overall, this scholarship has brought into focus the political and cultural dimensions and representations of the body by emphasizing experience. But, as a vehicle to engage with places and through which to know the environment, the body has not attracted as much attention. This question will be analyzed throughout this dissertation, but will be discussed more extensively in Chapter 2, 3 and 5. This brings me to the contribution this dissertation makes to environmental anthropology, namely by elaborating an embodied environmental ethics.

The relation between engagement with the environment and the development and maintenance of an environment ethics – or moral principles as they related to the environment – remains largely unexplored. Discussions on perception of the environment developed around the work of Tim Ingold have enabled to better understand knowledge acquisition process, but how do body, knowledge and landscape fuse and become inseparable? And how does this knowledge feed an environmental ethics? Scholarly work interested in the relation between ethical values and the environment has tended to emphasize how worldviews and values lead to a specific environmental treatment. In this dissertation, I reverse this approach by considering how from interaction with the environment emerges a certain ethics and how, breakage in this interaction can contribute to the disintegration of the environmental ethics, manifest here as a loss of sensibilities for vanishing glaciers. But this environmental ethics does not concern only the environment *per se*, but is also about the treatement humans have towards humans base on an awareness of the environmental context. For instance, Ladakh is a harsh place where life becomes particularly difficult in winter. It is also a place where until recently,

subsistence used to be based strictly on the very limited resources this arid environment provides. In this context, familial and community arrangements used to ensure that most vulnerable sections of the population – elders, for example – would not be left on their own device, either to accomplish farm work or to go through winter. A decaying environmental ethics also translates into a failure to provide such arrangements.

Sentinel citizenship, a defining feature of life in Ladakh, is central to my demonstration. Ladakhis will remain sentinel citizens as long as the region will be a border area, as long as the economy of the place will depend on conflicts with neighbouring nations, and as long as they will be mobilized to facilitate the production of the state in the area. Sentinel citizens are therefore people whose status depends on the role they play in the production of the state. This role, as I will demonstrate in Chapter 2 and 3, is a matter of bodily knowledge. What the Indian state has to capture for its production in the area, is local knowledge in the form of bodies, a knowledge that cannot be abstracted on maps. For this reason, its production entails the creation of a distinct mode of integration to the state for the local population in this border area.

As I will demonstrate, engagement with the environment is becoming increasingly circumscribed as people become sentinel citizens. Ladakhis, thus, engage with Ladakh as a place less as a mean to maintain a rural agrarian economy than as a way to protect a border. Importantly, sentinel citizenship also forces Ladakhis to live with a number of ethical dilemmas. It imposes on Ladakhis the disconnection from rural life and the impossibility to fulfil familial and community obligations. It results in Ladakhis living a life which contradicts

Buddhist as well as other cultural values. For elders this means not being able, in accordance with the Tibetan Buddhist life cycle, to dedicate themselves to the accumulation of merit through virtuous acts in light of future reincarnation; for a number of Ladakhis of a younger generation, this means participating in matters of warfare in order to ensure their subsistence; for every Ladakhis, this means living in a place where the context of everyday life is defined by the politics of the border area.

Therefore, as the region of Ladakh has now become a border place, Buddhist Ladakhis, I argue, live in a perpetual ethical conundrum. The lived experience of everyday life in Ladakh, or practical engagement with the world, makes the border, the sacred and the agrarian landscapes inseparable as they fuse with Ladakhi bodies; each landscape are all part of the ethical experience of life in Ladakh. This work is thus about an embodied environmental ethics. It contributes to environmental anthropology by integrating bodies, knowledge and landscape through a practical engagement with the world.

The Method and The Journey

At the airport in Leh, Pema and his friend were waiting for me. They took my huge suitcase and my 90-liter backpack, the contents of which (loads of clothes, among other things) were going to seem so pathetically futile to my eyes a few months later, and packed them in the truck. We went straight to the office of the Superintendent of police, where I had to register within the first 14 days of my arrival in the country, as I was in India on a research visa.

I was met by an officer whose office, filled with piles of papers and devoid of electronic

equipment, seemed to date from another era. The officer reproachfully informed me that had I came one day later I would have had to pay a late registration fine. “Sorry sir”, I explained, “I had to attend to other administrative matters in Delhi before flying to the mountains”. The man ignored my answer and continued to browse a stack of papers intently. All of them were profiles of other foreigners and, judging by the pictures that identified them, some of the forms appeared decades old. All these people were once wandering souls in the Himalayas. He pulled out the profile of a man, who, as I could read, was in Ladakh in order to do architectural conservation work in a monastery. He started to fill out my form, guided by this template. The man and I apparently had bureaucratic commonalities. In the center of the room, the floor was damaged by many burning wood splinters. In the ceiling, the chimney hole for the *bokhari*, the portable wood-burning stove that is so essential to any Ladakhi house in winter, was blocked with rags. It was the end of September and the weather was still pleasant, so that the hearth had not yet been installed. Two weeks later, while in a village, the bucket of water I was using to wash my face in the morning would be frozen.

The officer turned to Pema, and proceeded to ask him a succession of questions – Who are his relatives? What is his phone number? How do we know each other? Am I paying him to be my research assistant? How much? Is she really going to stay over the winter? And, perhaps more surprisingly “does she like Ladakhi food”, a concern whose significance for the police I have never quite fathomed. Providing such information was part of the normal questioning addressed to anyone hosting a foreigner on a research visa. My research visa, glued into my passport, was in fact complicating my access to Ladakh more than a regular tourist visa would have. I was sternly lectured by the officer on the limits on my movement: restricted zones –

which are normally accessible to tourists with a special permit, easily obtainable, albeit for a very short period of time – and cantonment areas.

At one point during this first encounter, the officer left the room explaining that he needed to see the senior superintendent of police. "Do you think everything is fine"? I asked Pema, who answered "God knows", in the blasé voice I would later come to find so typical of his profound cynicism for bureaucratic procedures. I waited anxiously. In theory, the local police could not refuse my entry as my research project had already been approved by the Ministry of Home Affairs of the Government of India. But in a border area, unpredictability is the norm. The man eventually came back with my passport. "Here, all is fine", he said with a laconicism that contrasted sharply with my stress over this crucial step towards my fieldwork.

As we headed towards Pema's home, in a village situated on the southern side of Leh, the face of the city was revealing itself as yet another overcrowded Indian city-to-be, with poor urban planning translating into queues of beeping cars. As the capital of Ladakh, Leh epitomizes much of the rural-urban tension present not only in the region but throughout India. On our way, near the bus station, I could see houses built by settlers migrating from villages perched on top of bare, rocky outcrops. With a population that grew from a mere 2,895 to 30,870 inhabitants between 1901 and 2010[7], Leh has something of a sad dust bowl, in which humans have visibly stripped the land of much of its resources. Encroachment on common land is ubiquitous. At night, people throw bricks onto plots of land to claim a piece of ground with the skeleton of a house. And even the army resorts to the same tactics, so that the city is today

[7] Data are extracted from Dawa (1999:373) and GoJ&K (2012).

flanked by an expanding number of military installations (sometimes occupying formerly common lands), all in the name of border security.

We reached Pema's home. After brief presentations to his mother and uncle, Pema urged me to go to sleep to stave off altitude sickness. I stepped into the room that was going to be mine for a few weeks, before I would move down to the first floor for the winter. I could feel that the rhythm of my respiration had increased from climbing the few stairs. I started to nurse a headache. From the window I could see dzos (cow-yak hybrids) in the field outside. In the tree, next to the window, a magpie perched proudly, its royal blue feathers contrasting with the brown hue of the house's mud bricks. The landscape before me was dominated by the magnificent Stok Kangri, one of the highest summits of Ladakh. In the background, the sounds of the city sang out. From the adjacent living room, I could hear people speaking a language that sounded very different than the classical Tibetan I was more familiar with. My head was spinning. I felt extremely tired. With the stress of my registration now behind me, the weight of high altitude hit me as if I had inhaled soporific gas. I sat on the bed, badly in need of rest. Just for a few minutes, I thought. Questions ran through my mind: "What am I doing here"? "How will I be able to spend a year in this place", I wondered. "Will I be able to make it"? I put my head on the pillow. I woke up only many hours later, this time in another world.

* * *

"You are really going to Ladakh at the wrong time, you are going to die there". This was how a senior scholar at a Canadian research center in Delhi reacted when I explained, during a meeting in her office in the month of September, that I was taking a plane to Leh in the next

few days. It was not the first time I faced this type of reaction to my project of spending a full year, including staying throughout the winter, in the Himalayas, at a sufficiently high altitude (about 3,500 meters) to experience hazardous weather conditions. Since my aim was to study life in my chosen fieldwork location as it develops throughout the year, not only during the five or so comfortable months of spring and summer and as I am from Canada, where winter conditions are severe, I had to give it a try.

My host family was also afraid of the idea of having a foreigner staying in their house in winter. Even more terrifying for the mother, the head of the household, was the fact that she was going to leave for winter in Punjab, where her husband, a military man, was posted. This meant that Pema – her son and my research assistant – and I would have to manage everything in the household for the duration of the winter by ourselves. I imagine that she was dreading a scenario of her house being set on fire through neglectful manipulation of the *bokhari* more than us suffering from malnutrition. It was not the first time that Pema was going to spend the winter in Ladakh, but as his mother knew well, one should never underestimate the workload required to run a household during this season.

Pema was my research assistant for the whole duration of my stay in Ladakh. While I could easily make do by myself with the hours of unstructured interviews that took place (mostly in English) with people aged 25 to 35 years, managing the semi-structured interviews with elders on my own was an altogether different challenge. I soon realized than my notions of the Tibetan language were nearly useless in Ladakh and it was Pema who provided me with the fundamental resources to establish and maintain a connection between myself and my informants. With his assistance, I recorded 85 hours of semi-structured interviews with 109

respondents – mostly lay people, as well as a dozen religious experts – the majority of whom were over 65 years old[8]. Each of these interviews was then meticulously translated and transcribed by Pema and a second research assistant. This methodology was indispensable despite the fact that my proficiency in the local language evolved during the course of fieldwork from a mere smattering of words to the point where I could understand most of a discussion. The rich and detailed narratives of elders were beyond my grasp of the language. Moreover, elders in the villages have their own local expressions and their narratives of the past involved countless references to terms and themes that were not part of the common Ladakhi lexicon I grew familiar with through everyday interactions. Fortunately, as the bulk of my research was conducted in the Sham area, Pema could grasp most of the local terms, since his paternal family was from this part of Ladakh.

Figure 1. *Typical village of the Sham Valley (photo by author)*

[8] The vast majority of my informants were farmers; a limited number were former traders, teachers, or had been employed in various occupations for the government; some were former servicemen; many others had worked during a decade or more for the army, often as porters on a contractual basis.

In addition to my research in Leh, I conducted most of my field research among Ladakhis of Tibetan Buddhist confession[9] in Sham Valley, the name given to the Indus valley, which spreads from Nimoo to Khaltse (Dollfus 1989:22-23)[10] (see maps 1, 2 and 3). Most of the settlements in the Sham Valley are located at altitudes ranging from 3,200 to 3,900 meters (see Figure 1). I conducted fieldwork in ten villages[11] (during stays lasting from two weeks to two months, sometimes supplemented by subsequent visits). I also conducted less extensive research in five other villages, interviewing specific informants referred by others and carrying out various observations for my research project. Instead of a multi-site approach (see Marcus 1995), I adopted what I consider to be a single-site approach to fieldwork, that is, I focused on multiple locations, but which were all concentrated in the Sham Valley. This methodology enabled me to better identify the nature of environmental change as it is experienced in Ladakh, including its differing manifestations in different villages. This required me to consider a host of factors, such as village location (the degree of water stress can depend on the position of a village along a stream) and proximity to glaciers: practices through which people engage with glaciers may vary depending on the distance from village to glacier; villages located at higher altitudes tend, I found, to have more elaborate practices.

More than an assistant, Pema was a companion throughout my journey, which took on especial importance in wintertime. As the cold set in, our quality of life was dramatically reduced. As soon as November arrived, before departing for Punjab, Pema's mother blocked

[9] None of the village where I conducted research had inhabitants of Muslim confession.
[10] The limits of the Sham Valley, also referred to as Sham *Ilaqa* (area in Urdu) appear to be fluid – some Ladakhis suggest that the valley extends to Skurbuchan village, while others consider that it reaches the border with Pakistan.
[11] These villages are: Hemis Shukpachan, Yangthang, Tia, Tingmosgang, Khaltse, Saspol, Saspotse, Nye, Basgo, and Nimoo.

the taps to prevent the pipes from freezing and water had to be fetched from the community tap. Fetching water – a task we quickly scheduled to every second day, thus initiating the first step into our steady descent from cleanliness – was by far the thing I hated most. A round trip to the community tap was exactly half a kilometer, the second half of which consisted of carrying two full 15-liter water jugs (with a total weight of about 65 pounds). It is at this time that I moved downstairs from my room on the upper floor of the house to a small (170 square feet) room-cum-kitchen where I would spend the winter and the remainder of my stay in Leh. The *bokhari* was installed in the room and Pema instructed me on its use. Although I was quite familiar with using this type of wood stove, the fact that newspapers were suddenly swapped for kerosene as ignition material was at first slightly frightening. But winter in Ladakh is no time to lack confidence in one's survival skills. Some two week later, I was, like any other Ladakhi, liberally pouring kerosene into the *bokhari* to light its fire as quickly as possible.

As winter set in, every household chore became excessively time consuming and unpleasant. Washing clothes in barely lukewarm water (we had to save wood) was, to put it bluntly, miserable and items could hang on the clothesline outside for days before they dried. After a time, keeping a balance between work and cleanliness became irrelevant. When the number of days between baths started to exceed a week, I stopped counting them. I could spend days without seeing my own body: to remove a layer of clothes, even for sleeping, would have meant losing precious bodily warmth and spending the next few hours shivering. And we were not the only ones to search for warmth in winter: one day, I found a dead mouse under my pillow. What would have seemed jarring back home was now just another element of the

discomfort to which I became accustomed. Like I got used to using an outhouse in minus 15 degrees Celsius.

Our method of work was strongly dictated by the degree of discomfort associated with winter. Living in a cold, mountainous region seems to have accustomed villagers to the cold, as sleeping next to the hearth is not for them a common practice. While in the villages, we were freezing. When in Leh, we burned wood for heating without a second thought. We thus limited the duration of our stays in the villages to about two weeks during each month in winter. While spending time in a village inevitably meant compromising our physical comfort, it had the advantage of providing a unique perspective on Ladakhi life, when everyone is free from farming activities and other labor of the busy summer months. And an additional perk to staying in a village at this time of the year was much better food than we were cooking in Leh.

By January, supplies in Leh started to run dry. On January 18, the town had its first snowstorm of the season. As winter tires are non-existent in India, the cars were insecurely climbing the hills, as well as dangerously sliding down them. On the same day, a collision between two buses in Choglamsar, a few kilometers south of Leh, cost the life of two people. Judging by local newspapers such accidents were common at this time of the year. That day, I went to the market to take in the ambience of the snowstorm and to replenish our small pantry, the contents of which were increasingly lacking diversity as the winter advanced. Fruits were nonexistent and vegetables were reduced to drab potatoes, onions, turnips, cabbages and unappealing carrots shriveled by frost. Eating the local way was the only option in winter. Despite its lack of diversity, I relished traditional Ladakhi food, but it is very time consuming to

prepare. Our steady diet, therefore, consisted of plain rice and dhal, which is much faster to make, but which it did not take me long to dub our "jail food". Pema, however, kept reminding me that this would have been luxury food back in his monastic years. It is at this time that a "food depression" set in, a state I only overcame when spring brought fresh vegetables again.

That day at the market, I was desperately searching for milk, an essential ingredient in my coffee and my sole daily culinary indulgence. After having asked eight different shopkeepers if they had "milk-in-box-and-no-powder-milk" I finally found the milk box gold mine. Seizing the opportunity to make reserves before having to resort to the dreaded powdered milk (fresh cow milk meant made me sick before), I asked the shopkeeper for four boxes, to which she replied a cautious "yes" and proceeded to take the milk out from its hiding place under the counter. It was only once I reached home that I noticed the letters "for defence services only" printed across my precious cargo. A flourishing black market in army supplies was just another part of the Ladakhi winter.

One day, Pema's mother called to say that she was sending a gift from Punjab: a bag of vegetables! Pema's cousin was in the army and he was going to bring the package on his return to Ladakh by military plane. In anticipation of his arrival with the bag of vegetables, our hungry imaginations dreamed of a bonanza of fresh nutriments. It was with great enthusiasm that Pema finally received the long awaited phone call from his cousin announcing that the treasure had reached Leh – a reunion with the cousin was no match for the excitement of fresh food. Bursting with excitement, Pema asked a friend to drive him, since he thought it would be easier than by bus to bring back what had now grown in our imaginations into a veritable

bounty of crisp vegetables. I waited impatiently. When Pema reached home, he carried a tiny bag containing exactly three cauliflowers and a bunch of spinach. It turned out that the army was severely limiting the weight allowable on its planes, so that Pema's cousin had to throw away some of the precious cargo before boarding. Definitely, winter was no time for nice food in Ladakh. Perhaps that was the law of winter, we thought, and anybody who tried to contradict it was bound to be disappointed. We ended up laughing about it, yet I knew Pema was deeply upset. And for the first time during my stay, I felt like crying, the deceived hope of a vegetable hoard having crystallized all the difficulties of fieldwork thus far.

Fortunately, we had a new opportunity to see fresh vitamins coming in from the lowland. Pema's aunt was coming back from Punjab, where her husband was posted, and she was going to bring a bag of fruits and vegetables for us. This time, we strictly limited our enthusiasm to prevent further disappointment. The bag finally arrived. Coming back from his aunt's place where he picked up our treasure, Pema bumped into many relatives. Tradition obliges Ladakhis lucky enough to receive food from the lowland in winter to share with relatives – and in Ladakh "relatives" is a very extendable term; we later wondered, as well, whether these encounters were entirely coincidental. In any case, by the time the bag reached home, our treasure had been amputated. When I examined its contents, I was satisfied with what I saw, yet when Pema told me of how he had given away a great deal of food, I was surprised to find myself feeling greedy. "What is happening to me?", I wondered.

This was one instance among many when the conditions of fieldwork drove me to trespass my own sense of values. The difficulties associated with everyday life in Ladakh were compounded by feelings of isolation due to difficulties in communicating with people back home in Canada:

with 9 hours of time difference between India and Montreal, and perpetual internet and electricity outages, calling home proved to be a logistical puzzle. The emotional strain was made even greater by some difficult moments in the field. When coming back from conducting interviews, Pema and I were sometimes so saddened by what we had seen and heard that we could not talk for whole evenings. Silence was the only way to process narratives that were bringing us to reconsider our perspectives on birth, death, and how the in-between is lived. Conducting research with elderly people proved to be far more emotionally challenging than I anticipated. "According to Tibetan conception of the life cycle", Childs explains (2004:131), "old age is a time ideally devoted to attaining merit in preparation for the next incarnation". This is also a time, for many elders, to look back on their life and reconsider certain episodes, sometimes appeasing past wrongs through prayer. Perhaps there is something universal in the search for redemption as death gets closer and the sadness of looking back on one's own life with regret. These are delicate existential matters that, when confided, are profoundly moving. Because of all this, Pema is the only reason why I was able to complete my fieldwork with the objectives I had set out to achieve. I could not have done it on my own and this is why he will be a recurring character in this thesis. Over the course of my stay in Ladakh, we had many arguments over different issues, be it because of work or various mundane matters. But ultimately, Pema, for reasons I outlined in the Foreword, at the outset of the present dissertation, knew what it meant to be away from home.

A Parched Place into Thin Air

Bareness, harshness, and emptiness – these were the first words that came to my mind as I set foot in Ladakh for the first time. Upon landing in Leh, I found the landscape desolate and

quite different from the lush forests of the lower Himalayas, where I had previously spent many months. In Ladakh, where forests are nonexistent, the cold desert felt thirsty. The arid mountains appeared as if they were about to crumble. It seemed to me a strange place, one that had little in common with the planet earth I had been used to before.

More than a century ago, British Colonel Francis Younghusband recorded similar impressions. In 1889, as Younghusband crossed the Zojila pass, the gateway to Ladakh when arriving from Kashmir, what he saw was in sharp dissonance with mystical images of the Himalayan Shangri-la[12]. As the British had not established a permanent presence to monitor activity in this part of colonial India, the Colonel was on a mission to the high mountains of Ladakh in order to assess whether the Russian Tsar's army could invade India. In his epic travelogue, *Heart of a Continent* (2009[1904]:111), he observed: "As regards its natural scenery, it would be difficult to find any more dreary-looking country than Ladakh. Its mountains, though lofty, are not grand or rugged, but resemble a monotonous succession of gigantic cinder-heaps". Younghusband had just reached a territory whose harshness often strikes visitors with a certain disbelief at the mere possibility of human life here[13].

Once a leg on the Great Silk Road and a destination for prominent European explorers,

[12] When he reached Ladakh, Younghusband had already made his reputation as an ambitious explorer, having been the first European to cross the Mustagh pass in the Karakoram Range (Younghusband 2009[1904]).

[13] Bishop 2000[1989] made the argument that the Himalayas have often been described by Western travelers (missionaries, traders and explorers) as a sacred landscape and an archetypal utopia based on romantic Victorian myth and fantasy. Accounts of Ladakh by travelers differ in many ways, but frequently refer to the severity of the landscape, as reported by Jina (1995). For instance, an account by Father Hippolyte Desideri, Italian Jesuit missionary who travelled through Kashmir and Ladakh in the years 1710-1717, communicates the impression of a dangerous landscape, for example in his description of narrowly escaping an avalanche. British Lieutenant Henry Stachey's account of an expedition to Ladakh in 1846 speaks of harsh conditions in the high mountain passes, including extreme cold. Aggarwal (2004:114-116) notes that travel accounts often refer to Ladakh as barren, while its landscape, interestingly, is often described in terms of femininity, sterility, virginity, and wilderness.

Ladakh (or *la dwags*, which means "between the passes") is a high altitude region in the northern Indian state of Jammu and Kashmir. It is flanked by the two highest mountain ranges in the world, the Himalayas to the South and the Karakoram[14] to the North. Ladakh is located in the rain shadow of the Himalaya, which prevents the entry of the monsoon, leaving the region with scant annual rainfall precipitation of less than 100 mm in the upper Indus valley (Dame and Nüsser 2011:181). Agricultural production is based entirely on irrigation. The great majority of fields are supplied by glacier meltwater and accumulated snow[15]. It is no exaggeration to say that glaciers are the lifeblood of Ladakh, a metaphor that takes on a striking poignancy in aerial photographs that reveal the morphology of villages: they seem to have poured out of the mountains (see Figure 2). In this vast region, people have settled sparsely, in narrow valleys that form small oases in the cold desert.

In many ways, Ladakh's geography defies human comfort. Land elevation ranges from 2,700 to above 6,000 meters, with a mean altitude of about 3,000 meters. In summer as in winter, the sunlight can have a strong blinding effect. Ladakh experiences high seasonal temperature variation: in July and August the mean monthly values vary between 12.55 and 23.7 degrees Celsius, while in January and February average temperatures range between −15.6 and −5.5 degrees Celsius (Dame and Nüsser 2011). Summer days can be quite hot, with temperatures reaching 35 degrees Celsius. But Ladakh is a cold desert and even in summer the nights are usually much colder. Winter temperatures are quite cold and can drop to −50 degrees Celsius in the coldest parts of Ladakh, although the mean minimum temperature in Leh in January is

[14] The Karakoram is one of the highest mountain systems in the world, comprising of a group of parallel ranges that form a westward continuation of the Himalayas. Both the Himalaya and the Karakoram are themselves part of the larger Hindu-Kush Himalaya mountain system, which also includes the Pamir mountains.
[15] The Indus and Shayok, the main rivers crossing Ladakh, sustain only 10-15% of Ladakh's agriculture farming (Shaheen et al. 2013:24).

approximately −15 degrees Celsius. Temperatures drop noticeably as one ascends in altitude, a change which is all the more noticeable in the cold winter. Winter in Ladakh is a time of physical discomfort, primarily because of the minimal housing infrastructure: for the first time in my life, I realized the extent to which central heating, absent from Ladakh, changes an experience of winter.

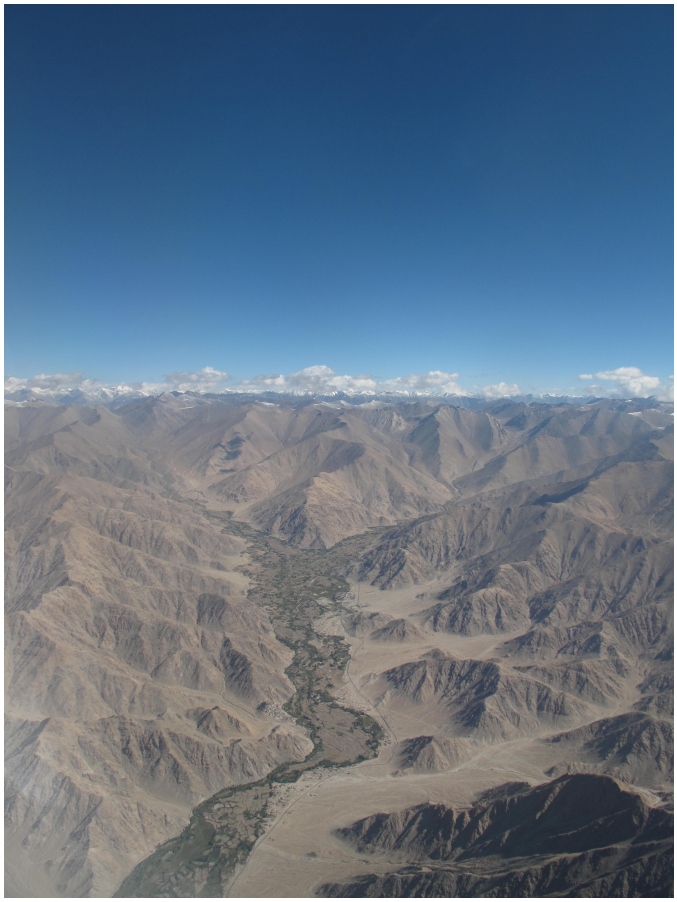

Figure 2. *Aerial view of a village in Ladakh (photo by author)*

The physical geography of Ladakh is characterized by two distinct types of terrain. Eastern Ladakh is marked by the high altitude plateau of Changthang (3,500-4,600 meters). Its western and central parts, by contrast, are dominated by mountain ranges and punctuated by valleys. In this terrain, the horizon seems to disappear, as one's gaze systematically stops at a wall of

mountains. But the terrain's varying elevations also provide for impressive perspectives on the landscape. Standing atop one of the summits on a sunny day, it is mesmerizing to watch the shadows of the fluffy cumulus clouds that punctuate the sky winding their way across the mountains.

The overall emptiness of Ladakh's terrain is striking, especially when approaching by plane. The bird's eye view reveals a collection of scattered settlements, while the valleys, tucked in between mountains, occupy only a tiny proportion of space in the vastness of a territory made up of desert steppes, steep mountains, and ice summits. Leh is the district with the lowest population density in India, with 3 persons per square km. The districts of Leh and Kargil, which together form the region of Ladakh, have a total area of 60,000 km^2, of which less than 200km^2, or 0.33%, is farmed (Dollfus and Labbal 2009:85). This leaves huge tracts of unoccupied land, most of which is barren. The 133,487 inhabitants of the district of Leh are scattered among 112 villages. In 2011, roughly 65% of the population lived in rural areas, whereas the number was estimated at 94% in 1981[16]. This significant variation over the past 30 years signifies an important trend of rural to urban migration, a question that will be further examined in this thesis.

Synopsis

The chapters of this dissertation examines mode of engagement with the environment and presents elements of the conceptual landscape that I have outlined above. Although the different landscapes (border, agro-pastoralist, sacred) do not have an equal presence in every

[16]Census of India 2011 http://www.censusindia.gov.in/pca/pca.aspx (accessed on August 26, 2014).

chapter, some of their components are always present. As I reiterate throughout the present dissertation, elements related to the role of Ladakh as a border area, to the sacred geography, and to agricultural and pastoralist activities, intermingle and produce Ladakh as a place. My discussion, which is framed within the overarching context of climate change, links perceptions of a changing environment to broader political, historical, and economic processes

Chapter 1 discusses the economic role of the extended family and polyandry, examining the social organization of production in Ladakh from a historical perspective, beginning in pre-independence India, and how varied use of the territory impacted the development of knowledge about the environment. Another, related theme of the chapter are the economic and political changes that have taken place in the region in recent decades, despite which Ladakh remains a harsh environment, especially for an aging population. I explore these issues through a discussion of life in winter, a defining facet of life in Ladakhi. The chapter concludes with a discussion of the generalized dissolution of extended family households in Ladakh and the resulting isolation of elders.

Through the recollections of Ladakhi elders, the second chapter presents the events of the war that followed the partition of India, as they unfolded in the Sham Valley in 1948. I examine how this first war with Pakistan was a moment of rupture in everyday life and marked the onset of profound changes in the region. In shattering the local cosmology, the war was a traumatic shock for the Ladakhi population. The war also proved to be a pivotal moment in other respects, as Ladakhi knowledge was mobilized for military purposes and has since been integral to the production of the Indian state in the region.

Chapter 3 examines the Indian state's taming of the Himalayas, exploring the production of the border landscape in Ladakh and its impacts on everyday life. Following the first clash with Pakistan and, later, the seizing of Aksai Chin by China, the Indian state increasingly asserted its control over Ladakh, which had become a geopolitically sensitive territory, by taming its landscape, chiefly through militarization and infrastructure building. The central theme of the chapter is that, over time, the military apparatus has become the dominant force driving development in the region, becoming a crucial source of employment in Ladakh (both directly and through economic offshoots) and, thus, a central actor in the local economy. The production of the state in the region has taken a distinct form, namely the co-optation of Ladakhis' ability to navigate the landscape for military purposes by forming the Ladakh Scouts regiment, with crucial consequences for demographic dynamics.

Chapter 4 explores the growing dissonance between the ideal of agrarian life and new demographic realities, as well as people's relationship to the sacred landscape. In Ladakh, where agricultural livelihood in an arid landscape has long been the basis for survival, traditional rituals associated with the local sacred geography, which aim to placate deities who watch over human prosperity, are of fundamental importance for the success of each farming season. But the rationalization of the outlook on the environment, as well as the current social and economic realities are translating into the growing abandonment of religious ritual practices related to agrarian work. In the context of the sacred landscape, this has angered the mountain deities, who exact retribution through adverse changes in the weather.

Pastoralism is the primary activity through which Ladakhis move through and know the mountains. Chapter 5 explores how in trekking the mountains with cattle, Ladakhi herders

have developed an empirical knowledge about the environment that includes the observation of glacier change over time. As today's aging generation of herders is increasingly unable to trek to the mountains, and as the way of life is not taken up by younger Ladakhis, many traditional mountain activities are abandoned and an important body of knowledge is at risk of disappearing.

Chapter 6 scrutinizes changes in Ladakhis' relationship with glaciers over time, examining both the practical and ritual dimensions of this connection. The practical dimension focuses on extinct practices of glacier cultivation in the Sham Valley and the recent development of artificial glaciers. The ritual dimension focuses on wedding songs and betrothal ceremonies that evoke glacier imagery. These folkloric traditions were once akin to religion and, I argue, in emphasizing the supremacy of glaciers as a source of life, they were a way for communities to celebrate and ensure the continuity of glacier cultivation practices. The exploration of the connection Ladakhis have had with glaciers and its change over time offers insights into issues of adaptation to climate change.

The thread of inquiry that runs through the chapters of this dissertation seeks to understand how Ladakhis relate to their environment in their practices and beliefs, as well as to describe what happens when this worldview encounters state-level rationalization processes, specifically those associated with Ladakh's role as a 'mountain fortress' for India. The questions that guide this research work attend to the entanglement between nature, moral values, and the lived experiences of Ladakh's recent history, both in how people perceive the environment and how they engage with it. What does it mean, when we ask an elder what changes have come about with the environment of Ladakh and this person, like many others, starts his account by

referring to the invasion of Pakistani raiders in the aftermath of the partition of India? What does it mean when a local astrologer explains the increasing instances of natural hazards and the recession of glaciers as an outcome of land partition and the dissolution of community working arrangements? What does it mean when elders are holding two parallel discourses when referring to environmental changes, one that attends to the concrete material dimensions of the environment, while the other focuses on the less tangible and more moral dimensions of the environment? This dissertation attempts to show how the encounter between differing conceptions of *the* environment can result in critical changes to a society's engagement with *its* environment. How do we account for the disappearance of practices that once nurtured glaciers when they are most needed?

Chapter 1
The Worries of Old Man Winter

After crossing a river don't forget the bridge
After gaining maturity don't forget your parents
Tibetan Proverb[17]

It is really good times for the children these days, but for the old people it is very miserable and sad, because they are all alone. – *Tsering Dolma, Nye village*

Entering the Sham valley by following the Indus upstream, the visitor is greeted by the magnificent sight of the confluence of the Zanskar and the Indus rivers (Figure 3). Although the rivers play a marginal role in local agrarian activities, their importance to the region is crucial in other respects. Originating in the Tibetan Plateau, the Indus carves through the landscape of Ladakh before continuing its course towards Pakistan, where it constitutes a major source of water. In India, it constitutes a major source of water for the Indo-Gangetic Plain. The river is strategically important for both India and Pakistan. Despite their troubled relations, both countries continue to observe the water-sharing stipulations of the bilateral Indus Waters Treaty, signed in 1960. For its part, the Zanskar River, is a tributary of the Indus. When frozen in winter, the river constitutes the only passable thoroughfare for the inhabitants of Ladakh's Zanskar area. In January and February, when winter is at its most severe, the frozen river allows for travel on foot. Zanskarpa call the frozen river Chadar or "Ice Way". The journey is long and risky, however, as it winds along the Zanskar gorge over a distance of 120 kilometers and takes about a week to complete. Nevertheless, the population's religious, health, educational, and economic needs impel significant numbers of people to

[17] All the proverbs that serve as epigraph for each chapter are taken from Lhamo Pemba (1996)

undertake the hazardous trip. From the convergence of the two rivers, a 2 km trek upstream along the Indus' immaculate, gray-colored sand banks, leads to Nimoo village, some 30 kilometers east from Leh. The water, which turns brownish in summer, when the surrounding glaciers are in their seasonal melt, slowly becomes turquoise in autumn, before partly freezing in winter. Largely free of the pollution that accumulates further downstream in the Indo-Gangetic Plain, here the Indus is pristinely majestic.

Figure 3. *Confluence of the Zanskar and Indus rivers (photo by author)*

Winter had slowly started to creep in in November, making all life activities increasingly more difficult day by day. The physical discomfort, however, was at least partly offset by the charms of the beautiful boreal landscape. By early January, the summits around had become white and the fields started to be covered with snow (Figure 4). With this winter landscape came a

strange silence. The ambient noises had toned down, as if absorbed by the white blanket. The winter cold seemed to slow the pace of all activity. Time appeared to stand still. Small Nimoo village felt quasi-abandoned. Elders sitting in the warmth of the afternoon sun, typical of a Ladakhi winter scene, were just about the only souls to be seen. Of those who had not deserted Ladakh for winter, the villagers were taking refuge in their kitchens, the only comfortable part of a Ladakhi house at this time of the year. Even Leh, the capital city, had started to feel like a ghost town as soon as the end of November.

Figure 4. *Winter landscape in Nimoo and the frozen Indus (photo by author)*

The emptying of Ladakhi villages in winter is a new relatively recent development that has become increasingly pronounced over the past decades. In many ways, it epitomizes people's changing relation to Ladakh as a place, which forms the object of the present chapter. I argue that winter is an immutable imperative of life in Ladakh that continues to determine the

experience of Ladakh as a place, notwithstanding significant political and economic changes in the region since the independence of India. A central point of my discussion is that, by encouraging a shift from extended families, characterized by polyandrous marriage, to nuclear families, these economic changes (further discussed in Chapter 3), have worsened the life conditions of Ladakhi elders, whose situation becomes all the more difficult during the harsh winter months. Another, related point I make in this chapter is that economic change has affected Ladakhi household structure. Until a few decades ago, traditional household structure was central to the social organization of production and to Ladakhis' engagement with and knowledge of the environment. As we will see in this and the following chapters, however, the economic restructuring of Ladakh and the resulting changes to household structure have had a significant impact on people's relationship with the surrounding environment. Both these points are fundamental to understanding Ladakhis' perceptions of a changing environment.

The study of place has been developed in recent years along a number of approaches within anthropology: authors have studied localities as embodied, gendered, inscribed, contested and as redefined by processes of globalization and transnationalism (see Feld and Basso 1996; Gupta and Ferguson 1997; Low and Lawrence-Zùniga 2003). In exploring the variegated relationships between peoples and places, these studies have demonstrated how culture influences the way people comprehend the world and engage with places. This scholarship has brought attention to the multivocality of places. This multivocality, however, needs to be problematized further in terms of temporality in order to account for both historical change in the experience of place, as well as how this experience varies throughout the course of people's lives. Sivaramakrishan (1999:35) suggests that using place as a starting point of analysis "helps

us understand the spatiality of social life and power, by exploring the relations between time, space and regionalization, and between temporal and spatial matrices". The temporal and spatial matrices I explore in this chapter are characterized by a rhythm closely linked with the cycle of the seasons (see also Sillitoe 1996). I contend that thinking of winter in Ladakh as a lived experience, an experience that has both material and psychological implications, is central to understanding Ladakh as a place, Ladakhi identity, and the generational tensions that today color Ladakhi family and social relations.

The population movements redefining Ladakh today are varied. Many young people pursue studies elsewhere: school-age boys and girls are increasingly sent to boarding schools in Leh and, later, students spend years in college and university outside Ladakh, as well[18]. Moreover, while government employees, in particular teachers are posted to various locations throughout the region, many others, especially those working within the ever-expanding government bureaucracy, have to relocate to Leh. Men employed in the army, as we will see in Chapter 3, spend most of the year outside their households. All these developments have significantly contributed to change village dynamics and the effects tend to be more evident in the harshness of winter. Overall, the reality of employment today brings conceptual problems for a discussion on the way Ladakhi engage with Ladakh as a place. It became clear early in my fieldwork that there was a wide range of different experiences and perceptions of Ladakh as a place among Ladakhis and that these differences were particularly pronounced along generational lines.

[18] Literacy rates in Ladakh increased from a mere 11% in 1961 to 80% in 2011.

Key to the spatial knowledge which informs much of my analysis in the present dissertation, is also the household unit and its link to the social organization of production (see Thornton 2008:133-136). The organization of work and spatial knowledge in Ladakh are profoundly social and linked with community and family arrangements. While Gow (1995) has demonstrated how kinship can be inscribed in the landscape through land cultivation, I seek to show how extended family arrangements and collaborative work were once crucial to the way Ladakhi engaged with the environment. Ongoing changes in household arrangements have now, too, changed how Ladakhis relate to the local landscape.

In order to situate these spatial relations and their change over time, as well as the resulting implications for the way Ladakh is lived as a place, I will examine the socioeconomic dimensions of life in Ladakh, from British colonial India onwards, focusing my discussion on various life difficulties as they are lived within household units. I thus aim to trace a portrait of a place undergoing change, politically, socially and economically, but also conceptually, in how people perceive themselves, their surroundings, and the relations involved. This portrait will then serve as the basis of my discussion for the following chapters.

Before the Great Hindustan

When the lord indulges in lawlessness
To whom does one cry out for help?
Tibetan Proverb

Nimoo village is located on the bank of the Indus and thus along the same main road that in colonial times was taken by travelers, caraveners, and officials on duty heading to Leh or Kargil area and beyond. One of only two roads that connect Ladakh with the rest of India, the

National Highway 1D (NH1D) – that nonetheless feels like a rural road in this part of the country – crosses the village, having been paved over what might once have been a bucolic settlement, connecting the town of Leh to Kargil district. Leh and Kargil districts are Ladakh's two major administrative divisions, which have been established in 1979 (see Map 2). Leh's population is predominantly Buddhist (77%), while Kargil's comprises a Muslim majority (80%), as per 2011 India census estimates. The second road that connects the region to the rest of India links Leh to Manali, which is 480 km away, in Himachal Pradesh state. By November, both these roads are closed when snow covers the high mountain passes and they open again only around May. During the winter, therefore, Ladakh is accessible only by plane. For many, escaping Ladakh for the winter before the roads close is of great concern[19].

When India became an independent country in 1947, the economy of Ladakh was based largely on subsistence agriculture and livestock rearing. Indeed, regardless of the major economic restructuring the region has undergone since 1947, family farms remain the primary producers of food, for both personal consumption and sale (Dame and Nüsser 2011:186). Barter was also a crucial element of local economic relations and was essential in providing households with necessary supplies. In the Sham area, the trade of local wool for various commodities from Kargil, Suru Valley and Baltistan, as well as Changthang and Gertse in Tibet, was fundamental to the Ladakhi household economy. Each of these occupations – cattle rearing, agriculture, trading – constituted a way of engaging with Ladakh as a place.

[19] This is especially true since the price of flight tickets has seen a sharp increase recently and was, in fact, the source of public protests when I was in Leh. In 2012-2013, the price of a one-way ticket increased from about 8,000 to 30,000 rupees from Delhi to Leh and from 6,000 to 35,000 from Jammu to Leh.

Today, as in the past, Nimoo village is an almost inevitable stop for anyone travelling to the Sham Valley. In the era of trade caravans, the village was a supply point where travelers would buy various provisions for themselves and feed for their animals. And, as a busy bus transit point, Nimoo maintains this function to some extent today as several stores cater to travelers, who rarely stop here longer than a meal and some quick shopping. Buses and trucks come and go, their old engines, leaving behind them huge clouds of thick dark exhaust, which uneasily gets dissipated in this high altitude thin air. Adjacent to the village is a vast and charmless military camp. None of the villagers seemed to remember when it was built, though certainly long enough ago to have become an integral part of the landscape today.

Behind this hectic scene is a village filled with memories of the past. Tashi Jorgais[20] has lived all of his 91 years in Nimoo. When he was young, the village's population was a fraction of its present size, which today stands at about 1,100 inhabitants, as per the census of 2011. As they do not account for patterns of mobility, these numbers, however, are only a rough approximation of the reality on the ground, especially in winter. Tashi Jorgais was already a married man when India gained independence in 1947. Sitting outside by the mud brick wall next to his house, with his brown *konchas*, the traditional Ladakhi long woolen coat, his turquoise earring, and his long beard, he really seemed to have come from another era. Peeking out from under his wool hat was his *chuti*, a small ponytail, thinned by old age. The old man still wears his hair in the style of the old days: hair shaved at the front and long at the back. Hair was once a status marker distinguishing peasantry from nobility, as only members

[20] Ladakhis, like Tibetans, generally do not have surnames, but rather two given names chosen by a lama soon after their birth. When talking about someone, people sometimes use the person's two names but generally, they will use only one of the person's names, often preceding it with a designation such as *abi* (grandmother), *ani* (aunt), or *meme* (grandfather).

of the royal lineage could wear their hair entirely long, a tradition that many Ladakhis elders still observe.

Tashi Jorgais is old and he feels old: "I have lived beyond what is needed", he told me. He was tired of being trapped in a body no longer strong enough to cope with even the most mundane matters. "My eyes are so weak now, I cannot even see your face", he continued. Loss of eyesight affects both young and old in Ladakh, both because of untreated cataracts and the long terms effects of exposure to intensely bright sunlight[21]. Tashi Jorgais' wife, Tsewang Spalmo is only a few months younger than her husband and is equally blind. "Both of us are of the same type", he said. Both have survived through very difficult times and both are waiting for death to take them. Although the years have not stolen Tsewang Spalmo's ability to speak, her desire to do so was not apparent. She sat silently next to her husband. The couple's attitude towards death reflected that of many elders I encountered throughout my fieldwork. It never failed to leave me with a sense of sadness. The pain of aging in this harsh environment and the consciousness of inevitably becoming a burden for others seem to translate into a readiness for death. Speaking with these elderly people, it was difficult to remain indifferent.

Soon after our arrival, the couple's daughter joined them. She is in her 70s and looks as old as her mother. The climate of Ladakh, with its fierce, high-altitude sun, wrinkles the inhabitants' skin faster than most other environments. Besides, the difficult living conditions they experienced under autocratic, pre-Independence local rulers have left scars. As an elderly lady once told me "we saw so much hardship in our childhood that we became old really quickly".

[21] Ladakh receives more than 300 sunny days per year. With a combination of high altitude and low humidity, the radiation level in Ladakh is among the highest in the world (Angmo and Heiniger 2009:9).

And, as I was going to learn throughout my fieldwork, with aging comes a profound feeling of loneliness, a situation as true in Ladakh as in many places in the world. "I have 7 children", explains Tashi Jorgais, "and there is no one nearby, beside one daughter, who lives in Nimoo". The rest of his children live in other villages and it was easy to deduce from my conversation with Tashi Jorgais that they rarely visit their parents.

Tashi Jorgais's life, in his words, has been the life of a sad man burdened by perpetual debts, a recurring narrative among the elders of Ladakh who once lived under the rule of the Maharaja of Kashmir. As a result of a long history of autocratic regimes, until two generations ago, Ladakhi farmers were inescapably "born in debt, lived in debt, and died in debt" (Sheikh 1999:345). Little is known about the economic conditions under which Ladakhis lived before the Dogra ruler, but observations by missionaries and British officials suggest that, although Ladakh was not an egalitarian society, Ladakhis seemed to be relatively more materially comfortable (insofar as material comfort can be said to characterize a peasant society of this time) than they were after the Dogra dynasty took control of the region in the 1830s (Sheikh 1999:342)

Under the rule of the kings, Ladakhis had been taxed according to dwelling, because most Ladakhis earned revenue through trade and custom duties. When the Dogra of Kashmir took control of Ladakh, taxes started to be calculated on the basis of landholding, something hat was made possible because of the development of land surveys (Aggarwal 2004:35). The Dogra ruler then imposed an additional, fixed levy, which increased an already heavy taxation system (van Beek 1996:105). The tax load was crippling and had to be paid partly in cash (*bhap*) and partly in food grain and firewood (*jines*); these goods were stored in state-run supply depots and

sold to trade caravans or distributed as rations to government employees (Rizvi 1996:87). While forced labor (*begar*) already existed under the rule of the Ladakhi kings, it became a systematized feature of life under the Dogra rule. Peasants were forced to fulfill *begar* obligations, including work as porters, herders and workers for the state, the monastic estate, and for official and non-official travellers (see also Aggarwal 2004:35; Grist 1992; Rizvi 1996:87). The Dogra authorities would provide travelers with a pass (*lamyig*), which entitled the holder to request *begar* services and buy stocks from village depots along their way. Each house had to be ready to supply a man and an animal in order to fulfill *begar* carriage obligations. Villages were required to supply transport to passing officials according to a rotational (*res*) system. This work, as well as the collection of taxes for the *tehsildar*[22], was supervised by local officials, who often took advantage of the system to enrich themselves at the expense of peasants. Intimidation, mistreatment, and violence perpetrated by officials was generalized. In 1860, British Captain Knight, while visiting Ladakh, wrote that the mere sight of strangers was scaring local people, a behavior he linked to the bad treatment perpetrated by the Dogra army (Sheikh 1999:342). While such observation is not found in other colonial accounts and might be overplayed, it nonetheless highlighthow how abusive was the Dogra rule.

Begar obligations left lasting marks on Ladakhis' memories. Several elders I spoke to still recall with incredulity how when the British travelled in the region, Ladakhis had to carry individual palanquins bearing not only the *sahibs*[23] and their spouses, but also their dogs. The work's physical strain was exacerbated by abuse on the part of government officials, who would beat the Ladakhi porters with rods if a palanquin did not stay straight in the steep mountain paths,

[22] A *tehsildar* was an administrative revenue officer responsible for tax collection in a given *tehsil*, or administrative division.
[23] In pre-independence India, "sahib" was a deferent form of address for men of British origin.

for example. Overall, the Dogra rulers are remembered locally as greedy for both territory and resources, as well as the often brutal imposition of forced labor (Aggarwal 2004:35; Bhan 2014:29; Bray 2009:49; Gutschow 2004:24; Grist 1992). Elders in Ladakh today are unequivocal about the hardships of this period in local history, which they roundly describe in terms of exploitation. "How miserable it was", remembers Tashi Jorgais. "We would come back from *begar* work at night in winter and it was so cold that our beards and mustaches would be stuck with ice".

Due to the taxation system implemented by the Dogra ruler, villagers were consigned to a constant state of poverty. The system generated a vicious cycle of debt, in which peasants were forced to borrow from richer families in order to meet tax levies, at interest rates as high as 25%, and it was common practice for moneylenders to treat debtors as bonded laborers. The peasantry's living conditions were dire. Accounts of hunger are common among Ladakhi elders and as a local proverb goes: "July is the time when flies collect around your mouth. It is the time to say, 'what shall I eat', and not 'what shall I wear'" (Sheikh 1999:346). The leanest time of the year was during the summer months, when stocks were exhausted and the new crops had not yet matured. The harsh conditions under the Dogra rule is also reported by colonial British sources: both the explorer William Moorcroft (1820) and army engineer Alexander Cunningham (1847) reported that food supplies in Ladakh seemed insufficient, as grain was imported from other parts of India (Sheikh 1999:343). Resentment is still palpable among Ladakhi elders who experienced the hardships of the period. In the words of Tashi Jorgais, "As we did not know how to read and write, we Ladakhis were used and made fools of by the Khachul [Kashmir] government".

Being caught in the vicious circle of debt had an impact on many dimensions of village life. For the people of Sham, trade was, therefore, as important a part of the local economy as were agricultural activities, whose economic contribution was necessarily limited by the small dimensions of local pastures, which prevented families from keeping large numbers of animals. Barter supplied villages with such products as wool, butter, salt, meat, apricots and tea leaves. Bartering also functioned within villages, when traders would return from their excursions (Rizvi 1999). But, as we will see in the next chapter, much of the traditional trading activity came to a halt following territorial conflicts with neighboring countries after India's independence.

To pay his due, Tashi Jorgais had to borrow from the Nangso[24] house, a well-off family of Nimoo, and pay back in kind with labor. He was not the only one: people would come from villages kilometers around in order to take loans from the Nangso house in the form of grain. When I asked Tashi Jorgais if he ever went to trade in Tibet, as many families in Sham did before the closing of the border, his answer was clear:

> How could I go on trade when there was no *phe* [roasted barley flour] to eat in the house? We were poor. How could I see Changthang when the rich [moneylenders] would take us to clean their toilets and dig their stables almost everyday? The people who would give us loans would put us to work all the time. In those days we were beaten and had no time for ourselves. The rich would not pay us even an anna[25] for working all day except for a meal once in a while. We had to work for the rich all spring and autumn.

As made clear by Tashi Jorgais, once one's life was caught in the vicious cycle of debts, freedom was difficult to regain.

[24] The Nangso were the king's formal treasurers (Ramsay 1890, cited in van Beek 1996:121).
[25] *Anna* is a now defunct monetary unit that equalled one sixteenth of an Indian rupee.

Under the rule of the Dogra maharaja, governance from afar was a defining feature of the state. The *tehsildar* was permanently based in Skardu[26] and came to Leh only for the summer months. But the authority of the Dogra ruler nonetheless felt real to the villagers who knew an official visit meant trouble for them. Tashi Jorgais recalls how when the news would reach that the Wazidi Amla[27] has crossed the Zojila pass and had reached Kargil (about 200 kilometers away), every villager was put to work to prepare for his arrival, while those who refused or were too slow would be thoroughly beaten with sticks. Peasants had to fill the depot of Nimoo with dairy products, wood, and sacks of grain. To find enough firewood – the precious combustible indispensable to surviving the winter – to pay his *jines*, Tashi Jorgais had to walk until the gorge (*rong*) of Chilling and carry stacks of wood on his back over a distance of more than 20 kilometers. The trees of Chilling had large trunks and thick roots, since they were, as Tashi Jorgais noted with desolation, the trees "which had been there since the time of the *abi-meme*"[28]. Thus many decades of ecological practices were overturned in order to satisfy the oppressive levies commanded by the Dogra ruler and his officials.

Elders' discourses today suggest that scarcity made all resources invaluable. Many spoke as if each grain, each piece of firewood, each edible plant was indispensable to the survival of the family unit. In the testimonies of those who lived through this era the contrast with postcolonial life could not be more striking between the time when authorities unscrupulously

[26] Skardu is located in the Gilgit-Baltistan region of Pakistan.
[27] The Wazidi Amla was the head of the Dogra revenue administration, a position similar to a deputy commissioner today.
[28] "*Abi meme thus*" or "the time of the grandmothers and grandfathers" is an expression often used by Ladakhis to designate something dating to previous generations.

divested already destitute people of precious resources and the postcolonial era of plenty, when "gifts from the great government", such as subsidized food rations, changed people's lives.

Far from being elusive, as is the structural violence of bureaucracy that characterizes the modern state (see Gupta 2012), the violence of the Dogra state was not only physically real, it was also all the more inescapable because often perpetrated by one's neighbors. Tashi Jorgais still remembers the names of the four local officials in Nimoo and to which village and house they belonged. "In those days, there was no police and all of that which is there now. These four people were the ones who would take any form of decision, especially who would be beaten", explained the old man. Officials were free to exercise power at their discretion when transacting with villagers. According to the nonagenarian, the four local officials and their workers "would take huge amounts from people by cheating them". Fighting against these practices seemed futile. "What could have been done, as there was nobody to say anything against all this?", asked the old man. Commenting on Ladakhis' resilience to this abuse, Gompertz (1928) and Asboe (1947) attributed the lack of resistance on the part of the local population to Buddhist beliefs in non-violence and a "fatalistic view of life". Reading the situation against the backdrop of prevailing abuse and abject poverty, however, suggests that both intimidation and the daily effort required to ensure basic subsistence in such conditions may have been important factors in villagers' resignation. I will return to this question further below.

At the local level, peasants found various ways of skirting around these abusive practices, for instance by removing weights from the scales or by "bribing" officials employees by putting treats such as chapatti or *kholak* (parched barley flour mixed in butter tea) on top of their bags

of grain. But further repression was always a distinct possibility. In order to be at the service of *sahibs* and government employees arriving from Kashmir, every household in Nimoo and surrounding villages had to send one man to stay at the depot for a month on a rotational basis. Conditions at the depot were arduous: Tashi Jorgais remembers how the men could barely keep themselves warm at night with the officials' horses' saddle rugs. It was during one of these rounds of depot duty, Tashi Jorgais recalled, that a fellow villager, exasperated by fatigue, flung the luggage he had been forced to carry against a rock. He was heavily caned for his insubordination. "Had it been just this [forced labour]", confided Tashi Jorgais, tears streaking the wrinkles on his cheeks, "and not getting beatings, it would have been tolerable. But we had no choice". Thus, although Ladakhi villagers offered a measure of both overt and covert resistance, they felt on the whole powerless to oppose the systematized physical and psychological abuse inflicted by the state. Decades later, the beatings and humiliation they endured are still open wounds to their dignity.

Recalling the abuse of the old days, Tashi Jorgais made a clear distinction between pre and post independence India: "all this was before the great Hindustan[29]", he said, in a phrase I would hear time and again during my fieldwork. "After, with Pandit Nehru", he continued, "things changed and today the times are good and comfortable". There is a distinct feeling shared by Ladakhi elders that the Indian state extirpated them from misery. State development initiatives, including road building and other infrastructure projects, poverty reduction schemes, such as food subsidies, as well as new employment opportunities in the government bureaucracy and in the army are frequently referred to as gifts from the "great"

[29] Many elderly Ladakhis say "Hindustan" rather than "India".

and "generous" government. This is not overly surprising, since it was only after Independence that Ladakhis first experienced governments that paid attention to the development of the region, as opposed to those that had unscrupulously taxed the population. Thus it is not surprising to encounter the perception among many Ladakhi elders today that "one day, the Great Hindustan came".

Tashi Jorgais also talked about how living in a village by the main road led him to provide food and shelter for Ladakhi traveling traders. Villagers from Chilling[30] and surrounding areas, reputed for their skills at bronze craftwork, often made their way towards Leh in winter in order to supplement their meagre incomes by selling their wares. Despite their own destitution, Tashi Jorgais' family, as well as others in Nimoo, would provide shelter to travellers who dared to venture out into the harsh winter environment. Nimoo households gave the passing traders – whom Tashi Jorgais remembers as "so poor" – food, hay for animals, and even firewood, an invaluable resource in winter. "How could they carry wood to burn, as there was so much snow in those day", asked the old man. "Look at what fell these last days", he remarked, "You cannot even call this snow!" Ladakhi elders' insistence that snowfall has declined since their youth is a theme we will revisit in later chapters. Many told me that winter's white coat was now much thinner than it had been in earlier times.

As we sat under the midday sun, Tashi Jorgais paused to spin his prayer wheel, humming "*om mani ped me hum*", a mantra that resonates throughout the mountains of Ladakh. His wife Tsewang Spalmo counted the beads of her rosary, praying silently beside him. "I did a lot in my life", added Tashi Jorgais in a trembling voice. Thinking back at all he went through, he

[30] Chilling is a village located towards the Zanskar area, in the Southern part of Ladakh.

seemed filled with nostalgia. “And then we went under Hindustan, and the road got built”, he continued. “Since then these people never came here, as they took the bus to Leh from Nimoo without stopping overnight”. Paradoxically, therefore, while development has connected Ladakhi villages more than ever with the outside world, for some, it has also brought solitude in its sway, leaving behind memories of a past era, when isolation drew people closer together.

As we will see next, another important factor in the growing isolation of elders is the partition of land among siblings, which is directly related to the economic restructuring of Ladakh since the independence of India. At the household level, there has been a steady shift from joint to nuclear family arrangements. Ancestral land is progressively divided and family lands splinter into anonymous fragments. Many see in these developments the sad ending of a once ubiquitous communality. As Tashi Jorgais elegantly put it, “although we had lots of land, we had just a single apple tree. Later, as land got divided, even these apples were no longer ours.”

Faced with repeated accounts of hunger and mistreatment, one is tempted to wonder how it was possible for villagers to endure life under the Dogra rule and why the population seemingly offered so little resistance. I will discuss both these themes below, but first it is necessary to discuss another driving force that holds sway over the organization of life in Ladakh: winter.

The Rule of Winter

Winter comes, leaping like an enemy
Spring comes, melting like fruit juice
Tibetan proverb

In Ladakh, the physical features in the rocky mountain summits act like landscape markers, or sundials, that indicate changes in the seasons. In some villages, people follow these markers to determine when to perform particular steps of land farming and if no particular features are found in the summit, people will climb and pile stones to build these sundials (*tegor*). In Nimoo, one such natural marker is formed by three sharp peaks in the rocky summits that bound the Indus to the south of the village. This feature is named "place of the death calf". According to elders, back when winters were harsher, colder, and brought significantly more snow than today, many calves would die before spring came. When the sun begins to set to the west of the three peaks, calves are said to no longer die of cold. It is also said that from then onward, as the weather gets warmer, the lives of old people become longer. Winter, according to Ladakhi elders, was so harsh in the past that it constituted a critical time for vulnerable humans and animals alike. Children were also particularly at risk: accounts of child loss, still painful several decades on, marked the winter memories of many informants.

"The regular sequence of the seasons", Strauss and Orlove (2003:3) tell us, "serves as an image for the steadiness of time's passage and the permanence of the fundamental parameters of human existence". In Ladakh, winter is paramount among these parameters, as activities during the rest of the year to a great extent revolve around preparations for winter, which in practical terms means ensuring that resources are sufficient for survival from one harvest to the next. Winter, thus, is a central dimension of lived experience in Ladakh and, consequently, a defining feature of Ladakhi identity. In many societies, ritual practices accompany the annual cycle of the seasons. As Peterson and Broad (2009:72) note, anthropologists often include details about the climate of their study area, including such elements as average rainfall,

seasonal variation, and weather anomalies, for example. However, physical characteristics, including climate, are rarely analyzed in the literature in relation to cultural elements and identity issues. The literature on the Indian Himalayas and Ladakh in particular forms an exception in this respect, as authors have explored the ordering of social time through collective activities and ritual practices in the region (Bastien 1983; Dollfus 1989; Gaborieau 1982; Leavitt 2000; Pant 1935).

Still, the phenomenological dimensions of climate and seasons remain to be explored. Weather is often discussed exclusively in terms of meteorological phenomena. Taking a sensorial approach, Low and Hsu (2007:siii) propose a phenomenology of wind in order to study "the primordial human experience of being immersed in the winds". In the same way that wind affects feelings and penetrates the body, physically and mentally (Low and Hsu 2007:S4), winter constitutes a bodily experience and awareness of its impending arrival has psychological ramifications for Ladakhis. Indeed, it is curious that winter has been so rarely discussed as a life imperative in the context of the Himalayas, where it has such a far reaching impact on the organization of life and work, and where its physical effects on people are so significant. In an article that foreshadowed a later interest in anthropology for weather and climate, de la Soudière (1981) outlined what he termed the "elements for an anthropology of winter". Reflecting on the Massif Central region in France, de la Soudière observes a collective mobilization and solidarity in villages confronted with the harshness of winter, a winter that "must be fought like an enemy" (de la Soudière 1981:24). De la Soudière's linking of collective behavior to the cycle of the seasons provides an interesting perspective from which to consider the strong sense of community that once prevailed in Ladakh and which elders today long for.

Certainly, a strong sense of community helped Ladakhis to overcome the anxieties of living under the rule of the Dogra Maharaja and the rule of winter. Ladakhis' minimal resistance to the autocratic Dogra rule must also be considered in light of the imperative of winter: the efforts required to "fight winter" left people with little time or energy with which to contest their overlords. This provides a more likely explanation than do religious attitudes as to why Ladakhis offered a less pronounced level of resistance towards exploitative taxation practices than has been noted for other contexts in Asia (see Scott 1987).

Ladakh experiences four distinct seasons of unequal length. Spring (*spit-la*) is short, lasting from April through May; summer (*yar-la)* begins in June and lasts until September; autumn (*ston-ka*) encompasses the months of October and November; while winter (*rgoun-la*) sets in in December and holds until March (Dollfus 1989:25). But, more often than not, people speak in terms of two seasons, winter and summer, or, perhaps more accurately, winter and non-winter. The latter is characterized by preparation and stocking up to survive the former, when resources become scarce as the land slowly freezes. As incomes from construction work and the tourist industry are highly season-dependent, the year also often seems to be divided between looking forward to summer revenues and then anxiety about the upcoming winter.

Winter is not unlike a long sleep. Time stands still and a calm prevails, seemingly broken only during new year festivities (*losar*). But winter is an embodied experience: people experience a kind of torpor, as the extreme cold forces them to take shelter in search of warmth, curtailing most activity to a minimum. Ladakhis spend their days in the kitchen, next to the fireplace, where they converse for hours. The harsh conditions leave lasting marks, too: rheumatisms related to cold are a common health problem. When people do venture out for any extended

amount time, they do so on warmer, sunny days, when they can sit comfortably in the sun, spinning wool and mending clothes. The one word that is on every lip in winter, as Dollfus (1989:26) aptly notes, is *tangmo*, which translates to "it is cold".

Today, however, preparations for winter are changing. In the past, they began after the threshing and winnowing of harvested grain. The preparations included diverse activities: grinding grain into flour, fixing houses and the irrigation channels, collecting various edible plants, stocking grass for the cattle, gathering firewood and dung in the mountains, drying apricots, vegetables and cheese under the sun, and burying tuber plants. In the past, when mobility was highly limited, villagers would also make a trip to Leh before winter in order to stock up on supplies not available in the villages. Today, the cash economy and access to market commodities have reduced the time necessary to prepare for the winter season. In more remote villages, however, getting ready for winter survival continues to be a time – and effort – consuming undertaking.

My discussions with elders about the past made clear that saving sufficient resources to get through the next winter was an ever-present concern in the context of the Dogra rule and its onerous exactions. How much grain would be confiscated, how much would be left? Would the food stored away be enough to go through winter? How will I feed my children? These ubiquitous worries of Ladakhi villagers' winters represented an additional, psychological strain on people who had to endure the physical challenges of the cold season beside abusive treatments by state officials and moneylenders. Commenting on today's decreased snow precipitation, many elders told me how difficult it was in the past to take animals to the pasture in winter, because the snow was so high that the animals would have difficulty walking.

Indeed, the snow could pile up so high that animals would sometimes manage to climb onto the rooftops of houses.

The arrival of winter is still a source of concern today, though in a different form. Inasmuch as many Ladakhis were astonished to see me, a foreigner, staying through the Ladakhi winter, I was surprised to learn that many young Ladakhis have only rarely, if ever, experienced the course of an entire winter here: many children are sent to boarding schools in other states at a very young age and those who leave later, when they go to college, in general prefer to avoid visiting home during the winter. Spending winter in Jammu or Delhi has in fact become a popular option among younger Ladakhis, arguably taking on an aspect of social capital. By contrast, spending a winter in Ladakh means hardship. It means, among other things, not having access to fresh fruits or vegetables and undergoing the sometimes intense physical discomforts of such ubiquitous Ladakhi winter chores as fetching water from a frozen stream, washing clothes by hand in frigid water, feeding the *bokhari* with wood throughout the day, shivering at night despite sleeping under a heavy pile of blankets, and, worst of all, in my experience, bathing in the winter cold. Besides, especially for those who do not have access to farm produce, life in winter is quite expensive. The cost of a kilo of any vegetable (if it happens to be available at all) can be up to fivefold its cost in the summer (see also Dame and Nüsser 2011). For families like Pema's, who do not have a tree plantation, buying wood for the *bokhari* is a major expense. Indeed, we experienced it first-hand during the winter: when our supplies ran out, in late January, we needed to restock our firewood, but locating a source, finding a place to chop the logs to a size that could fit in the *bokhari*, and hiring help to carry the loads over the 200 meters of very uneven ground separating the road from the house all proved to

be a logistical nightmare that stretched over many days and cut heavily into my field research budget. Such conditions certainly constitute a strong incentive to spend the winter in more agreeable conditions outside Ladakh – for those who can afford to do so.

In many ways, the increasing depopulation of Ladakh in winter is fracturing social time, which, in Durkheimian terms, "consists of 'collective representations' or 'categories' that derive from and reflect the groupings and varied 'rhythms' of social life". For Durkheim, Munn (1992:94-95) explains, such categorical divisions (days, seasons, etc), form a meaningful, qualitatively varied, rather than an abstract, homogeneous temporality". In Ladakh, summer is a time of collective work. Winter, despite its harshness, is a time of making the best of a difficult situation: enjoying the company of family, friends, and neighbors, talking for hours while drinking *chang* (a homemade barley beer) or butter tea. Without this dimension of social life and the rewards of social cohesion, winter is an exclusively arduous experience.

In the Shadow of the Golden Years

Aging is fraught with difficulties in a place where the infrastructure is poorly developed – despite substantial state investment, as we will see in Chapter 3 – and where pension and institutional safety nets are minimal. In addition, economic restructuring has contributed to increasingly isolate Ladakhi elders. The case of my host family in Nimoo is a telling example. The father, Rigzin, and the mother, Diskit, both in their late 60s, were visibly poor. Although they were living alone, two months before my arrival, their daughter-in-law, Angmo, had moved in. Her husband was serving in the army and had been posted to a far-off town in Ladakh. She had a two year-old daughter and a newborn baby. While she was normally living

in Leh where she was a government worker, she was now spending her maternity leave with her in-laws. This way, she could ease the burden of household work for the elderly couple, for whom everything from household chores to taking care of their sheep and goats was all the more exhausting in winter. Fetching water in winter is also no easy task, especially since hand pumps freeze up. The local stream was a downhill walk about 500 meters from the family's house. Since the stream was frozen, a small canister was lowered through a hole in the ice to bring water up as many times as was necessary to fill big canisters, which then needed to be hauled back uphill to the house over the same distance (see Figure 5). This, and cutting enough wood to cook and keep the kitchen warm, was truly grueling work.

Fifteen years ago, Rigzin suffered a heart attack that left him partially paralyzed. He could no longer walk and had lost much of the use of his hands, which had been left twisted by the episode. The couple's house was in no way adapted to his condition. He had to crawl from one place to the other, which had become increasingly tiring with age. Adaptations for the disabled are generally non-existent in Ladakh, which is therefore not a particularly easy place for the severely handicapped. The old couple lived in difficult conditions. Their seven children were trying to support them as best as they could, but what they really needed was for someone to live with them permanently to help with everyday needs. All their children were far from Nimoo – their daughters were married and living in other villages and all their sons were in the army. Their plight is shared by many families in Ladakh: the cost of development, economic reconfiguration, and new job opportunities is a population drain that has emptied the villages of younger generations. The toll on elders has been heavy.

Figure 5. *Author fetching water in the frozen stream of Nimoo (photo by Stanzin Choldan)*

Rigzin and Diskit's house was quite modest in comparison with many of the Ladakhi habitations I had seen. Its five rooms, quite small in size, all their walls painted the color of ochre, were sparsely furnished. The exception was the kitchen, whose every inch was occupied. Crammed into it were a traditional Ladakhi bench, a small table, a *bokhari*, and a grey metal shelf supporting a TV set, the only element of the house that suggested time had not stood still since the couple's youth. Electricity had been installed with evident difficulty: wires hung everywhere, interlinked with connections that would have made an electrician shudder. The house was perpetually, bone-chillingly cold. Most Ladakhi dwellings are built so as to receive maximum sunlight. That's how the couple's first house had been built, but a flood washed it away in 1970[31]. When they rebuilt, their options were limited and the result was

[31] Villagers say that the 1970 flood in Nimoo was caused by a glacier lake outburst flood after a part of the glacier collapsed and fell into the lake.

quite tangible. One night, I slept in my winter jacket, a robust piece of winter apparel supposed to resist temperatures as low as −50 Celsius, yet I still felt cold. The discomfort, however, was pleasantly offset by the warmth of the house's occupants, who managed to remain happy in the face of life's hardships. Mornings brought the strong herbal scent of juniper from Rigzin's incense burner as he performed *sang*, a daily ritual in many Ladakhi households, during which the fragrant smoke of juniper twigs is offered to the gods and spirits of the local environment, while a text is recited, invoking local and regional deities. Meant to elicit "positive influences for the good fortune of the participants", *sang* is an example of how Ladakhi local religious practice reflects the everyday pragmatic dimensions of Buddhism (see Samuel 1993:183).

True to Ladakh during winter, when the kitchen becomes the center of each family's universe, our days were spent in the confines of a space no larger than 100 square feet. Its walls covered with soot, the cramped, dark room was kept warm by a *bokhari* continually fed with cow dung and wood. Evenings were spent chatting and watching Indian soap operas and Bollywood movies on television at the rhythm of the power shortages. Despite the increasing availability of processed foods most Ladakhi families chose to cook with fresh ingredients from scratch; this also means that much of our time was spent on meal preparation. Ladakhi cuisine is relatively straightforward and relies on a limited selection of ingredients, but Angmo's cooking had for me the therapeutic effect of comfort food, a particularly welcome change from the bland diet we had been used to in Leh.

One night, as we sat in the kitchen, we suddenly heard loud steps on the roof, directly above us. Pema and I worriedly inquired what their source might be, but our hosts answered calmly

that a dog had probably managed to climb there. A while later, I went to use the toilet on the upper floor, which opens onto a part of the roof. As I came up, however, I saw that a dzo was supping on hay that, in the common Ladakhi manner, was stored on the roof. What was certainly not common was for a dzo to be there, yet the scene did not appear overly strange to me: every day of my stay in Ladakh, in the first months in particular, brought some learning experience and I had by then learned not be unduly surprised by things that would have left me bewildered in some other context. As the house was built on a slope, it seemed plausible that the dzo had simply stepped onto the roof. I imagined it would simply make its way down and, in any case, I said to myself, dzo were to be found just about everywhere, in the most unexpected places.

I went down in the kitchen and, without mentioning my encounter, sat down to enjoy yet another lovely meal. When the sound of steps came again after some time I very casually said that a dzo, rather than a dog, was on the roof. From the sudden change in everybody's facial expression, I quickly realized that this was not as normal as I had imagined. I immediately felt like a fool for not alarming our hosts to the situation. In fact, this was just one of many opportunities for me to feel like a stereotypical foreigner, who had just landed in Ladakh, oblivious to what was plainly evident to everyone around me. As it turned out, the dzo had come in through the back door of the house and climbed the stairs to reach the roof, where the hay was stocked. And apparently this was not the first time that the animal had performed its burglary tricks to satisfy its stomach. Everybody rushed to the roof, even Rigzin, who had to crawl his way up the stairs, leaving me alone to keep an eye on Angmo's young daughters. Angmo went to call Stanzin, their neighbor, for help, and he proved the hero of the situation:

after half an hour of everyone pushing and pulling, he took the beast by the horns and with great effort managed to pull it down the stairs with ropes. The episode made me reflect on the limits on elder couple's autonomy: what would Rigzin and Diskit have done if they had been alone tonight? If Stanzin had not been there? They would have managed, somehow, as they must when they are alone, but it surely would have been far more complicated. Besides, I continued my train of thought, one must feel quite vulnerable when having to ask for help from others, over and over again.

The Big Split

> When land is divided it is a sad occasion because it means that a family is divided: even brothers no longer have the same obligations towards each other. […] Some of our customs seem strange to other people. Many families are made up of a number of brothers all of whom have the same wife. Some say that this is because in such regions there are more men than women, but whatever the reason, it seems to work out extremely well, and it has the great advantage of keeping all the land together.
> – Excerpt from *Tibet: Its History, Religion and People* by Thubten Jigme Norbu and Colin Turnbull (1972:59-61).

One afternoon, I talked with an *onpo* (local astrologer) in Nimoo village about my interest in people's relationship with the environment in Ladakh. Our discussion went towards the destructive flood that hit Ladakh in 2010 (more on this in Chapter 6). The catastrophe marked Ladakhis profoundly: official death toll figures for the floods estimated 250 dead, although locally many people believe that the number could be closer to one thousand dead, as many Nepali and Bihari migrant workers perished in the catastrophe without being identified. Besides costing human lives, the cloudburst generated considerable damage to infrastructure,

homes, farmlands, and road[32]. The army played a fundamental role in rescue efforts by providing support to the population in the weeks that followed the incident and by carrying out reconstruction work. According to scientific accounts, the floods were the result of a cloudburst[33], a rare meteorological phenomenon which had hit with unprecedented intensity. During the monsoon season, the intensive convective system associated with orographic forcing over the Himalayas gathered strength before bursting over Ladakh (Thayyen et al. 2013). Influential Buddhist figures, however, insited that the flood was born of karmic causes. When His Holiness the Dalai Lama visited Ladakh in the aftermath of the flood, he echoed other high religious figures in emphasizing a need for appropriate spiritual practice and ethical discipline in response to the disaster (see Butcher 2013a, chapter 7). While most younger Ladakhis attributed the cloudburst to climate change[34], the explanations put forward by their elders often were profoundly religious in character and referred to a deterioration of morality and the rise of self-interest. Others evoked a belief that people "do not have luck" (*sode metkan*). Those more versed in religious matters and, perhaps, influenced by the discourse of religious figures, referred to a lack of respect for local deities. Overall, for the majority of my informants, the floods seemed to confirm that the moral order was profoundly disrupted.

The flood had completely destroyed the 70-year-old man's house. He now lived in a small prefabricated house with his daughter-in-law and her two children. The temporary shelter, he explained, had been a donation by a foreign woman who visited the village after the flood and

[32] According to the Deputy Commissioner Office in Leh, the event affected 9,000 people in 71 different villages in Leh district (2011:23).
[33] A cloudburst is an extreme weather event, during which very heavy rainfall occurs over a highly localized area in a short period of time, resulting in very rapid water accumulation and often generating flash floods.
[34] Although local media have often linked the catastrophe to climate change, climatology has not, as yet, linked both processes (Thayyen et al. 2013).

had happened to see him praying in distress before debris of his previous house. He felt blessed by her gesture, although he never heard from her afterwards. Close by, the family were at work rebuilding their house, which was obviously not going to be ready before the onset of winter. For now, they would have to spend the coming winter in their temporary house: made of thin wooden planks, it could not provide the comfort of traditional mud houses, which are very good at accumulating the precious warmth of the sun on winter days. At one point, the man told me:

> This is my advice to you. If you want to understand changes in the environment in Ladakh today, think about how everything has become split. Everything has become split, the community, and the families… people are divided, not united. Even Ladakh is no longer connected to Tibet today.

The fact that the *onpo*'s discourse shifted from the flood to social changes was not coincidence as adverse weather conditions are seen as a retribution from failure to have a decent moral conduct, which is in part defined by communal cohesion (see Chapter 4). This cohesion, particularly among household members, was a defining feature of life in Ladakh in the past, something which, as the *onpo* suggested, is changing today. This idea of harmony perhaps constitutes a more romantic depiction of the old days than an objective account would have to offer. Rather than pure cohesion, the necessity to maintain a healthy (and as much as possible diversified) household economy in order to survive in this arid place was a key element of social organization.

In his study of the Kluane people in the Yukon Territory, in Northwest Canada, anthropologist Paul Nadasdy (2003, chapter 2 in particular) explains how hunting is far more than the act of shooting animals: it is also "an entire constellation of values, beliefs, practices,

and social relation" (Nadasdy 2003:66). Hunting is about sharing meat among kin and rules of distribution along kinship lines are sometimes quite elaborate. "Sharing", Nadasy (2003:68) explains, "functioned as a principle of social organizations, embedding people in sets of reciprocal obligations and reinforcing ties with kin". Until a few decades ago – and to some extent still today, albeit in a different form – the organization of work in the Sham Valley, where the household is akin to a cooperative unit, produces the same effect of cementing links among kin through shared work. Within an extended household, for example, one brother would normally be in charge of supervising work on the land, another would be in charge of pastoralist activities, a broad term I will use to refer to seasonal mobility related to livestock herding in rangelands with poor carrying capacity (see Salzmann and Galaty 1990). Before the closing of the border with Tibet, one family member in most households in the Sham Valley also plied trade routes for a significant part of the year. Diversity of occupations was a way for villagers to draw what benefits they could from Ladakh, where arid conditions always limited the possibilities for agrarian development. Each of the various occupations was associated with a specific way of engaging with the environment (see Chapters 4 and 5 for a further discussion). In navigating the mountains as far as the Tibetan plateau, traders learned much about the environment, from knowing the distances between sources of fresh water along the way to learning how to read the sky in order to guide themselves by stars and constellations. Even the youngest son of a family who would, as a general rule, be sent to the monastery in order to ensure the continuity of religious institutions would learn about the environment, albeit more in a ritual way than those doing agro-pastoralist activities, by getting knowledge of the landscape deities and by acting as an intermediary between the laity and the deities.

Hence, the acquisition of environmental knowledge, and empirical knowledge in particular, was intricately linked to the division of labour inside the household.

This diversity of occupations within families was made possible by the prevalence of extended family units, which in Ladakh were based in polyandrous unions. Once a subject of fascination for anthropologists, polyandry is now only rarely treated in the literature. But it is of high interest to the present discussion, especially because in the past, it acted as a security net. Today, with the depopulation in the mountains, neither social nor institutional arrangements have filled the void left by the decline of extended families in recent decades. Moreover, the literature on polyandry has concentrated on its functional role, largely bypassing its function as a cooperative arrangement, which, in the context of Ladakh, enabled people to make varied use of the territory and, thus, contributed to the development of knowledge about the environment. Let us then turn to the specifics of polyandry in Ladakh.

Polyandry, or "living together in mutual understanding"

Historically, the difficulties of sustaining a livelihood in an arid environment that can barely support life gave rise to a specific form of household organization in Ladakh. Men's life paths were closely defined by sibling position (birth order among brothers), while a woman would, as a general rule, become a wife within a polyandrous marriage. The question of polyandry as a form of adaptation to the environmental contingencies of the Himalayas has been the object of extensive anthropological study[35] (see Berreman 1980; Crook and Crook 1994; Goldstein

[35] For instance, Crook and Crook (1994:779) argue that this system "supports explanations of marital systems as forms of parental investment closely adapted to socio-economic circumstances imposed by either ecological or cultural factors or both". In 1938, Prince Peter of Greece and Denmark was the first professional anthropologist

1978). The emic perspective on polyandry supports this view: time and again, Ladakhis explained to me the rationale behind this custom by referring to an imposition by a king of Ladakh as a measure of prevention considering the limited agrarian resources in the region. Aware that Ladakhis of Muslim confession were poor in terms of agrarian assets, the ruler feared his people would meet the same lot if he did not take measures to prevent land partitioning. To be sure, an important result of polyandry was to reduce the reproductive capacity of the population, which in turn affected population growth. The practice came to be seen as a duty that was fundamental to the survival of Ladakhi society and, by extension, as integral to Ladakhi culture. Functionalist explanations of polyandry as a response to limited agricultural lands have been challenged on the grounds that not all Tibetans practice polyandry (Levine 1988). Yet, as Bauer (2004:22-23), rightly notes, the emic perspective on polyandry nevertheless clearly favors functionalist arguments.

In Ladakh, in the past, land estates and households were passed in their entirety from one generation to the next. The eldest son inherited the family estate by right of primogeniture, while the options open to his brothers were limited. One option, often reserved for the youngest son of the family, was to join a monastery, generally in Tibet, as monastic institutions were not well developed at that time in Ladakh (Bray 1991). In some rare cases, men would move to *Karja*[36] to take up farm employment. Another option was to become a *mag-pa*, a status acquired through a uxorilocal marriage as part of which a man takes up post-marital residence

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to study polyandry in Ladakh. A student of Bronislaw Malinowski, Prince Peter adopted a functionalist perspective and defined polyandry as a custom resulting from "a latent male homosexual and near-incestuous form of the marital institution, correlated with excessive economic and social pressure on the nuclear family of peoples living in a difficult natural or social environment, provided no special cultural norm is opposed to it" (p.569, cited in Berreman 1964:322). The assertion that polyandry satisfies incestuous and homosexual desires was not convincing to many anthropologists.

[36] *Karja* refers to today's region of Lahaul-Spiti, in Himachal Pradesh State.

in the household of one's wife[37]. The remaining option, and the most commonly adopted was for men to join their elder brother in polyandrous marriage. As I was told on several occasions, the idea of marrying as a *mag-pa* could lead to a lot of anxiety as it meant "being foreover a stranger in someone else house" and receiving a corresponding treatement. One nonagenarian from Hemis Supackchan today told how he had to marry as a *mag-pa* because his elder brother used to be really rude and abusive. This man was so stressed about leaving his family and his village for the ones of her wife that in another village

Polyandry was apparently once highly prevalent in Ladakh: when I discussed this custom with elders during my fieldwork, they often explained me that earlier, at the time of their parents, "everybody was living like that" [38]. Polyandry was banned in 1941 with the passing of the "Buddhist Polyandrous Marriages Prohibition Act", but it was not abandoned systematically and continued to prevail for some time. In fact, as I observed, cases of polyandry could still be found among Ladakhi families just one generation ago (see also Bhan 2014:35)[39]. The law that banned polyandry was followed in 1943 by a law banning primogeniture, the "Ladakh

[37] This type of arrangement generally occurs in families with only female descendants, who need a male to ensure the continuity of the household lineage. Becoming a *mag-pa* does not require village exogamy – i.e. a man can join a household in his native village.

[38] Prince Peter reported a prevalence of 90% for polyandry during a survey conducted in 1938; decades later, in 1981, Crook and Shakya (1994:704) estimated a high prevalence as well, although they emphasized a growing tendency towards abandoning this type of union. In Gutschow and Gutschow's research (1998:117), out of 398 marriages recorded in 1992, 6.5 % were polyandrous and 7.5 % were polygynous. A decade earlier, in the 1980s, Crook and Osmaston (1994) had found a polyandry rate of 40 % in the remote village of Shade and a polyandry rate of 18 % of all marriages recorded in Stongde. Conducting research in the mid-1990s, Hay (1997) also reports a number of cases of polyandry, albeit not among young generations of Ladakhis. Although marginal in number, I observed cases of polyandry and polygyny in some villages going back one or two generations.

[39] Besides "classic" cases of polyandry, cases of "informal" polyandry (in which two brothers are having sexual relations with one wife, a practice explained away by some as a cultural custom) can also be found today. This type of arrangement is accepted by some, as I observed, but it may be seen as a transgression by others (see Bhan 2014:36). This is an issue of interest that needs further exploration, particularly because the current economic context of Ladakh is compelling many men to work outside the region for long periods of time.

Sucession to Property Act"[40]. Yet, according to Ladakhi elders, it is sheer poverty that was compelling people to live in polyandrous marriage; for this reason, the ban on polyandry is rarely cited as a source of changing practice – in fact, for some time, people continued to practice polyandrous unions despite the ban – but rather access to employment opportunities.

Ladakhi often describe polyandry as a system of cooperation and, in the local lexicon, as *thunte yarte*, which translates as "compromise/ sharing" or "living together in mutual understanding"[41]. Polyandrous marriages indeed consist in something akin to a cooperative enterprise. Polyandrous unions were often described to me, by both men and women, as being enjoyable (*skitpo*) precisely because work was shared (see also Bhan 2014:35; Hay 1997). The fact that householders could count on many hands to accomplish work duty provided a feeling of security and certainly worked to give precedence to communalism over individualism. In the words of an elderly woman from Nimoo village, "People in those days did all the work as a group".

But polyandrous marriages, it should be noted, could also lead to tensions among brothers, especially because some elder brothers could be authoritarian: the eldest son of a family was, in the words of many of my informants, "like a king" (although some also stressed that brothers

[40] Bertelsen (1997) provides a comprehensive discussion of the history and the rationale behind the ban on polyandry. Major factors in the adoption of the ban were views such as that polyandry was "shameless" and that it was skewing Ladakh's population ratio in favour of Muslims. While disadvantaged younger brothers in some villages welcomed the ban on polyandry and primogeniture, the measure created much resentment among first-born males (Aggarwal 2004:72).

[41] Contrary to certain accounts, polyandry (at least in Ladakh) was never a case of "group marriage" in which all the brothers in one family would have married the same woman. The marriage celebration included only the eldest brother but, because his wife was joining the household, his younger brothers were *de facto* joining the union, as well. Children's biological paternity in this marital arrangement was not a concern within the family (see also Crook and Crook 1994). Children called the eldest brother *aba chenmo* (older father), while the younger brothers were known as *aba chungun* (small father). In other words, the male head of the household and his brothers were all considered fathers.

could be "really good"). Moreover, as elders told me, "access to the wife" was not always an easy matter, especially in a union that included many brothers[42]. In cases where such tensions could not be resolved, the remaining options were again very few, especially because in Ladakh, having various married family units under the same roof was widely considered unacceptable (see Crook and Crook 1994:742).

It is in this context that opportunities of employment in the army in postindependance India, amidst conflict with neighboring countries (a subject that will be discussed in Chapter 3) opened new opportunities for men outside the agrarian system, thus giving many men new economic freedom and an escape from the rigid household organization as subsistence was no longer entirely contingent on access to land. This, and employment opportunities in the public service led to a growing number of nuclear household units an associated increase in the partitioning of family land estates. Land lots in Ladakh have always been relatively small. Today the majority (76%) of Ladakhi farmers possess 1 hectare or less of land and are, thus, classified as marginal farmers as per the Indian land holding classificatory system. In fact, the proportion of marginal farmers in Ladakh rose from 60% to 76% between 1995-1996 and 2010-2011[43], which suggests a growing trend of land partition among family members and this was confirmed by many of the people I interviewed. Thus, at the local level, state perception of Ladakh as a place has translated into an accelerating trend towards living in nuclear families and the diversification of the household economy beyond farming, which is no longer the sole means to sustain livelihoods.

[42] See Hay (1997) for questions related to women and polyandry in Ladakh.
[43] http://planningcommission.nic.in/plans/stateplan/sdr_jandk/sdr_jkch3a.pdf (retrieved on September 23, 2014)

Yet, in extracting labour from people in order to form the bureaucratic and military state, the Indian state has contributed to break an existing security net in Ladakhi society. This brings us back to small Nimoo village in the middle of winter. The consequences of this eroding security net are particularly salient for people of older generations, as we have seen with the case of Rigzin and Diskit. While most Ladakhi elders today grow old with at least one of their children to care for them, growing numbers must face the new reality of aging alone. Changing social practices and the rural exodus suggest that many more elderly Ladakhis will soon be left to their own devices.

The extended family as a social security net in India has been discussed in other contexts (Agrawal 2004; Bates 2004; Chekki 1996; Chen 2000), but the question remains largely unexplored in the Himalayas. In particular, issues related to the depopulation of the Himalayas and its threat to agriculture, economic inequities, and family based-care system for the elderly have been discussed in Nepal (Childs et al. 2014; see also Goldstein and Beall 1982) but despite their current relevance, have received scant scholarly attention in Ladakh[44]. It is also clear that amidst economic restructuring and the transition from extended to nuclear family questions of elderly care constitute a crucial taboo for Ladakhis. On several occasions I attempted to discuss this issue, only to find out that I was creating a huge discomfort or worse, as I explained before, I was criticized for even implying that elders are left alone. In his work among a Tibetan community of highlands Nepal, Childs (2004:132) remarks that "[t]he cultural ideal of reverence for the elderly is mitigated by the harsh pragmatism of economic reality", a scenario that describes well the situation of Ladakh today. Moreover, as much as

[44] A recent short paper by Tsering Jordan (2014) is an exception.

they would like to support their aging parents the best they could, many are simultaneously constrained by the imperative to ensure the subsistence of their young families. What might be read as the fruit of growing individualism might as well be analyzed against the backdrop of a restructured economy that in practice prevents the continuity of past arrangements.

Elders are more than conscious of the burden they are becoming on their descendants. Often in our discussion I have heard them lament that they are not able to help in the household and the farm due to their old age and feel guilty for that (see also Childs et al. 2014). This is not to imply that all elders are sad; yet, the anguish of the shift in life from being a productive member of the household to someone that depends on their children can be quite tangible among Ladakhi elders. And it is also clear that elders are longing for an era when the community bond was stronger.

Although Buddhist values are not static, their essential meaning permeates people's everyday reality. In the context of Ladakhi village life, social harmony and cohesion, for instance, are closely associated with respect of community rules and arrangements. Consequently, a lack of solidarity is often attributed to people being selfish and acting only in their own interests. Another key Buddhist value, and one that will be a recurrent theme in this dissertation, is the ethic of respect and support for one's parents and elders in general, which has been traced back to classical Buddhist texts[45] (Harvey 2000:98-99). In fact, providing support for aging parents is a social obligation in many Asian societies. As Childs (2004:129-141) eloquently demonstrates, aging in the Himalaya today means becoming someone's burden. While elderly

[45] This can also be read as part of an attitude of deference – of junior to senior, secular to sacred, unschooled to enlightened – which is strongly prevalent in Tibetan societies (Kapstein 2014:46).

people used to become dependant on coresident son and daughter-in-law, with the recent rapid decline of the extended family household and rural desertion due to outside employment, the security net of elderly Ladakhis is increasingly fragilized. Rigzin and Diskit belong to one of the first generations of Ladakhis growing to old age in nuclear families. Only a few decades ago, two elders having to battle everyday matters and the toll of aging on their own would have been unusual. Hence, the preservation of a certain continuity in villages is becoming increasingly the burden of aging people and also young wives who must take care of the household, the farm, the children and aging parents and parents-in-laws while their husband are working outside.

Authority and Place

Margaret Rodman (1992) uses the concept of "multilocality" to speak of the multiple voices that inhabit places. In her model, a place is made of multiple social landscapes, each of which is determined by how individuals relate to the ecological context where they live. Rodman's work contributes to our understanding of place as she moves away from a unitary concept of locality. As Raffles (1999:329) points out, there is an interesting tension here, because locality is often seen as a unitary concept, but is, at the same time, always shared. Such reflection propels me to think about the multiple experiences of place in Ladakh as they are defined by different forms of authority. In other words, the experience of authority in Ladakh is diverse and lead to different and overlapping constraints.

I have thus far discussed the different types of authority that used to prevail in Ladakh. I have examined the autocratic exploitation of the Dogra ruler and how it maintained peasant Ladakhis in a constant state of poverty. Another form of authority was incarnated by those who supervised the payment of exactions and forced labour for the Dogra ruler, and by moneylenders who also exploited peasants. The family also acted as a form of authority, especially because the sole mean of survival in this arid environment with a poorly diversified economy was linked with the household unit. In particular, in a context of primogeniture, the elder brothers were authoritative figures inside the household. All of these are forms of political authority as they relate to governance in Ladakh. The second type of authority I have explored relates to the ecological context of Ladakh. I spoke of the "rule of winter", as the cold season forces Ladakhis to accomplish an elaborate number of activities, all of which are oriented towards survival. Overall, winter had a strong command on the organization of life.

Religious also constituted a form of authority. Very little ethnographic information exists on the link between monastic institutions and village communities before the independence of India, except for questions related to ritual performance or economic linkage. But what sort of authority monastic institutions had on villagers? In a very unique account of Tibetan culture, society and religion, Martin Mills' study conducted in Kumbum Monastery in Lingshed village in Ladakh sheds some light on how religious authority might have operated in the region in the past. A Gelukpa institution that focuses more on tantric rather than philosophical training, the Kumbum monastery is very much engaged in household and village matters, through the performance of a wealth of rituals oriented towards local deities in order to ensure the continuity of the community. This leads Mills to argue that the "chthonic consciousness of the

peasant" (or Tibetan cultural ideology) dominates Tibetan society rather than Buddhist ideology (Mills 2003:345; see also Tuttle 2004). In other words, belief in local deities and in the need to maintain a good relation with them through ritual performance and moral actions was in great part how monastery used to exert power on Ladakhi communities. I will return to some of the tensions that infuse this relation today in Chapter 4. In sum, constraints one individual actions and thought used to be various, with some exerting more influence than others.

The reason why I emphasize these forms of authority is because they were all defining features of how Ladakhis experienced Ladakh as a place before the independence of India. As we will see in the chapters to come, these forms of authority have become unsettled or have been eradicated. The Dogra rule has been replace by the rule of the state in a context of border area; the rule of winter is increasingly defied, by those who can afford to, via mobility outside Ladakh during specific months by the year; although it continues to exert much influence, religious authority, does not have the same ascendency on people as it did in the past. In many ways, these forms of authority were all part of the way Ladakhis experienced Ladakh as a place: Ladakhis engaged with the environment by realizing various activities such as trading, farming and pastoralism in order to pay their exactions; the simultaneous accomplishment of these activities was possible because of the extended family (through polyandrous union); the role men had in this system was largely dependent on whether they were the first son of a family or not. As a byproduct of the extended family, a social security net enabled to take care of the most vulnerable ones like elders.

As we will see in the next chapters, the state, particularly through the production of the border area, has become a dominant form of authority in the definition of the experience of Ladakh as a place. Thus, my point is that because an embodied environmental ethics emerges from engagement with the environment, forms of authorities also need to be taken into consideration in order to assess the parameters of this engagement. Today, the engagement with Ladakh as a place is increasingly the result of the production of the state. But the experience of Ladakh as a place continues to be multilocal/multivocal. What we need to look for in order to understand this diversity of experience is how people are physically engaging with the place and the way the state (as a form of authority) is defining this engagement. Conversely, we also need to look at what criteria of social differentiation are creating multilocality/multivocality in a place which is reconfigured as a border area. Ultimately, the disruption of the social security net or the lack of receptiveness to receding glaciers, as evoked earlier, should be read in light of both a changing authority over the experience of Ladakh as a place and a shifting (and corresponding) embodied environmental ethics.

Conclusion: Of Changing Landscape and Inescapable Cycles

The economic restructuring of Ladakh has brought prosperity (for some) and has indeed eradicated much of the misery of pre-independence Ladakh. Yet, those inroads have not reached every household in every village. In some cases, people still experience hardships that are reminiscent of the old days. In such conditions, various personal tragedies – a precarious health condition, the death of a parent – require a strong social safety net to support the population in overcoming life's adversities.

The governance that prevailed in Ladakh before the independence of India was that of a ruling entity unequivocally exploiting the population. By contrast, "the Great Hindustan", as the modern Indian state is often described by Ladakhis elders, gave people wealth in the form of infrastructure, salaries, and food subsidies. In many respects, even more than the outlawing of the custom, the demise of polyandry is strongly linked to the Indian's state territorial practices and the redefinition of Ladakh as a place. New employment opportunities stemming from militarization and bureaucratization have been an important factor in changes to household organization in Ladakhi villages. But while the state deploys itself in Ladakh as the guardian of the border, as we will see, it fails in many respects to protect the population from the shortcomings of a social safety net it has contributed to wither. Hence, from the perspective of the state, Ladakh as shifted from a place where resources are abusively extracted from people to a place where, as I next move to, the local becomes the driving force of a state project. No longer a productive assets, the elders have become the forgotten citizens of a state project.

The changing landscape of Ladakh serves as the leitmotif for much of my discussion throughout the present dissertation. Yet, despite the broad and far reaching changes of recent decades, Ladakh has not changed entirely: it remains an arid place, tucked away in tremendously high mountains. Life here is still conditioned by the enduring cycle of the seasons. The fact that a number of Ladakhis today prefer to be elsewhere in winter shows that, despite infrastructure development, the electrification of a growing number of villages, Ladakh remains a place where living conditions can be harsh in winter. It also remains a place where surviving winter requires preparation, good harvests, and well-tended livestock. It is a place

where lack of access to running water and limited access to electricity mean that people must continually perform a range of physically strenuous tasks in austere winter conditions, which only becomes more difficult with age. Ultimately, it is a place where the rule of winter continues to prevail.

As outlined above, household structure played a key role in the way Ladakhis engage with and know the environment. Consequently, changes in household structure impact Ladakhi's empirical contact with the environment, as well as their knowledge and consciousness of place. Before examining this relationship in greater detail, however, the next chapter will show how a critical event resulting from India's independence fundamentally altered how the national state perceives Ladakh as a place.

Chapter 2
Arthalis and Beyond
A Crack in the Landscape

"In her country, do they have the fear of Pakistan?"
– *Dolma Yangzom, Nimoo village, in reference to me*

"By the grace of lord Buddha we won the war against the Balti" – *Lhamo Putit, Skindeang village*

It was summer 1948. Two young women from Nye village were grazing their cattle on an alpine grassland when they saw a group of tall men dressed in black coming up towards them from the valley. Just over 6 months before, Maharaja Hari Singh had signed the controversial Instrument of Accession, making the princely state of Jammu and Kashmir a part of the Dominion of India, which had gained independence from the British only a year before[46]. Now, news was spreading throughout the Sham valley that Gilgit Scouts, a paramilitary group formed under British rule, who pledged allegiance to Pakistan during the Partition of India, and Pathans[47], were moving into the area from the direction of Skardu (Baltitsan), looting everything on the way. The chaos of the Partition had reached even the high mountains of the Himalayas. The armed men were marching towards Leh, less than 40 kilometers from Nye, with the aim of taking control of the capital of Ladakh. But the young village women did not know who the men were. "Where did you come from", asked one of the women in typical Ladakhi salutation. "Are you our Indian army or you are Balti[48]"? They were, in fact, men of Pashtun origin allied with the Gilgit Scouts under the Pakistani banner. Unsuspecting, the

[46] For scholarly treatments of Jammu and Kashmir's accession to India, see Bose (2003) and Lamb (1997).
[47] Pathans is the word in Hindi to refer to men of Pashtun origin.
[48] Primarily of Tibetan ethnic origin, since about the 14th century the population of Baltistan, today a region of Pakistan, is of Muslim confession. The terms "Balti" and "Kache" are commonly used by Ladakis to distinguish not only between Shia and Sunni Muslims, but also between Baltistanis (Balti) and Kashmiris (Kache).

young women brought the raiders to their village. In those days, encounters with both Indian infantrymen and colonial administrators were rather rare, especially for those living in villages like Nye, which are deep in the valley. As they reached the settlement, another villager stopped them. "We were expecting you and so we had made tea for you", he said, also thinking that these were members of the Indian army. Ladakhis know well how tiresome it is to travel the mountains and they have a highly developed sense of hospitality.

From a hill, lower in the village, hiding under a boulder, Morup Zangpo surveyed the mountains through a pair of binoculars. He watched the exchange unfold and he was terrified. He knew exactly who these men were. Like many Ladakhis, Morup Zangpo had recently been assigned by the Indian army to guard his village. Amidst the turmoil, Indian forces relied heavily on Ladakhi civilians and their expertise in the territory. From his vantage point, he could also see towards Nimoo, one of the last villages before Leh, where a large Indian army contingent was stationed. The villagers' unsuspecting hospitality provided him with a chance to act. He quickly went up to the village. Feigning ignorance, he told the visitors that the Indian army had just left the village. He then guided the Pathans towards a trading road leading out of the village. Once the Pathans had had their tea, their contingent departed in the direction Morup Zangpo had shown them. This was the opportunity he had hoped for: while the raiders made their way down the road, a group of villagers took a shortcut, using the mountain paths they knew so well, and went to warn the Indian troops at Nimoo of the approaching danger. The ploy worked. As Morup Zangpo recalls now, with the calmness of his 92 years, "the Pathans went straight towards the Indian army". Then followed clashes between the opposing forces over the course of the next few days. His testimony provides a

telling example of how the first war opposing India and Pakistan played out in Ladakh. Indeed, the Indian army may well have lost the conflict had it not recruited the help of civilians like Morup Zangpo.

In the present chapter, I examine the partition in the Sham Valley as a moment of encounter when Buddhist Ladakhis came face to face with both an invading Pakistani force and an Indian defensive army. This encounter is also a clash between matters of locality and matters of warfare. Referring to the conflicting depictions of glaciers by colonial explorers and indigenous populations in North America at the turn of the 18th century, Cruikshank (2005:8) explains that the "idea of encounter seems especially useful because of what it reveals about scale and subjectivity". Particularly valuable in studying the history of local communities, the approach is well-suited to examine the marks left by the war on Buddhist Ladakhis and the implications of this encounter for future developments in the region. The partition was a decisive moment in the history of India. The tracing of borders between the newly formed Indian and Pakistani states led to mass displacements of population and communal violence that took the lives of half a million people. Claimed by both countries, the princely state of Jammu and Kashmir became the central stake in a territorial dispute that quickly deteriorated into what was to be the first of four wars between India and Pakistan. The hostilities that began in 1947, affected Ladakh in 1948. When Ladakhis speak of the war today, they speak of *arthalis*: forty-eight in Hindi to distinguish it with the three further wars India fought with Pakistan (1965, 1970, 1999) and which have all partly played out on Ladakh's territory.

Scholars of "small voices" in India have made an effort to discuss the violence of the partition

and the ways it affected and continues to affect different communities[49]. As Gutschow (2006:473) rightly notes, however, although most scholars agree that the Indian partition witnessed social collapse and outbursts of genocidal violence that "often exceeded the possibility of language or analysis", the experience of the partition was not homogenous throughout the affected areas everywhere in India (see Das and Nandy 1985). Ladakh's Buddhist and Muslim communities notably escaped the atrocities and communal violence of mass proportions that took place elsewhere in North India, particularly in the Punjab and the western parts of Jammu and Kashmir.[50]

As I discovered, however, the partition nevertheless marked a rupture that left a lasting mark on a generation of Ladakhis. This is something that soon came to me as a conundrum during fieldwork. In discussing with elders, I would systematically ask, early in the conversation, what they felt had changed most in the surrounding physical environment. Very frequently, their answers turned towards the events of partition, not necessarily as a direct cause of environmental change, but always as a pivotal event that created a breach in everyday life and remained thereafter in the background of all subsequent changes, including those affecting the environment. This association of seemingly disparate dimensions compelled me to explore it further: why were people recalling a decades-old historical event when talking about environmental changes happening today? What was the link connecting war and partition to changing meteorological conditions and depleting natural resources? In describing the events

[49] See Guha and Spivak (1988) for the alternative approach to history adopted by the subaltern study group, a collective of South Asian scholars, emerging in the 1980s, who focused on marginalized populations and social actors. Pandey (2001) provides an example of a subaltern history of partition, examining the "faceless" or nameless citizens in whose name the Indian and Pakistani states claimed to be acting during the partition. Pandey (1991) has long argued for a historiography that gives voice to India's minorities.

[50] In parts of Jammu and Kashmir, a number of Muslim and Hindu communities were exiled and, in some cases, greatly decimated during the partition (Bose 2003)

of the partition through the personal experiences of Buddhist Ladakhis, this chapter focuses on a specific consequence of the first Indo-Pakistani war and its aftermath: it is what I will call a crack in the landscape.

The first war with Pakistan was a key moment in the onset of these changes: first, because it exposed Ladakhis to unprecedented levels of violence and, second, because it set in motion the implementation of India's state apparatus and the economic restructuring in the region. The cumulative effect of these processes was to alter patterns of social relations in Ladakh. Moreover, in the eyes of many Ladakhis, particularly the older generations, the changes occurring in the physical environment today are strongly linked to changes in moral values, as mentionned. In the Buddhist interpretation of the world, environment and morality are inextricably linked: human actions have an effect on the environment, so that when people do not act in accord with moral prescriptions, the environment is less fruitful.

Recent scholarship on social memory has examined landscapes as repositories of memory and places of reminiscence for communities, showing that different cultures assign different meaning to landforms (See Basso 1996; Cruikshank 2005; Ingold 2000; Schama 1995). Changes in landforms, too, take on particular local meanings that are informed by local beliefs and values. This is what Cruikshank (2005) has demonstrated in her work on colonial encounters in the Mount Saint Elias ranges in North America. According to Cruikshank, changing landscape features, such as fluctuating glaciers, "provided imaginative grist for comprehending and interpreting *shifting* social circumstances" [emphasis in the original] for the Tinglit community in the late 18th and early 19th centuries (Cruikshank 2005:11-12). Likewise, as we will see, changes occurring in Ladakh's landscape are interpreted through concepts

specific to local culture; it is this process of interpretation that enables Ladakhis to make sense of changing circumstances, in particular those stemming from the war of 1948 and the consequent implementation of India's state apparatus in the region. Can we see in the encounter between Buddhist Ladakhis and the Indian army during the war what Cruikshank (2005:128-129) terms a "transformative moment", when different forms of knowledge and different conceptions of the world permeate on another, with consequences for both sides?

Talking with Ladakhi elders allowed me to collect their individual perspectives on the partition, each providing insights into the nature of the encounter of cultures. At the same time, as they are the product of memory, rather than an accurate reconstruction of history, the testimonies of partition evoked in this chapter are impregnated with subjectivity. The distinction between memory and history has been the object of scrutiny in the litterature. In an effort to go beyond the notion of "false memory", Antze and Lambek (1996) have studied memory as an interpretative reconstruction structured by local narrative conventions and cultural beliefs. For historian Pierre Nora, memory is a living thing: it is embodied in individuals alive today and, therefore, "remains in permanent evolution, open to the dialectic of remembering and forgetting […] a perpetually actual phenomenon, a bond tying us to the eternal present". History, on the other hand, is the ever-problematic reconstruction the past, of "what is no longer" (Nora 1989:8). Memory should not be equated with history. To do so, notes Nazarea (2006:325), is to undervalue the capacity of memory to transmit insights of a different nature (see also Butalia 2000:8).

Last, Van Schendel (2005:24) has argued that a serious commitment to the narratives and experiences of the people who lived through the partition is key both to fathoming this

historical event and to studying the state effect. The events of partition have been discussed abundantly in India, particularly their violence and the collective trauma they left behind. However, their impact on Himalayan communities and how it influenced the introduction of the modern state in the region, where the colonial state had made only limited inroads, remains an open question. Contrary to the view put forth in standard military and historical accounts of the war, what these narrative demonstrate is that Ladakhis not only sided with Indian troops during the war, but also played an active role in defending the territory, with significant consequences for the production of the state in this border area.

Partition in the Mountains

In November 1947, when India became an independent state, India's entire military presence in Leh consisted of a single platoon of some 30 men tasked with defending the vast area of Ladakh (Malhotra 2003:6). In February 1948, Pathans and Gilgit Scouts attacked Skardu[51] in a surprise invasion of Jammu and Kashmir. The officer in charge of the platoon in Leh sent a distress call to the Kashmir Premier, pleading for reinforcements[52] (Prasad and Pal (2005[1978]:327).

Jammu and Kashmir's military force at the time included a number of officers from the Lahaul district of today's Himachal Pradesh State, whose religious traditions are a combination of Hinduism and Tibetan Buddhism. Lahaul had close historical ties with Ladakh and, when word of the invasion came through, some of these officers volunteered to lead the

[51] For further details of the invasion of Jammu and Kashmir, see Bose (2003), Jha (1996), and Kaul and Kaul (2004).
[52] Among the very few sources that discuss the invasion of Ladakh are Chibber (1998), Kaul and Kaul (2004), Gutschow (1996, 2004), Prasad and Pal (2005[1978]), Sen (1969) and Tariq Ali Khan (1998).

defense of Ladakh. Lahauli officers, such as Major Prithi Chand, Captain Khushal Chand, and Subedar Bhim Chand, would play invaluable, if largely unheralded, roles in defending the new Indian republic's territory (Malhotra 2003:6). As Gutschow (2006:496) points out, had it not been for the organization of a rapid defense of the region by the Lahauli officers, "[b]oth Ladakh and Zangskar might not lie in India today".

Leading a small detachment of men, the Lahauli officers marched for 3 weeks in severe winter conditions before reaching Leh. There, they proceeded to raise militias from the local Ladakhi population and, over the next two weeks, they put the recruits through basic training. The hastily assembled defense force faced glaring equipment shortages and many Ladakhis were initially armed with traditional lances and bows (Malothra 2003:8; Prasad and Pal (2005[1978]:327-328).

Both sides largely held position for several weeks, but the fall of Kargil in May gave the raiders[53] a solid footing from which to strike Leh. The prospects seemed bleak. Since Leh did not have an airstrip, reinforcements would have to arrive on foot, along mountain trails. Better equipped and superior in number, the raiders seemed poised for a decisive victory. In late May, the defenders took heavily losses in fighting around Khalste, causing many Indian troops to desert. At this stage, the situation had become extremely frantic for both the Ladakhi civilians and the Indian troops. Around Khaltse, the raiders gained much ground, their positions now a direct threat to Leh. But, with reinforcements finally arriving by air, notably

[53] In conversation, elders refer to the invaders in various ways: they use either the metonym "Pakistan", *Pakistanpa* (people from Pakistan), the term *kabayilis* (which means "tribesmen of the mountains" in Urdu), or the term *phyi pa*, which means "outsiders" in Ladakhi. In reality, as we will see below, the invading force was quite mixed in composition, as some Muslim Ladakhis joined the Pathans and Gilgit Scouts. Except when I focus on one group in particular, I will therefore refer to the invaders by the collective term "raiders", which is used in many military accounts on the invasion of Ladakh.

the Gurkha[54] Rifles regiment, a stalemate ensued throughout the summer, both sides gaining and losing ground in turn.

In early September, Major Hari Chand and a small guerilla platoon carried out an operation that would prove highly significant. One of the invading forces' strategic advantages was an howitzer, a long-range cannon placed at Basgo village, which could be used against Leh and, potentially against planes bringing reinforcements (an airport had by then been built near Leh). With the help of villagers, Hari Chand and his men were able to locate the building where the gun was kept under guard. At dawn on September 10, they attacked, took the position, and destroyed the gun with explosives (Prasad and Pal 2005[1978]:340-342). Although it may be difficult to estimate the real strategic significance of the operation in the wider context of the conflict, many of my Ladakhi informants told me that once the gun was destroyed, the raiders lost their confidence.

The stalemate nevertheless continued into the fall, neither side gaining a decisive advantage until early November, when Indian forces made strong advances, greatly weakening raider positions in the Zojila sector, villages of Sham and Kargil, and reaching as far as Marol, in Baltistan later that month. By late December, heavy snow brought all operations to a standstill. While the opposing forces remained in their respective positions, negotiations at the political level finally resulted in a UN-mandated cease-fire that came into effect on January 1st, 1949 (Prasad and Pal 2005[1978]:343-345). Ultimately, the defense of Leh lasted almost a year,

[54] The Gurkha infantry regiment, originally formed as part of the British Indian Army, is composed of is composed of ethnic Gurkhas and Nepalis.

from February to December 1948. During this period, the invaders also controlled a number of villages in the Sham Valley.

In concluding their study of the events of the war with Pakistan in the Sham Valley, as part of their study on the operations that took place in Jammu and Kashmir between 1947 and 1948, published by the Ministry of Defence of the Government of India, military historians S. N. Prasad and Dharam Pal (2005[1978]:346) wrote:

> There appears no doubt that in the last week of May 1948, and again in July, Leh was within the raiders' grasp. It still remains a mystery why they did not press home their attacks and capture Leh once for all. […] It is true that the local villagers were against them, but their opposition was meek and entirely passive, and it was of negligible importance in that vast, sparsely populated and thinly held region.

This perspective severely underestimates the active role of the local population in determining the outcome of the conflict in the Sham Valley. As we will see below, the first-hand accounts of Buddhist informants challenge this narrative. Civilians like Morup Zangpo, introduced at the beginning of the present chapter, provided crucial support to Indian troops, notably through their knowledge of the place. Many played key roles in resisting the raiders, despite fearing for their life[55]. Local actors are easily marginalized in accounts of major conflicts, such as the first war between India and Pakistan. I will argue that the support of the local Ladakhi population was decisive for the outcome of the war in the Sham Valley and, by extension, for the history of modern India.

[55] Gutschow (2006) is the only author thus far to provide first-hand accounts translated into English of the partition in Ladakh and her work concentrates in the Zanskar area of Ladakh. To my knowledge, outside of my own work, no first-hand accounts of the partition in the Sham Valley have been published previously in English. Gutschow also reports the existence of a Ladakhi-language publication on the subject, a special edition of *La dvags kyi Shes rab zom* [Sheeraza Ladakhi] Vol. 20, Nos. 3–4 (1998–99). Unfortunately, I could not access a copy of the volume.

"May such a thing never happen again"

When Phuntsok Stanzin from Nimoo village first heard that the invading forces had penetrated the Sham Valley in their march toward Leh, his first concern was to save his family's cattle. News had travelled as swiftly as dust in the wind that summer and Phuntsok Stanzin had heard stories of the raiders slaughtering animals indiscriminately to feed the troops in every village they passed through and forcing local villagers to work as porters. In May 1948, as the conflict reached a critical stage, Phuntsok Stanzin decided to guide his cattle into the mountains, where the animals would be safer, while he continued on to the village of Umla, where he could take refuge in a relative's house.

After several days, wracked with worry about his family and his cattle, Phuntsok Stanzin decided to make his way back to Nimoo with two fellow villagers. On the way, however, they were captured by a detachment of hostile forces. Seeking animals for transport, their captors first brought them to Nimoo, but when they reached the village they found it almost empty: most people had fled and were hiding in the mountains. Indeed, as panicked villagers were hiding in the high moutains, villages were emptying out all over the Sham valley as the raiders were progressing toward Leh. As an elderly woman from Basgo told me, looking back on the occupation, "only some old people were left in the houses and so, until [the raiders] left, the whole village was sad, quiet, and seemingly dead". Then, in a grave tone, she added, "May such a thing never happen again". Despite the dangers, farmers in Sham had no choice but to carry on with their farming activities: the fruits of the harvest were the only way to survive the winter. Although many of the normal patterns of life had been brought to a sudden halt, the cycle of the seasons still dictated the terms of survival. In many households, only the elders and

one able body stayed behind to look after the fields; most often it was women who stayed, as the raiders were targeting the men for captive labor.

After their captors had taken what little cattle remained in Nimoo, Phuntsok Stanzin and the other detainees were led towards Khaltse. At dawn, they heard gunshots. "The rest of the Balti are now arriving", thought Phuntsok Stanzin to himself. All led to believe that the Indian troops were unable to repel the attack. Over the next several days, Phuntsok Stanzin was forced to carry loads of vessels, dung, wood, food, and jugs of water for the raiders in the mountains between Umla and Taru villages. Like many other Ladakhis, Phuntsok Stanzin refers to this work as *begar*, a term which unmistakably connotes with the forced labour of the exploitative, pre-Independence rural economy system described in the previous chapter. Escape was near-impossible, as detainees were supervised during their runs and, when not moving, were tied to heavy stones. But Ladakhi prisoners did offer a degree of resistance: narratives abound of detainees not only escaping, but also throwing arms, ammunitions, and other equipment into streams.

It is during his captivity that Phuntsok Stanzin witnessed a scene that has forever remained a traumatic memory. On a mountainside, overlooking the valley, next to a big rock, stood an enormous stack made up of the bones and other remains of yaks and dzo. The gruesome monument was all that was left of the cattle the raiders had killed and eaten. "They were stacked up like horns on a *lha tho*[56], *konjok*!,[57] it was unbelievable", Phuntsok Stanzin recollected with teary eyes. But what truly broke his heart was finding out several weeks later that his own

[56] *Lha tho* are altars dedicated to local deities; their structure often incorporates the horns of goats and ibexes.
[57] An exclamatory expression often employed in Ladakh, *konjok* refers to the Triple Gem of Buddhism: the Buddha, his teachings, and the community.

flock of yaks and dzo had been butchered. "They were all slaughtered by these merciless people", Phuntsok Stanzin told me, with a trembling voice. "I have gone through tough times and seen hard life that no one should have to see", he added, shedding tears. The slaughter of animals during the occupation was clearly a painful memory for all my informants. The raiders' purely utilitarian approach to livestock jarred the Buddhist Ladakhi consciousness (see also Gutschow 2004:27). Cattle were killed not only for food: when the bridge over the Indus was burned (more on this later), the raiders killed dzo in large numbers in order to make watercrafts with the skins[58].

The tension between acting in conformity with moral decrees and the need to feed their families has always been an aporia for Tibetan Buddhists: strict vegetarianism is not a viable option in the high altitude environment of the Himalayas. When Ladakhis kill animals for food, it is strictly out of need. Traditionally, they have attempted to right the balance by pronouncing prayers (often improvised, rather than doctrinal, I was told) intended to purify their sins when killing animals. The fact that cattle provide nutrition in the form of dairy products also acts as a constraint against killing animals. The Ladahkis of Sham have long been cautious not to kill animals (especially when young) in large numbers and meat was often saved for special occasions. For example, men would often return from trade excursions with old yaks which were then slaughtered during Losar (New Year) celebrations.

Non-violence is a prime ideal in Buddhism, yet Buddhists inevitably face situations of war. What, then, do Buddhist creeds say about human actions during wartime? The *Arya-satyaka-parivarta*, an early Mahayana text, particularly influential in Tibet, explains that if a ruler has to

[58] Coracle-like boats made of yak skins.

defend his country, he "should seek to attain victory over the enemy only with the aim of protecting his people, also bearing in mind the need to protect all life". Such a ruler, therefore, may escape the negative karmic fallout of killing. Moreover, the text continues, even in time of war, anger should not lead to the gratuitous destruction, particularly of "fruit-trees or harvest as these are 'sources of life commonly used by many sentient beings who have not produced any faults', including local deities and animals" (Harvey 2000:253). These dictates echo strongly in my informants' testimony of the exploitative use of resources by the raiders during the occupation, in particular the slaughtering of animals, as mentioned above. I collected numerous testimonials about Ladakhi men, including Phuntsok Stanzin, who, upon being given the choice to leave their captivity, decided instead to follow the raiders in order to care for their confiscated horses. Horses were certainly important assets, but, given the Buddhist worldview, moral considerations must be taken into account when pondering the traumatic effect the raiders' slaughtering of animals had on Ladakhis.

At one point, Phuntsok Stanzin and two fellow villagers were forced to carry loads towards Khaltse. On the way food was scarce and they were starving. Phuntsok Stanzin worried about his hungry horse, too. The raiders told them they would be set free in Saspol, but that their horses would be kept until they reached Khaltse. The prospect of losing a horse was bleaker than remaining captive and all three men decided to continue towards Khaltse. After some time, however, Phuntsok Stanzin reasoned that if he did not escape, the raiders would likely never let him go. And, in this, he was probably right: many Ladakhi captives regained their freedom only when the UN cease-fire ended the conflict and then had to make their way home in the middle of winter from distant Baltistan over the course of several weeks.

As they neared Khalste, the three men escaped into the mountains at the first opportunity, and eventually reaching Hemis Supackchan village. There, they learned that more raiders were coming from the Chagatse La pass near Sumdo. This was not good news, as it meant that the raiders were now coming in from multiple directions, further complicating the Indian army's defense (see Figure 6). The group of escapees stopped their flight for a moment in the mountains of Hemis Supackchan and performed *storma*, a religious ritual meant to ward off evil influences and danger. Their situation was desperate and the support of deities, they felt, was necessary to overcome it. Afterwards, they trekked towards Likir under the cover of night and, as they did not encounter any sign of the raiders, they decided to press on towards Nimoo. Reaching Nye in the middle of the night, it was with great relief that they encountered villagers gathering their animals for use by the Indian army: reinforcements had finally arrived. At long last, there was hope of driving back the invaders.

* * *

The Indian army's defensive task in Ladakh was daunting and its eventual success relied heavily on the involvement of the local population. During the time that Phuntsok Stanzin was held captive, many Buddhist Ladakhis provided support for the Indian troops. The Lahauli officers arriving from Srinagar appealed to Buddhist unity and Himalayan imagery in recruiting Ladakhi volunteers. One of my informant remembers Major Prithi Chand's speech to the inhabitants of Nye: "People of Ladakh and people of Karja [Lahaul] are under the same star, and therefore it would not be right for us to leave you all to die here. That is why I came along and brought some men with me". Reflecting on the motivations for enlisting, this informant told me: "It was done for our land [Ladakh], for our families, and to protect

everything". But according to many there was also a strong financial incentive, as work for the Indian army came with a salary and, at the time, many Ladakhis were crippled by debt dating to the Dogra rule, as discussed in Chapter 1.

Figure 6. *Informants and Pema discussing the position of the invading forces in the mountains above Hemis Shukpachan village (photo by author)*

Being a soldier by definition poses an ethical dilemma for Buddhists. In comparing Buddhist and Hindu texts, Harvey (2000:253-254) explains that the Bhagavad Gita, one of the foundational texts of Hinduism, communicates the idea that "if one's role in society is that of a warrior-noble, then it is one's religious duty to go into battle, when called to, and that one who dies in battle goes straight to heaven". By contrast, says Harvey, Buddhist writings make no such allowances: when asked whether a soldier who falls in battle is reborn in a special kind of

heaven, Buddha, after a moment of reflection, answered that such a person will reborn in hell or as an animal.

Torn between economic motivations, patriotic obligations, and moral prohibitions, many Ladakhi recruits likely underwent a moral crisis when called on to fight. Although patriotism was a strong motivating factor for many, some of my informants consider having been enlisted by force. As *meme* Sonam, whom I met in Basgo (see below), told me, when young Ladakhis were given arms and exhorted to go fight in Khaltse, "some went crying and some went singing". Most Ladakhis barely knew how to handle a gun. One of my informants from Nye recalled how he was tasked with patrolling Khaltse, yet, "At that time, I didn't even know how to use the gun too well. Whether it was to be life or death, it was in the Buddha's hand."

However, Ladakhis' limited firearm skills were more than compensated for by their thorough knowledge of the territory, their acute sense for moving through the mountains, and their familiarity with the tracks and paths criss-crossing the region. These skills proved invaluable in gaining advantage over the invaders. Testimonies from various locations recount how villagers would lure the invading forces into Indian army ambushes. In some cases, Ladakhis would mislead raiders by making fake tracks along mountain trails, creating the impression of large Indian army contingents moving through the region. Another tactic was to make their goats walk behind Indian contingents, thus concealing the troops' footprints. Villagers guided Indian troops through mountain trails. Others acted as spies and lookouts. For instance, people told me that one Nimoo villager whose house was located on a high mountainside was able to provide valuable information to the Indian troops, since he had an excellent viewpoint from

which to observe the raiders' whereabouts. The same man also guided Hari Chand and his commandos through the mountains after they destroyed the mounted gun in Basgo.

At the climax of the threat to Leh, which lasted from July to October 1948, raiders were positioned in the villages of Sumdha, Saspol, Basgo, Nimoo, Umla, and Taru (see Map 3). Informants who lived in the occupied villages speak of this period as "when we were under Pakistan". The villagers had to provide for the raiders in various ways. In some places, every household had to provide 12 goats to the invaders as rations. Raiders took up residence in some households, forcing village women who were often on their own (as Ladakhi men were either held captive for forced labour or were hiding in the mountains to escape such lot) to live with them. Many women were told to wear their *perak*[59] and jewelry, and to perform dances. Testimonies suggest that the women offered a degree of resistance. An elderly woman from Nimoo told me how a group of raiders occupied her in-laws' house. With them was a Muslim Ladakhi who had joined the raiders. He goaded her mother-in-law, boasting that they would soon reach Leh and buy gifts for her, as no Indian army would stop them. She remembers her mother-in-law as a brave woman who confronted her persecutor, telling him: "whoever may die [because of this situation], let it be so"!

India's victory came as a great relief for the Shammas, as the people of the Sham Valley are known. It is no exaggeration to say that it also positioned the Indian troops, and by extension the Indian state, as saviors in the eyes of Ladakhis. Although, as I have argued, Ladakhis' contributions were fundamental to the success of the defense operations, in their eyes, it was the Indian army's military prowess that had delivered them from yet another oppressive

[59] A *perak* is a large headdress ornamented with several gemstones (mainly turquoises) traditionally worn by Ladakhi women.

power, ushering in what Ladakhis who remember those times see as a new era of liberation. Gratitude towards the Indian state is ubiquitous in the discourse of elders. Reflecting on the outcome of the war, Phuntsok Stanzin told me: "We suffered a lot under the Pakistanis. We are grateful to Hindustan and Colonel Hari Chand". Shamma's depictions of Major Hari Chand as a heroic figure, a great man (*spao*), and even a quasi-supernatural being are particularly telling[60]. The Major's exploits left a strong impression on people in the Sham Valley; most of my informants mentioned his name at one point or another. Another figure in the same mold was Colonel Prithi Chand. Both have become part of Ladakhi folklore: elders sang for me excerpts of a song extolling the pair's exploits and which apparently resounded throughout the Sham Valley when the raiders were expelled[61]. As Cruikshank (2005) and others have demonstrated, the marks left by encounters between cultural groups live on in oral and written narratives, providing valuable sources of information on the effects those encounters had on people and places. The way Ladakhi elders talk about "Hindustan" during the war conveys the perception that the Indian state came to Ladakh as nothing less than a savior, delivering Ladakh from raiders during the war and, as we will see below, from the poverty that afflicted Ladakhis since the time of Dogra rule.

[60] In their account of Partition, Kaul and Kaul (2004:177) write: "[Major Hari Chand] was a high-spirited, enterprising young man of temperate habits […]. He was self-restrained like an ascetic in his appetites and believed in high ideals in the matter of social relationships. Possessed of a high degree of aplomb, he seemed destined to play a decisive role in the grim drama for which the stage had already been set".

[61] Elders could not recollect all the words of the song, but I recorded the following lyrics: "They [the raiders] were being chased away from Taru *phu* and then they sought shelter in Phyang *phu* and they littered the *phu* with shits all around. The Baltis were being driven away by Hindustani army from Taru *phu* and they were caught in Phyang *phu*. Hail to Ladakh! Hail to Colonel Hari Chand, hail to Colonel Prithi Chand!" In the song, Major Hari Chand is later referred to as Colonel, a tittle he earned during the war. According to information collected during interviews, the song's reference to the soiling of the *phu* alludes to the raiders' excessive consumption of meat.

Weathering a Stormy Past

In Basgo village, up on a craggy clay mountain, stands the Rabstan Lhartse fort. Today a decaying, crumbling ruin, the palace once withstood a three-year siege, in the 1680s, by Tibetan-Mongol forces. When king Delek Namgyal could no longer hold out, he appealed to the Mughals for assistance, who sent reinforcements from Kashmir and Baltistan and they defeated the invaders (Halkias 2013). Nearly three centuries later, Basgo once again witnessed a Ladakhi stand against foreign invasion. On the side of the road that runs below the fort, stands Hemis Labrang[62], the site of a decisive event in the denouement of the first war between Pakistan and India in 1948. That on this occasion the forces of Baltistan were the invaders is testimony to the shifting alliances that have marked Ladakh's history.

At mid-morning one day in February, Pema and I sat next to this site, then still unaware that 65 years before it had been the scene of a pivotal event in the partition of India. By this time I was well along into my fieldwork, certainly long enough to notice something uneasy about people's demeanor in Basgo, where we were since the past few days. Initially I thought that I was perhaps bothering people with my questions, which surprised me, since from the start of my fieldwork I had been amazed by how enthusiastic Ladakhis were about answering my queries. And, what is more, discussing the events of partition seemed to have a welcome cathartic effect for many. But in Basgo, things felt different.

Indeed, it was the question of partition that had brought me to Basgo in the first place. During

[62] In Ladakh, a *labrang* is a building used by monasteries to shelter their animals and store goods such as butter, wool, and grain collected from villagers. In the past, *labrangpas* were people who did not have property or land and worked for the monastery as servants at the *labrang*.

many of my previous discussions with informants, the name of Basgo came up recurrently, as it was here that Major Hari Chand destroyed the dangerous howitzer gun. Everybody described this event as a turning point in the conflict: to the Shammas, it was a given that it was the destruction of the cannon that allowed the Indian troops to repel the raiders. As my aim was to better understand the partition and its impacts on Ladakh, I needed to investigate such an important event more closely. Basgo was a must, I thought. Yet, for reasons I could not work out, people here were not as keen to discuss the partition as informants in other villages had been. I was beginning to nurture a feeling of insecurity and even a complex about my very presence as an intruder in this community. I considered leaving, yet I was torn: the prospect of finding answers to Basgo's apparent enigma was tantalizing.

As I burdened Pema, who was just as perplexed as I was by the situation, with my insecurity crisis, an elderly lady approached us. We chatted for some time and I explained to her what I was doing in Ladakh. I then asked her about changes in the environment she had observed over the years. She began talking about the water situation in Basgo and how badly the village had been affected by the 2010 floods (see Chapter 6). Then, out of the blue, she asked Pema whether he was a Muslim from Leh as he was "soft-spoken". Although with his friends Pema regularly used slang expressions, he was always careful to speak in a calm and composed manner when we worked. Our informants also often quickly pegged him as an urbanite from Leh, given his style of dress, refined manner of speaking, and obvious lack of practical knowledge of certain aspects of Ladakhi village life. But this was the very first time anyone had asked about his religious identity and, more intriguingly still, the woman very clearly lowered her voice to a hush when saying the word "Khache" (Muslim). After Pema answered that he

was a Buddhist, the woman went on to complain that the younger generations today no longer wear the traditional dress, implying that it would have made Pema's identity much easier to ascertain. After talking a while longer, I asked her if she had been in the village during the partition. Lowering her voice once again, she recalled the events of the period. Clearly, they still weighed on her after all these years. She pointed to the Hemis Labrang building next to us and informed us that it was the exact spot where the 3.7-inch howitzer had stood, guarded by raiders who were killed when Hari Chand's commandos attacked. She then pointed to the gate of the now vacant building. At this place were some hostage villagers who had been forced by the raiders to act as watchmen outside the building. When Hari Chand and his men made their attack, these local hostages did not warn the raiders and, in fact, told the commandos where the canon was located. For this, they were later executed by the raiders, on the bank of the Indus. "One among them tried to escape by jumping into the river but he was shot in the water", recalled Phuntsok Stanzin during our discussion in Nimoo, adding "I remember how the blood colored the water red". The assassination of fellow villagers created great consternation in Basgo, where people had been at the mercy of the raiders for months. "I still remember the gunshots," confided to me another lady in Basgo.

Our elderly interlocutor did not see all this happen with her own eyes as she was grazing sheep and goats in the pasture between Basgo and Likir at the time: the village head (*goba*) had dispatched a few villagers to stay in the pastureland with animals in order to cover the commandos' footprints and facilitate their escape. She did however see Hari Chand and his troops as they headed towards Nubra Valley and back to Leh. "The Indians went off at noon", she said, adding, "the Buddha must have been guarding them, as they were going at mid day".

Braving travel in broad daylight, Hari Chand and his commandos seemed to have the blessing of divine power, in many villagers' view.

* * *

In the occupied villages, the war played out along communal lines. The raiders denigrated Buddhists for their customs, calling them *nalbu* (children of anonymous fathers), in reference to the practice of polyandry. Buddhist were prevented from performing religious rituals. As one informant from Saspol told me, villagers would be gathered together, forced to listen to raiders' speeches and challenged to raise their hand if they believed that Buddhism was great. Another informant from Skindeang, remembers how the raiders made all the men and women gather, tied the men's hands and forced them to shout, "Long live Pakistan, death to Hindustan!"

The violence, both physical and psychological, that accompanied the formation of independent India gave rise to unprecedented tension and mistrust between Buddhists and Muslims in Ladakh. Trading activities in the past were characterized by interactions between people of Buddhist and Muslim confessions. Buddhists trading on the route towards Kargil were welcomed by Muslims and given a place to sleep and shelter their animals – usually in the household's animal shed, as per age-old practice. Muslims travelling towards Leh could expect the same welcome. Muslim Ladakhis from Chiktan area of Ladakh[63] regularly traveled to the Sham valley for trade, where villagers gave them shelter and food (*dangsa*), as with all visitors. Chiktanpas bartered various goods, such as vegetables, seeds, apricots, and stone pots

[63] Chiktan is a village of Kargil district, South of the Indus, towards the Line of Control.

(*doltok*), in exchange for salt, wool and other commodities. They would also take odd jobs, clearing farmland and building houses. Religion seems not to have been a source of tension between the travellers and their hosts. Chiktanpas were renowned to be great storytellers, an informant told me, and Buddhist hosts would stay awake late into the night listening to their Muslim guests' stories, an image that evokes rather congenial relations. Yet, there was an awareness of inequalities. The Chiktanpas traded and worked in Sham because their homeland was comparatively poor. In talking with me, Shammas commented on how people from that area were poor, a condition they invariably attributed to a lack of land. These perceptions are reflected in Buddhist Ladakhi idiomatic expressions. Elderly Ladakhis still say: "It is like the Balti got salt!" to refer to someone who is enthusiastic about being offered something. Another saying asks, "What does a Balti not need?", implying that a Balti has nothing at all.

If the reasons behind the invasion of Ladakh in 1948 remain unclear[64], many people in Sham believe that the motivation was access to land, an assumption that calls on long-standing perceptions of cultural practices[65]. As the invading forces moved through the villages of Sham, many villagers were surprised to recognize familiar faces among the raiders: people from the

[64] The monasteries of Ladakh were reputed to house substantial riches, which may have attracted the invaders. Given that they expected an unarmed population offering little resistance, the raiders may have forseen an uncomplicated invasion. In this vein, Prasad and Pal (2005[1978]:326) suggest that "[b]y attacking Leh, the raiders could obtain wealth and women". Other authors have speculated that the invasion was part of a plot to create an independent state of Kashmir, which would be free from the rule of the Hindu Dynasty of Hari Singh (Akbar 1999). As Sen (1969:189) remarks, some have argued that the invasion of Kashmir by tribesmen was "motivated by a burning desire in the hearts of the tribesmen to 'liberate' their Muslim brothers from the tyranny of a Hindu regime", but in Sen's view, this reason alone is unlikely to account for the invasion of Buddhist Ladakh.

[65] As discussed in the previous chapter, the practice of polyandry is seen by Ladakhis as a custom that preserves land assets. It is often justified by comparisons with the agrarian situation of Muslim Ladakhis, who have fewer assets, something Buddhist Ladakhis attribute to the practice of splitting land among brothers.

"Balti *rong*"[66], an area that includes Chiktan village, had joined the invaders in their march towards Leh, guiding the invading forces and acting as interpreters (see Map 3). Buddhist Ladakhis remember how they arrived in the villages pretending to be saviors, saying "*as-salamu alaykum*", the cordial salutation of Arabic origin adopted by Muslim Ladakhis, shaking hands and inquiring whether the villagers had been troubled by "Hindustan".

For the Shammas, the occupation was a period of turmoil and uncertainty. But for the Ladakhis of the Balti *rong*, it had the potential of reversing old inequalities and raising their status in relation to Buddhist Ladakhis. My informants insisted that people from the Balti *rong* were more cruel during the occupation than were the Pathans, whom many (though not all) depicted as "good at heart" and less abusive. One of my informants from Khaltse remembers how the Pathans would say that they were just military men who had to fight and that this fight was between them and the Indian army, not the population. Before the war, Basgo, Nimoo, and Saspol were not exclusively Buddhist communities, as each had several Muslim households[67]. As the raiders retreated before the advance of Indian troops, amidst chaos and fears of possible reprisals, Muslim families abandoned their homes and followed the raiders to Baltistan. After the events of the partition, travelers from Chiktan stopped coming to Leh for barter and work as they had in the past. Clearly, relations between Buddhist and Muslim Ladakhis were different after the war[68]. Reflecting on past relations between the two communities, a man in Nimoo explained to me, "In those days there was no differentiation by religion between Balti [Shia Muslims], Kache [Sunni Muslims] or Boto [Buddhists] and the

[66] "Balti *rong*" refers to villages towards the Kargil district, in the area of Chiktan.
[67] Based on various accounts, the three villages together counted no more than 10 families of Muslim confession.
[68] Although not necessarily framed as a consequence of the first war with Pakistan, the question of the growing chasm between Buddhist and Muslim Ladakhis has been the object of a number of studies (see Gutschow 2006; Sikand 2006, Smith 2009, 2012, 2013a, 2013b; van Beek 1996).

travellers were given whatever they wanted and they did their own prayers and we did ours". He then added: "In those days people had good relations with each other".

The partition was traumatic for many Ladakhis. For those who experienced them first-hand, they are still a sensitive subject that continues to haunt them. As our encounter with the elderly woman in Basgo shows, the war left deep wounds and sowed seeds of long-standing tensions. Murder, rape (see below), looting, and various other abuses perpetrated during the war saddled Ladakhis with painful memories. Two communities that once lived in harmony have lived in mistrust ever since.

"When it is war, what good can happen?"

Before sleeping
There are some questions to be answered
Before dying
There are some statements to be made
Tibetan Proverb

Meme Sonam lives in Thunglung, the upper part of Basgo village, in a house that has seen several generations grow. Wearing his beard in the traditional Shamma style, a *tibi*, the traditional Ladakhi hat, and turquoise earrings, he has a strong and confident air about him. We came to *meme* Sonam because the father of the house where we were staying in Basgo told us to visit the old man who, as a former trader, would have many stories to share. We took the scenic route up from the Indus, where our host family lived, to Thunglung, a few kilometers away. As we approached his house, *meme* Sonam was sitting outside under the warm sun, calmly spinning his tall prayer wheel.

We chatted for some time with *meme* Sonam about his trading years. I wanted to eschew the subject of the partition, having finally decided to avoid it while in Basgo as it felt too sensitive a matter. After some time, I asked *meme* Sonam about the changes he had observed in the environment over the years. He replied that snowfall had significantly decreased, a common observation among Ladakhi elders. I asked him what the reasons for that were, in his view. "I don't really know", he answered. "[Lama] say that people are becoming evil-minded and so it is because of that". He paused for a moment, spun his prayer wheel, then continued:

> In those days people were good and kind. Nowadays people kill each other. In those days people killing each other was never to be seen or heard. It is only when the Pakistani war took place that we saw people getting killed. The Pakistanis had come here and they killed five[69] people in our village, below the palace. From that time onwards I saw people getting killed.

As he talked of the partition, *meme* Sonam's speech was punctuated by long moments of silence. Recalling the events was obviously painful. *Meme* Sonam was in his teens when Basgo village was occupied. When the massacre at Hemis Labrang took place, he was forced by the raiders to carry the decapitated bodies of their comrades to an improvised burial site. "We had no choice, else they would beat us", he recalled. *Meme* Sonam witnessed shocking scenes of inhuman behavior during the occupation. The young boy he was managed to escape from the painful work he was forced to do; as he recollected these scenes to us, it was obvious that what he saw has remained forever imprinted on his mind. Decades later, he still remembers these scenes in vivid detail, perhaps more vivid than he would want to.

Meme Sonam carried on sharing his memories of the occupation, explaining how village men

[69] Here, *meme* Sonam refers to the Buddhist Ladakhis who were guarding the mounted gun in the Hemis *Labrang*. The number of people executed differs in the various testimonies I collected, though never exceeding five.

where forced by the raiders to work, how homes were looted, and how animals were killed in great numbers. At this point, I was unsure whether I should find a way to stop him from relating these events from a tragic past. But I decided against it: sharing the experiences seemed to bring *meme* Sonam relief, while Pema's role as interpreter morphed into that of confidant. Ladakh is no exception to the contemporary reality of increasingly many people growing old alone, which holds true for many societies. This loneliness can take on various guises: a growing generational gap, too, can be a source of isolation. As mentioned, early on into my fieldwork I realized that Pema's presence had a significant, positive influence on the outcome of our interviews: elders were openly enthusiastic about having a young Ladakhi show interest in their perspective on local history.

While men were subject to mistreatment, detainment, and forced labor, girls, explained *meme* Sonam, often had to run away to hide, recalling that, in some instances, "some were forcefully used". "When it is war, what good can happen?", he wondered aloud, desolately. In May 1948, when the situation was critically unstable in the Sham Valley and Indian army's promises of reinforcements remained unfulfilled, the President of the Buddhist Association in Leh sent a message to Major-General Thimayya, India's commanding officer in Kashmir, warning that the raiders were now only 27 km from Leh and that "[t]he promises of immediate help had 'deceived' people, otherwise they would have fled and saved at least their lives and the honor of the womenfolk" (Prasad and Pal 2005[1978]:331), which suggests that accounts of rape followed the raiders' advance through the territory. Among the testimonies I collected, accounts of rape often emerged, albeit evoked with utmost discretion[70]. Attempts at

[70] In her account of the events of the partition in the Zanskar area of Ladakh, Gutschow (2004:24-28) reports cordial relations between the raiders and the local population: "There were no stories of rape or other horrific

resistance were met by violence. One story in particular also marked people of the Sham Valley: one of the Pathan leaders of the occupying forces kidnapped a woman from Saspol, a mother of two children, and brought her to Baltistan by force[71].

According to *meme* Sonam, the scenario would have been much different today: "Had they come in these times they could have been easily killed by all the [village] men. In those days people were very scared, as killing a human was not known at all". Looking back at these events, *meme* Sonam observed: "After the war even the people changed and became bad". Absorbed in thought, he continued: "Maybe because they saw people getting killed and from then, people were no longer scared." He paused for a moment, then fervently exclaimed, "They became fearless, but also evil, *Konjok*! Nowadays if Pakistan happens to come, people would kill them as they have seen lots in their life. Such times have come about."

After these words, the three of us stayed quiet for a while, the silence occasionally broken by the spinning of *meme* Sonam's prayer wheel. The cold wind was blowing, perhaps as it had been the winter the raiders left, while its inhabitants struggled to find a semblance of theirs. *Meme* Sonam then showed us his necklace, which was hidden in his *konchas*. The beautiful object was made of shells used in the prayer wheel. Placed between the rotating wheel and the handle, these shells, he explained, become worn out as he spins the prayer wheel. Each of the shells, of which he had accumulated 23, represents about two years of prayers. The collection, he explained, was the fruit of his prolonged attempt to purge his past through devotional

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abuses which had plunged other border regions into panic and terror during this same period" (Gutschow 2004:27). Testimonies from the Sham Valley, however, contradict this observation, possibly because Ladakhis from the Balti *rong* did not reach Zanskar; according to my informants, it was men from this community who were guilty of rape.

[71] Veena Das (1997; 2006) has written on the question of rape and abduction during the partition. See also Butalia (1993, 1998), and Menon and Bhasin (1993, 1998).

practices:

> I have committed many sins and so I am praying a lot by rotating the *mani* [hand prayer wheel]. I have killed many sheep and goats. I killed them to eat. In those days there was a lot of cattle and no that much of vegetables like today. At that time, it did not occur to me that it was a sin to kill them as I did not know *chos* [dharma, religion]. As a youth, I killed many sheep and goats and ate them as well. I have taken many lives and so I am now doing lots of *mani* as a way of asking for forgiveness. I am not sure if I have been able to undo all my sins. I think I haven't as yet. I have built *chortens* as well, in asking for forgiveness.

Then followed another long silence, *meme* Sonam seemingly lost in thought, gazing at the sky. "I should not have killed the animals but what can I do, I killed them?" he concluded, after which he fell silent once again. After some time, he murmured invocations, as if breathing a long, heavy sigh.

In Buddhist cosmology, humans affect their environment through both the physical aspects and the moral qualities of their actions. In other words, as Harvey (2000:152-153) explains, "karmic effects sometimes catch up with people via their environment". This conception of the world has ecological ramifications: since the environment responds to the state of human morality, humans should ponder the implications of their actions. But how does Buddhism appraise morality? As per religious ethics, morality is "other-regarding", that is, focused on the impact of our actions on others; yet, as Harvey (2000:2) explains, this is an incomplete view of Buddhist morality, which is also "concerned with the quality of our interactions with non-human sentient being too". The boundaries of morality for lay people are defined by a virtuous life in accordance with key Buddhists values. These values are part of the Buddhist aspiration to overcome suffering, which implies defeating greed, attachment, hatred, and disillusion and requires that individuals cultivate love, kindness, compassion, good

relationships, social harmony, and cohesion, as well as social ethics. As with any religion, adherents of Buddhist religious philosophy do not go through everyday life following these values as one would follow a guidebook, especially since values do not always translate into well-delineated precepts. Nevertheless, these values are intrinsic to and entangled in Buddhist Ladakhi culture and pervade many aspects of Ladakhi life so that they form a moral code that people observe to varying degrees of faithfulness.

Speaking for another religious context, Weber (1958) has demonstrated how morality is framed as inward-acting and *meme* Sonam's testimony and dedication to prayer, like so many others of his age, tells us that in practice – rather than in doctrinal form – this is also representative of Buddhist Ladakh. Therefore, we should be careful not to see morality as the underlying social contract of social organization in Ladakh. In many instances, people act against their moral code, for a myriad of reasons. Awareness of the implications in term of retributions and for future lives is also a strong incentive to religious behavior. Thus, as *meme* Sonam sees it, people today are reaping the consequences of immoral actions as their surrounding environment is changing. His view draws on religious beliefs: as we will see in Chapter 4, according to Ladakhi beliefs, forces that animate the landscape are particularly responsive to human action. His reflection echoes those of many Ladakhi elders: even if the material consequences (a depleting environment) of changing moral values did not take place immediately after the war, it was this critical event that prepared the ground for them to happen[72].

[72] See also Bhan's (2014:1-3) discussion of the Brogpa of Kargil district in Ladakh, who believe that the recent Kargil War has angered the local deities. See also Butcher (2013a:165) for a brief comment on local perceptions of the link between the independence of India, people's changing attitudes, and recent natural disasters.

As per Tibetan Buddhist conception of life cycle, old age is a time to accumulate merit in the last stages of this life in view of future reincarnation, whether through prayers or the sponsoring of various religious activities. No matter where one goes in Ladakh, elders spin prayer wheels under the sun. Old age is also when attitudes towards animals change (see also Childs 2004:131; Norbu 1972:75). *Meme* Sonam is haunted by a past during which he was forced to act in ways that clashed with his moral values. Spinning his prayer wheel, he reflects on his actions. Did he kill animals without second thought out of pure ignorance of moral creeds? Or did seeing the gratuitous taking of human life when he was young make him become bad as well? Whatever the answer he finds in the end, the partition was pivotal for *meme* Sonam. Like many other Ladakhis of the older generation, his views on changes happening today are still informed by that transformative turning point when the clash of newly-formed states changed the course of local history and the people who lived it.

A Bridge Over The Indus

If a man ill-treats others
A worse retribution awaits him
Tibetan Proverb

A short trek eastward from Khaltse village leads to a police checkpoint. Here, the road splits into two. One branch leads further upstream along the Indus to the northeast, the other goes towards Kargil and Srinagar. Vehicles must stop at the barrier while an officer checks the travellers' papers and inquires about their destination: both the roads lead towards the Line of Control and movement here is strictly monitored. A few meters from the checkpoint stands a tall *chorten*, a Buddhist reliquary and shrine, evidently recently built. It faces an iron bridge that spans the Indus. Like every bridge in Ladakh, it is covered with multiple prayer flags, worn

thin by the wind. Adjacent to it and slightly lower is a wooden structure: the remnants of a bridge hanging precariously over the river. At one time, it was the fate of the Sham Valley that hung in the balance on this very spot (see Figure 7).

Figure 7. *Wooden bridge over the Indus in Khaltse village, rebuilt during the first Indo-Pakistan war after it had been burned down by in Indian defense (photo by author)*

As they attacked Khaltse on May 22, 1948, the raiders advanced towards the wooden bridge amidst heavy firing (Prasad and Pal (2005[1978]:329). At this point, Indian army officials estimated that 500 raiders were in the Khaltse sector. They were far better equipped in artillery than were the defending forces. The mass desertion of the Indian troops that followed this attack left Major Khushal Chand with almost no men to resist the invasion. That same

night, Major Khushal Chand made a decision that is remembered in Indian military annals as crucial to saving Leh: he set the bridge on fire before the raiders could cross over the Indus to the northern side, significantly delaying their advance. The wooden bridge was rebuilt shortly thereafter, still during the war. Although no longer in service today, its remnants are a fragment of history inscribed in the landscape.

Figure 8. *Chorten dedicated to Major Khushal Chand, next to the Indus in Khaltse (photo by author)*

While Indian troops resisted the attack on Khaltse and waited for reinforcements, fear, confusion and suspicion prevailed in the village. Outsiders were quickly branded enemies. Salt traders from Chiktan area, who had set up camp on the northern side of the river, and Muslim

revenue officials working in the village at the time came under suspicion of spying for the raiders. War-time justice for crimes real or imagined was carried out quickly. The suspected spies were drowned in the Indus. My conversations with people in Khaltse made me realize that decades after this incident, the pending karmic retribution of this sinful act was apparently still a source of apprehension. My informants believed that Major Khushal Chand did not escape retribution for having ordered the killing of the innocent people near the bridge: he died at the young age of thirty-seven.

According to Buddhist belief, Harvey (2000:15) explains, those who take lives will have their own lives shortened. Even in time of war, killing will lead to bad karma. Given that Buddhism lays great importance on the motives and intentions behind actions, severe acts of killing, such as the massacre that took place at the bridge, are likely to bring about severe retribution. And as per the law of karma and the principle of reincarnation, retribution can actualize at any moment. Perhaps because of this, informants told me that a reincarnated lama of Ladakh who was a relative of Major Khushal Chand had apparently ordered the construction of the *chorten* that today stands where the massacre took place. Magnificent in its intricate details, its colors still bright, as time has not yet had a chance to dull them, the tall structure contrasts with the surrounding bleak landscape and the aura of the place (see Figure 8). Attached to the *chorten*, dozens of prayers flags flutter in the wind. Behind, the road disappears into the mountains, winding its way towards the border. The shrine carries two commemorative plaques. One confirms that the *chorten* was sponsored by the family of Colonel Khushal Chand and inaugurated in 2012, as well as honoring the contribution that the Colonel and his brothers-in-

arms made to the defense of the territory in 1948, when Ladakh was "bare and defenseless".

To the right, the second plaque further extols the Colonel's courage in more detail:

> Colonel Thakur Khushal Chand, MVC
> (1919-1957)
> A Life of Exceptional Courage and Dedication
>
> *
>
> IEC 9090 Maj Khushal Chand of the 2 Bn The Dogra Regiment was one of the two officers who volunteered to go to Leh in Feb 1948 to help in raising a local militia force and to conduct the defense of Ladakh Valley.
>
> For four months, this young officer, with a platoon of the J&K State Forces and twenty local militia hastily trained and delayed the enemy advance south towards Leh, along the Indus Valley.
>
> Major Khushal Chand conducted a guerilla warfare of a skillful nature giving the impression to the enemy that he had many more men than he actually had. On one occasion, he held the Khaltsi Bridge for 24 hours with just himself and one sepoy. At night, covered by the sepoy, who kept on firing on the opposite river bank, Major Khushal Chand crawled dowin to the bridge and set it ion fire. This delayed the enemy for a further week.
>
> Having no communication with Leh, he made frequent visit there to keep his command in the picture.
>
> Throughout these operations without proper rations, without mortars and with an acute shortage of ammunition. Yet, Major Khushal Chand led his small band with vigour and skill and by personal example of daring courage. He carried out all his task successfully, thus maintained the high traditions of the Indian Army and setting an example to those serving with him.
>
> The young men of Ladakh, whom Major Khushal Chand trained, were later transformed into the famous Ladakh Scouts. After the operations in Ladakh, Major Khushal Chand, then barely 29 years or age, was promoted as Lieutenant Colonel. He continued to serve the army with disctinction and commanded 9 Dogras. Aged barely 37 years, his brilliant career came to an abrupt end when he died in a plane crash in Apr 1957 in Laos, while serving with the United Nations Organizationas part of the International Control Commission.

Ladakhis believe that building a *chorten* is a potent way of purifying negative karma and "obscuration"[73] and enables one to gain great merit (see also Tenzin Menkyi 2014). There are two facets to the history of every *chorten*. First, the identity of the sponsor – an individual, a family, a group of villagers, an entire community – is generally common knowledge and easily verified. The second facet, however, are the reasons for its construction and these are often the object of speculation. The *chorten* facing the bridge at Khaltse is seen by many Ladakhis as a way of purifying negative karma. Inaugurated more than half a century after the deeds it commemorates, the *chorten* shows that history is alive and well here, and that its interpretation remains closely tied to local cultural beliefs and values.

The taming of forces that dwell in the landscape has deep roots in Tibetan mythology, in particular the construction of architectural structures designed to stabilize negative geomantic influences, which has been described as the progressive subduing of various spirits and gods (Samuel 1993:168; see also Gyatso 1987; Mills 2007). Analyzing symbolic control over the landscape in Ladakh, Butcher (2013a:176-183) describes how in response to the floods that affected the region in 2010, a *chorten* was built in Leh on the advice of the Nechung Oracle, who is the protector of the Tibetan government in exile. Butcher also notes that the construction of a one-hundred foot high, gold-plated statue of the Maitreya in the Nubra Valley of Ladakh, completed in 2010, was meant both to protect the people of the valley from increasing water problems (deluges and shortages) and to ensure peace, since the valley

[73] Tibetan Buddhism recognizes various forms of obscuration (*sgrib-pa*), also known as obstacles or "the veils that cover one's direct perception of the nature of mind." The Rangjung Yeshe Dharma dictionary describes certain types of obscuration: "the obscuration of karma preventing one from entering the path of enlightenment, the obscuration of disturbing emotions preventing progress along the path, the obscuration of habitual tendencies preventing the vanishing of confusion, and the final obscuration of dualistic knowledge preventing the full attainment of Buddhahood". http://rywiki.tsadra.org/index.php/Obscuration (retrieved on January 29, 2015)

borders on both China and Pakistan[74]. The *chorten* built at the site of the Khaltse massacre is also a way to tame negative forces in the landscape.

Of Rationalization and Retribution

During the winter that followed the end of the Pakistani occupation, an epidemic of smallpox (*dumpa*) spread through many of the villages of Sham. I came to learn about this sad episode in Tingmosgang, which had been particularly badly affected by the outbreak. One afternoon, Pema and I were chatting with an old man and a group of ladies, who sat under the sun while spinning wool. The old man talked about the events of the partition. Coloring his account with vivid detail and the occasional touch of humor, he had a passionate storyteller's verve for making everything sound like an action film. The gathering was in good spirits. The ladies took obvious pleasure in teasing the old man and jokes were flowing easily. During our stays in Tingmosgang, Pema and I often sat with this group, our visits always stretching into long, pleasant afternoons of conversation.

During one of these visits, I decided to start taking individual photographs of everyone in the group, promising to bring them the prints once I returned from Leh, where I was going the following day. One lady in the group was especially charismatic. Wrapped in a shawl adorned with paisley motifs, she was strong and had a piercing look. Adding to the impression, her hair was salt and pepper in color, a rarity among Ladakhi women, most of whom dye their hair as they age. As I prepared to take her picture, she told me that she was somewhat uncomfortable

[74] When the Geological Survey of India reported seismic activity in the region, the Dalai Lama, on the advice of the Nechung Oracle, ordered an 'earthquake *chorten*' to be built at his residence in Dharamsala (Mills 2006). See also Stutchbury (1999), for a discussion of geomancy in Spiti.

and pointed to the scars on her face, which I had at first mistaken for age spots. She wore the permanent vestiges of smallpox.

Tingmosgang and the neighboring village of Tia were particularly hard hit by the smallpox epidemic. The disease claimed many lives. Children and the elderly were especially vulnerable. The disease decimated entire families. In Timgmosgang, restrictions on movement in and out of the village and a curfew were imposed in an effort to contain the spread. Infected villagers were confined to their homes. Tia was entirely quarantined. Smallpox is a particularly dreadful affliction that causes painful boils to emerge on the skin of sufferers, covering the whole body. During the outbreak, the sick were given the grim task of carrying the bodies of the dead to the river, where they would be disposed of. My charismatic interlocutor was overcome with emotion as she recalled the nightmarish scenes. Having barely recovered from the Pakistani occupation, the villagers were assailed by yet another ordeal[75].

Popular belief in Tia and Tingmosgang holds that the smallpox epidemic was imposed as punishment by Palden Lhamo, a female Dharmapala, or wrathful deity, who is venerated as the principal protector of Tibet (see Figure 9). In Khaza *gompa*, a monastery located in Tia, stands a statue of Palden Lhamo, its face is covered by nine veils, which can only be removed on certain specified days of each month. As the story goes, in the summer of 1948, when word of Pakistani raiders heading towards Leh reached close to Tia, in Khaza *gompa*, the monk acting as the monastery's caretaker (*komnyer*) unveiled the statue to ask for protection, but did so

[75] This was not the first time that a smallpox epidemic coincided with war in Ladakh: during the invasion of Zorawar Singh, in 1834, an outbreak of smallpox caused an estimated 14,000 deaths (see Aggarwal 1997:25; Kumar Bhasin 2006:57).

on a day that was not one of those prescribed. Palden Lhamo took great offence at this lack of respect and cast a curse on the entire community as retribution.

Figure 9. *Palden Lhamo, the female Dharmapala, or wrathful deity (Source: Wikimedia Commons)*

Reflecting on the recollection of likely fictious events, Gordillo (2004:64) points out that they often entice the listener to focus on subjective elements: "memory is always informed by meanings important for those who remember. […] The point is to unravel the meanings and fields of force behind the production and *any* memory" (emphasis in the original). In Ladakh, people's memories and interpretations of the events of partition are profoundly shaped by Buddhist religious values and notions of karmic retribution.

Thus Shammas call upon Tibetan Buddhist concepts in making sense of the traumatic events they endured. In their study of hegemony in the context of the colonial encounter in South Africa, Comaroff and Comaroff (1991) drew conclusions that are highly relevant to the discussion of Shammas' interpretation of the partition. The authors showed that the Tsawa

people acquired conceptual control of their changing world by appropriating systems of meaning from the colonial power, both in symbolic terms and for practical purposes. Through this process, the Tsawa reconceived their own cultural axioms. In the context of Ladakh, it is Buddhist concepts that allow Ladakhis to make sense of a traumatic past, articulating meanings in terms understandable within their worldview. And this process of interpretation has a direct influence on the way they live with traumatic memories today. The story of the curse of Palden Lhamo, therefore, provides a way to interpret the war that calls to Buddhist notions of retribution: since rules of conduct dictated by the deity were transgressed, she refused to protect the villagers from the war and exacted village-wide retribution in the form of a smallpox epidemic. The focus on the transgression perpetrated by the caretaker of Khaza *gompa* absolves the Shammas of bad karma as a cause of their misfortunes: the war came because they were not protected and they were afflicted by *dumpa* because of the deity's retribution, rather than because of wrongs they may have committed during the war. This narrative, therefore, answers existential questions about why Ladakhis just recovering from the war were made to suffer again so soon afterwards. From the perspective of a belief system that frames events in the broader spectrum of karmic fruitfulness and retribution, this narrative provides much-needed answers. But for *meme* Sonam and many other Ladakhis, the ethical conundrum of having participated in war will forever remain unresolved, not only because of pending bad karma, but also because the war has seemingly forever altered some ethical considerations; this is what *meme* Sonam implies when he maintains that today villagers would kill the raiders without a second thought if they would come to Ladakh[76]. This ethical

[76] In his translation of the biography of Drogpa Namgyal, a villager from Khaltse, published in German in 1940, Moravian missionary Samuel Ribbach, who served in Ladakh between 1906 and 1913, reports the smallpox epidemic as having taken place a decade earlier, in 1938 (Ribbach 1986:175-182). While many of my informants

conundrum will remain unresolved as long as Ladakh will be defined as a border area and its population will be sentinel citizens.

Although pacifism is a central Buddhist ideal, Harvey (2000:249) points out that, in practice, Buddhists have historically often had recourse to violence when called upon to defend territory. It is therefore interesting to consider what Buddhist scriptures have to say about participation in war and how Buddhists judge their own actions in such contexts. Discussing early Buddhist texts that address issues of war and non-violence, Elizabeth Harris (1994:47-48) explains:

> The person who feels violence is justified to protect the lives of others has indeed to take the consequences into account. He has to remember that he is risking [grave] karmic consequences for himself in that his action will inevitably bear fruit… Such a person needs to evaluate motives… Yet that person might still judge that the risks are worth facing to prevent great evil.

Given that in Buddhism the will and intention behind an act are as important as the act itself, the context of war can legitimize Buddhists' acting against their own moral code. Yet, no matter the reasons, violence and killing do not come without karmic consequences. War, even when imposed from the outside, does not exempt one from potential retribution for committing acts of violence. Thus, as Harvey (2000:252) explains, in a context of war, Buddhism may accept violence as a necessity of self-defense, but it never approves of violent acts.

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reported that the epidemic occurred after the departure of the Pakistani raiders, other were unable to remember when it happened. A few of my informants did recall the epidemic as having taken place before the war. Interestingly, all my informants from Tia and Tingmosgang reported that the epidemic took place during the winter after the war. It is not possible to verify whether two different smallpox epidemics took place, which would account for the discrepancies between my informants' accounts and that of Drogpa Namgyal. It is interesting to note, as well, that in Tia and Tingmosgang people associate the epidemic with a narrative linking religious beliefs to the war, suggesting that culture is indeed central to the processes of remembering and interpreting critical events.

Here, it is relevant to transpose Harris' reflection at the community level. Giving the view of the Sarvastivada Buddhist school, the 4th-century Indian Buddhist monk Vasubandu, explained: "when an army kills, all the soldiers are as guilty as the ones who directly do the killing; for by sharing a common goal, they mutually incite one another" (Harvey 2000:254). This idea resonates strongly with Ladakhi elders' apparent feelings of shame and guilt over the events of the partition: the actions of soldiers were in large part made possible by the support of the civilian population, as both shared the objective of freeing Ladakh from the raiders. The consciousness that their community sided with a military force, notwithstanding its defensive intentions, seems to still weigh heavily on Ladakhis.

Conclusion: A Power-Laden Landscape

The formation of postcolonial India in the Himalayas took place in a context of war, a war into which Ladakhis were thrust suddenly and unexpectedly. In this chapter, I have demonstrated how the first war with Pakistan created a crack in the landscape, a scission that divided a community along religious lines, a fracture imposed in the attempt to form nations by drawing lines on a map. The crack is also a profound split between the present era of "Hindustan", characterized by the pervasive presence of the state, and a past when people were, in the words of so many elders, perhaps poor, but happy at heart. As the next chapter will show, this crack is also a fracture in the everyday life of Ladakh, which has been redefined by the context of a border area in which Ladakhis are mobilized to protect the territory.

Van Schendel (2005) identifies two trends in studies of the partition. The first pays particular

attention to the price paid by regional cultures in terms of personal trauma and the displacement of millions of refugees. The second focuses on the high politics that lead to the partition. Van Schendel (2005:30), however, argues for a third view: a social history of the partition that would take into consideration the effects over time that the events have had on the social life of people who lived through them and how this shaped post-partition society. Such an approach is indeed necessary to understand how people in the Sham Valley relate to Ladakh as a place today. The historical event of the partition has remained unexamined by the majority studies of Ladakh. As the recollections of Ladakhi elders make clear, however, the events and their repercussions are well alive in people's memory and infuse their interpretations of a changing Ladakh.

In his study of displacement among the Toba people of Gran Chaco, Argentina, Gaston Gordillo (2004) asserts that places are as much the subjective outcomes of historical forces as they are objective entities. Memory, says Gordillo, is embedded in the experience of a place and is a dialectical process. This dialectical process is certainly at play in Ladakh today and is key to understand interpretation of the landscape of Ladakh. The first war with Pakistan left tangible physical remnants in the landscape of Ladakh – a building where a massacre took place, a chorten built as a memorial and many others. These elements have inscribed the war materially into the landscape. But the subjective outcome of the war – an altered moral order – is also inscribed in the landscape: karmic retribution has caused changes in the environment as a direct result of transformations brought about by the war decades ago. The subjective dimensions of the partition, therefore, also contribute to shape the landscape.

What are the consequences of the encounter between Buddhist Ladakhi cosmology and issues of warfare? The first war with Pakistan transformed the landscape of Ladakh into a power-laden landscape. This power takes on two different forms. The first, also stimulated by ensuing conflicts with both India and Pakistan, is embodied in the ever-increasing militarization of the landscape and the infiltration of related processes into the everyday life of Ladakhis, which I will examine in the next chapter. The second form of power pertains to the otherworldly but materializes through a changing environment. Buddhist Ladakhis believe that there is a dialogic relation between people and their surrounding environment, one which is mediated by local deities. The second form of power investing the landscape of Ladakh resides in the spirits that dwell in the landscape. Offended by changes in people's moral attitudes since the war, they have decided to alter the physical landscape through adverse meteorological conditions. When they look at the changing landscape, Ladakhi elders are constantly reminded that something in their society has profoundly changed.

Chapter 3
Taming the Mountains of Ladakh
Statemaking in a Border Area

When the whole country is flooded
A pebble cannot remain dry
Tibetan Proverb

It is about 70 years since Pakistan fled from here. Look at how much development Hindustan has made. Hindustan is very great.
– *Sonam Knurup, Skindeang village*

On the way to Choglamsar, a dusty town that has sprung up around a Tibetan refugee camp[77] 10 kilometers southeast of Leh, the terrain opens onto a stunning view of the surrounding landscape. To the west stands the magnificent Stok *kangri*. The summit, which has become a popular climbing destination among tourists, overlooks the palace of Stok village, where the fallen Ladakhi king was confined when Gulab Singh took control of the region in the 19th century. In many places throughout Ladakh, ancient royal fortresses today stand as the architectural vestiges of a bygone era, in stark contrast to the rough and ready military structures with which they share the landscape. On the right edge of the road, the landscape is blighted by a succession of unsightly tin-roofed military barracks surrounded by barbed wire. This is the headquarters of the Border Roads Organization (BRO). The BRO is in charge of road building and maintenance along India's borders and assists the army in times of war. Founded in 1960, when India and China were engaged in hostilities, the BRO is composed of

[77] According to the Central Tibetan relief committee, the present population of Tibetan refugees in Ladakh is about 7,000 people. The settlement in Choglamsar was established in 1969, with an initial population of 617 Tibetan refugees, the majority of whom were nomads from the Western part of Tibet which borders Ladakh and who fled to India in the aftermath of the Chinese occupation of Tibet. As mentionned, I found that Tibetans and Ladakh, except for religious matters, have very little interaction, the former playing a very marginal role in local dynamics.

engineers from the Indian army's General Reserve Engineer Force (GREF), as well as various support personnel, within a quasi-military structure[78].

Figure 10. *Chorten dedicated to the workers who lost their lives while working for the Border Road Organization (photo by author)*

On the mountain slope, the BRO's insignia, twin peaks covered with snow, was drawn on the rocky mountain with stones painted in red, white and blue. Just below, tall letters spread over about 100 meters read "Project Himank" and another spelled "The Mountain Tamers". One of the BRO's many projects, the Himank program aims to maintain the region's road system. At the entrance of the BRO site stands a tall *chorten* which serves as a memorial: it is

[78] BRO website: http://www.bro.nic.in/ (accessed on October 17, 2014)

ornamented with a plaque inscribed with a lengthy list of the names of workers who lost their lives while attempting to tame some of the highest mountains in the world (see Figure 10). Next to the plaque, below the inscription "GREF memorial", is the following dedication, tinged with a noticeable degree of patriotism:

> This is a memorial for the General Reserve Engineer Force of the Boarder Roads Organisation. They were inducted into Ladakh in the year 1960 for development of road communications. Later they also carried out construction works of airfields, hospital, communication centers and other buildings. The General Reserve Engineer Force is an inextricable part of the life of Ladakh. This memorial is dedicated to the brave and intrepid men who laid down their lives in the service of the nation and to commemorate the achievements and glory of the General Reserve Engineer Force.

Today, the BRO has become an integral part of Ladakhi's life and is responsible, along with the army, for the smooth operation of everyday life in the region. Each year, Ladakh is inaccessible by road for almost six months: when snow cover the mountain passes, land transport, so essential to the region, is impossible. Then, every spring, as the BRO gradually clears the remaining snow from the roads, transport comes to life once again. The opening of the road takes place in an annual ceremony attended by high-ranking Indian army officers who pose for photographs as they cut a red ribbon signaling the re-opening of roads. In many ways, this annual rite epitomizes the creation of Ladakh's border landscape by celebrating its twin pillars: militarization and infrastructure building. It also highlights the implications of this mode of production for the population: while this annual ritual symbolizes the central importance of roads for the region, it also serves to assert the army's fundamental role in the lives of the local population, depicting its personnel not only as the guardians of the border, but also as heroes who make possible the operation of life for civil society and without whom Ladakhis would remain hostages of the mountains.

In this chapter, I analyze the taming of the mountains of Ladakh as a process of territoriality or, in other words, the process of the spatial organization of state administration within a given territory through control over resources and, by extension, the population. By "border landscape", I refer to the Indian state' conception of Ladakh as both a buffer and a fortress for the country, which results from its location at the borders of both China and Pakistan, as well as the topographical features of its terrain. This conception of the landscape materializes through military practices and various efforts to dominate a particularly arduous terrain in order to ensure closer control over the territory – what I call "taming the mountains of Ladakh" – and by extension, tighter security against antagonistic neighbors.

In doing so, I seek to expand on current approaches to territoriality by moving beyond the narratives of coercion that are commonplace in writings on the subject. My approach instead views the inhabitants of a given territory as participants in processes of territorialisation. In calling for going beyond a narrative of oppression in thinking on territoriality, I do not wish to suggest that the exercise of power by the state, be it physical or symbolic, is absent in Ladakh; a number of authors have examined this subject from various perspectives[79]. However, the

[79] Control over the population in Ladakh has been the object of scrutiny. Van Beek (1996, chapter 1) demonstrates how after the Treaty of Amritsar (1846), the British administration started to emphasize the categorization of land assets, as well as the proliferation of surveys in order to classify the local population in terms of criteria of caste, tribe and race; Smith (2011, 2012) has studied the link between "geopolitical territorialisation" and questions of reproductivity, natality, and religious intermarriage and how practices of territoriality motivated by religious communalism are achieved by the disciplining of female's desire and comportment; Aggarwal (2004) has studied how contemporary Ladakhi cultural performances and practices (festivals, popular films) are spheres of activities in which "border subjectivity" are formed; Aggarwal and Bhan (2009) have studied the development-security complex with the military sponsored social welfare project Operation Sadbhavna (Operation Goodwill), and recently, Bhan (2014) investigated how issues of warfare, counterinsurgency, humanitarianism, and militarization infuse the social an political order and regulate citizenship in the Kargil district of Ladakh. It should nonetheless be stressed that the relation between civilians and the army in Ladakh is not comparable to the one in the Kashmir valley, where the law of exception grants the Indian military definite power in dealing with the civilian population and where mistrust towards civilians prevails (Mathur 2013).

dimension of the imposition of state power on its own provides only an incomplete picture of state-society relations in Ladakh. There is a reciprocity between the state and citizens in Ladakh, in which the state and the citizenry each exert a mutual influence on how the other is shaped. I argue that theorizing this reciprocity can tell us much about processes of statemaking in Ladakh. Following armed conflicts in Ladakh's difficult, high altitude terrain, the Indian state sought to consolidate its presence in the area through militarization. In doing so, it opted for the institutionalization of Ladakhis' knowledge of the environment, in particular by establishing the Ladakh Scouts military regiment, staffed with Ladakhi recruits. Ladakhis have embraced these initiatives, in large part due the employment opportunities they generate and because the militarization of the landscape greatly increased investment in infrastructure development in the region.

This leads me to the second point I want to examine, namely how the materiality of the landscape of Ladakh has been central to its political configuration (see Latour 2004). The prevailing narrative of human domination over nature, so often depicted as entirely tamable by human hands, is severely challenged in the Himalayas. Here, the control and protection of a territory made up of high peaks and steep slopes, with its desert conditions, freezing temperatures, and high altitudes challenges human endurance, defies technological capabilities, and eludes expert (in particular military) knowledge. Following India's independence, in the aftermath of clashes with Pakistan and China, the state adopted the view that the territory had to be tamed in order to protect the integrity of the nation. As we will see, Ladakhis played a significant role in this endeavour.

Lastly, I want to examine the implications of the material and discursive production of the

border landscape of Ladakh of dimensions of everyday life in Ladakh. In analyzing the nature of the relation between state-society relations in everyday life practices, anthropologists have brought to light the cultural dimension of the state's configuration (Anand 2011; Das and Poole 2004; Fuller and Benei 2000; Gupta 1995, 2012; Jaffe 2013; Rademacher 2011; Witsoe 2011). The central tenet of this scholarship is that the Weberian idea of a rational and cohesive state fails to account for the way the state is encountered by citizens. As Gupta (1995) points out, the legacy of Western scholarship on the modern state, which draws a line of opposition between the state and civil society, may be in dissonance with the empirical experience of the state. Rather than a monolithic entity, the state is a collection of institutions, with which people are interacting. Drawing from these insights, I am asking: what happens when a population and a territory become integral to such institution? More precisely, what are the implications of living in a border area and being artisans of this border?

From Naturalized to Constructed Border

In their study of forest management in Thailand, Vandergeest and Peluso (1995) developed the concept of territorialization in order to discuss the spatial organization of state administration. Moving away from the idea of territorialization as a means of marking national boundaries, typical of the colonial era and its enthusiasm for cartography, Vandergeest and Peluso's perspective continues to inform scholarship focused on state practices aimed at asserting control over specific places and zones within the state. Territoriality, in the sense of the spatial organization of state administration within a territory, has been studied as a means of state-enforced control over natural resources and people (Sivaramakrishnan 1999; Murphy

2014; Li 2007; Vaccaro 2005), a means to control reproductive bodies (Smith 2012; 2013b), and has been linked with ethnic classification and ethno-genesis (Das 2014).

The state's territoriality practices in Ladakh serve to produce the border landscape. In his study of racialized regimes of rules and land conflicts in Zimbabwe, Donald Moore (2005:7) identifies the use of political technologies in the production of territory, including its presumed 'natural' features. In the context of the mountains of Ladakh, Moore's analysis is useful in examining the Indian state's changing perception of the Himalayas. Stretching 1,500 miles across the north of the subcontinent, the Himalayas ("abode of snow" in Sanskrit) has historically been viewed as a natural frontier for the Indian subcontinent. The oldest known source describing the mountain range in this manner is the *Vishnu Purana* (about the first century BCE)[80]. In more recent sources, the same trope also pervades British colonial accounts. British administrators initially considered the region to be a dangerous, unexplored hinterland, but gradually came to see it as a natural border for British India as they expanded their imperial interests on the subcontinent in the mid-nineteenth century (Aggarwal 2004:217)[81]. For instance, in describing the region of Kashmir, the 1931 Census of India opened with the following observation:

> Situated on the north-western extremity of India the State occupies a unique position in the Political Geography of the Indian Empire forming a part of the Frontier of India controlling as it does the boundary line of several hundred miles of Frontier touching Tibet, Chinese Turkestan and Russian Turkestan from which

[80] See Mathur (2013) for a discussion of the history of the naturalization of the Indian Himalayas as a border. See Cunningham (2005[1854]: 41-81) for a first-hand colonial perspective of the geography of Ladakh and details on how the different surrounding mountain chains form natural boundaries with neighboring regions and countries.
[81] The naturalization of the Himalayas as a border failed to take into account the complex realities present on the ground, particularly the regular movement of people among the numerous of mountain passes, despite the ample evidence provided by the long history of mobility across the Himalayas, notably along Silk Road trade routes, which passed through Ladakhi territory.

> countries it is securely isolated and protected by several chains of parallel Himalayan Ranges whose snow-covered peaks render foreign ingress very difficult if not altogether impossible (Census of India 1931:1 cited in van Beek 1996:111-112).

However, India's conflicts with neighboring countries following independence showed that the "naturalness" of the border was a discursive construct rather than an immutable fact. As a military power, India found that reinforcements were required on the ground to secure the frontier. Stationing military troops along the frontier was not sufficient to secure the border, however. Ladakh has vast tracks of empty, unpopulated land, which are difficult to survey due to a lack of infrastructure. Consequently, as the events in Aksai Chin had proved (more on this below), the region was highly vulnerable to foreign invasion. The Indian state therefore saw a need to imprint its physical presence on the area.

When he first visited the region in July 1949, in his address to the local population, Prime Minister Jawaharlal Nehru stressed Ladakh's "backwardness" and emphasized the need to improve local conditions. Following Nehru's visit, the general perception of Ladakh in the rest of India was that it was an economically backward area, but one whose "geography was strategically important for the maintenance of the nation's territorial integrity" (Aggarwal 2004:38). Ladakhi leaders call on the central state administration to remedy the region's poverty, appealing to a moral duty on the part of the state, which, when fulfilled, would in turn ensure the population's patriotic loyalty (Aggarwal 2004:38-39; see also Bertelsen 1996; van Beek 1996). They attributed the poverty of the region to the apathy of the leaders of the state of Jammu and Kashmir State, under which authority Ladakh falls[82]. Their demand long remained unanswered and eventually, it was war and the threat of civil insurgency rather than

[82] See also van Beek (1996) for a thorough study of the Ladakhi struggle for autonomy from Jammu and Kashmir State since the independence of India.

local appeals, that stimulated Delhi and Jammu and Kashmir State to invest in Ladakh (Aggarwal 2004:39-40).

During the first war between Pakistan and India, an 8 km stretch of the Srinagar-Leh route was made motorable in order to bring tanks over the Zojila pass (Demenge 2011:80). In the aftermath of the Sino-Indian war, large numbers of troops were brought in to the region and the road network was expanded significantly. Yet, overall development stalled. Ladakhi leaders made it a point in their address to the central state to say that the army, rather than the state administration, had taken on the central role in assisting the local population. In 1965, Sonam Wangyal, a member of the State Legislative Council from Ladakh, addressed the conditions of poverty in Ladakh in a press conference held in Delhi. Underlining the generalized misery of Ladakhis, he stressed that: "whatever happiness is there in Ladakh can be traced to the army. People get food from military bounty in road building". In subsequent years, Ladakhi political leaders began increasingly to capitalize on the region's strategic position as a border area in formulating their demands for greater development[83]. The third war between India and Pakistan (1971), which brought fighting in the Nubra Valley, had the effect of further asserting the strategic importance of Ladakh as a border area and in stimulating further investment in infrastructure building.

[83] Calling the attention of the Central State to the plight of Ladakhis, Sonam Wangyal warned, moreover, that China and Pakistan could use any form of disorder in Ladakh, a sensitive border area, to their own ends. Not long afterwards, Kushok Bakula Rinpoche, Member of Parliament for Ladakh, issued a press statement in August 1967, in Delhi, in which he addressed the problem of development in the region, warning of possible social unrest fueled by continued neglect for local development and focused on calls for direct administration by the national government. Again emphasizing its geostrategic role for India, Kushok Bakula Rinpoche stressed that Ladakh was a sensitive border area integral to the security of India and underligned that it had been his responsibility to safeguard peace and stability in the region, adding "[i]f the high-ups in Srinagar do not favour such a situation, one can't help". Later that same month, in another press conference, Kushok Bakula Rinpoche once again cited national interest as underpinning Ladakhi demands, which aimed, in his words, to "strengthen the Congress and the country's defence" (Kaul and Kaul 1992:228).

Thus, since India's independence, road building in Ladakh has been strongly linked with military considerations and it is also during the first war with Pakistan that the airport of Leh was built (Dame and Nüsser 2011; Demenge 2011; Fisher *et al.* 1963). This logic was reflected in a study[84] commissioned by the Ministry of Defence three decades after the Sino-Indian conflict had ended, which concluded that the absence of roads in India and the comparative abundance of roads in China had been a crucial factor in the loss of Aksai Chin (Sinha and Athale 1992). This is why, as the BRO memorial plaque mentioned in the opening of this chapter states, men have been dying "in the service of the nation" while taming the mountains of Ladakh and why GREF is "an inextricable part of the life of Ladakh" since the 1960s[85].

The Indian state's territorialization strategy in the region has found a salient expression in sustained efforts to tame the mountains of Ladakh through road building. As a number of anthropologists have shown, large infrastructural projects can be a way for states to express power, assert modernity, ensure visibility, and symbolize their domination over a given territory (see Chalfin 2010; Féaux de la Croix 2011; Larkin 2013:332-333). Under closer examination, therefore, elements of infrastructure provide a lens through which to study state practices. In her study of road building in Peru, Wilson (2004) speaks of a "territorializing regime" in which mobility and roads are components of political economy and power relations, thus identifying road building as a means to control populations by fixing people in

[84] Road building in the region is, generally, a slow paced process. The road connecting Leh to Manali, for example, was completed only in 1987. The construction of the Khardung La road, which grants access to the Nubra Valley and the Siachen Glacier (the "highest battleground in the world", where Pakistani and Indian armies have been fighting since 1984), started in the 1960s, but the road was opened to traffic only in 1988 (Demenge 2011:80).

[85] Exact figures on casualties among BRO workers remain difficult to obtain, but they are sufficient to raise concerns among parliament members. In 2010, the Indian parliament addressed the fatality rate of the BRO workforce, whose estimated 330 deaths every year gives it a higher fatality rate than any army battalion in J&K (Press Information Bureau 2010 cited in Demenge 2011). Even more alarmingly, these numbers do not include casual workers, who account for the majority of fatalities (Demenge 2011:245)

space. The taming of the mountains of Ladakh has been a way to make the region "legible". Elsewhere, states have adopted this strategy in order to extract capital from populations by "fixing" them in a place (see Scott 1998:2). In Ladakh, however, the tactic has served to "fix" the place itself by ordering the landscape. Roads, in other words, as per the Indian state's view, make the landscape easier to read and therefore easier to protect. In the case of Ladakh, the Indian state's primary concern was initially less about the region as an economic subject than about control over a mountainous border area.

Figure 11. *Mention of gratitude from a local NGO of Nubra Valley to the Border Roads Organization circulated on Facebook.*

Cumulatively, the series of conflicts along the northern border came to convince India's national government of Ladakh's importance as a border zone, eventually stimulating the injection of funds into the region, including food subsidies and major infrastructure developments, such as the roads needed to transport the newly available foods, for example. The opening and closing of roads is a point of concern among the population[86]. Once the winter season has taken its toll, every spring, before the opening of roads, local newspapers report acute shortages of essential goods. And it is clear that the BRO's role in the lives of Ladakhis enjoys a high degree of appreciation among the civilian population, as is manifest in social medias (see Figure 11).

The fundamental importance of seasonal conditions for Ladakh's road network contributes to the population's reliance on the state in some of the most basic aspects of the functioning of everyday life. It is no exaggeration to say that roads are among the lifeblood of Ladakh[87]. Hence, during the six warmer months of the year when the roads link Ladakh with the rest of India, cargo trucks incessantly travel through the mountains in order to supply Ladakh's stores and warehouses. They, too, are now an intrinsic feature of the landscape. Consequently, maintaining and extending the functionality of the road network in order to ensure connectivity is a central concern for the state. But road building in Ladakh is not the sole dimension of the state's spatial distribution in the region that has contributed to dependency

[86] See also Dawa 1999 on the question.

[87] Dawa (1999) assessed the extent of the "abject dependence" of Ladakh on other parts of the country by gauging data on imports of essential commodities. While combined imports of rice and wheat, for example, equaled close to 13,000 tons in 1989-90, they nearly doubled by 1997-98 to reach 25,000 tons. Likewise, during the same period, imports of kerosene oil (used for heating and cooking) increased by 160%, imports of diesel fuel (for vehicles and electricity) increased by 120%, while imports of liquefied petroleum gas (used mainly for cooking) increased by 80% between 1992 and 1997. See also Dame and Nüsser (2011).

on the state. As I now turn to, the militarization of Ladakh has also significantly altered the local agrarian economy.

Mountain Warfare and Knowledge Institutionalization

A monument dedicated to the Ladakh Scouts overlooks General Hospital Road in Leh. An ibex, the emblem of the regiment, stands tall and proud on a rock (see Figure 12). On the structure, an inscription on a plaque reads:

Strong as a Yak
Nimble as an Ibex
Gentle as a Monk
Fearless fighter
In Battle
Characterises a typical Nunnu[88]

Figure 12. *A monument dedicated to the Ladakh Scouts in Leh (photo by author)*

[88] The term "Nunnu", meaning "younger brother", is used colloquially in Ladakh to address younger men. Its particular significance here is that it was also how Colonel Chewang Rinchen, a celebrated Ladakhi military man, would call his soldiers.

Although the Ladakh Scouts is one of the numerous contingents of the Indian army in the region, it occupies a prominent place in the landscape. Ladakh is the regiment's recruitment pool, training grounds, and home base. Said to be the "eyes and ears" of the Indian Army, the Ladakh Scouts are one of its most decorated units. It is composed in majority of Ladakhis, who are renowned for their exceptional capacity for combat in high altitude terrain. The monument, like the many others dedicated to the Scouts in Ladakh, reflects one dimension of the state's tactic of territoriality in the region. While road building orders the landscape and eases movement through it, the state military apparatus' co-optation of Ladakhis' ability to navigate the landscape enables it to both master the terrain and make allies in a sensitive border area.

The assault on Ladakh by the Gilgit Scouts constituted a major event in the destiny of the region. Not only did the strategic location of Ladakh revealed itself to the Indian state, but the local knowledge of its population, with its acute mountain sense, proved to be fundamental to the protection of the nation's integrity. This was to be further confirmed during the subsequent wars in the region. During the 1950s, India and China conducted discussions over the control of Aksai Chin, a high desert plateau that both countries claimed as their own. For China, the territory's strategic importance was that it provided link between Xinjiang and Tibet, circumventing the impenetrable Kunlun massif. The Chinese claim refuted the McMahon line, which had established the frontier between India and Tibet at the beginning of the 20th century. Despite these unsettled issues of sovereignty over Tibet, the Chinese built a segment of the Tibet-Xinjiang highway in Aksai-Chin in 1956-1957. This resulted in an escalation of tensions, culminating in the Sino-Indian war of 1962 (Anderson 1997:91; Fewkes 2008:142).

The conflict sealed the previously fluid border between India and Tibet, which was now under Chinese control, thus putting an end to centuries-old[89] trade routes in and out of Ladakh and restricting Ladakhis' mobility[90].

Tensions between India and its foreign neighbors resulted in the increasing militarization of the region. The geopolitical turmoil affecting the region also restricted access to Ladakh for foreigners. Thus, overall, the region became increasingly isolated after India's independence, until the reopening of Ladakh to outside visitors in 1974 brought a steadily increasing flow of domestic and international visitors[91]. Much attention has been paid to the development of the tourist industry as a motor of economic development and social change in the region[92]. As van Beek and Pirie (2008:10) point out, however, processes that may be broadly described as modernizing were already well under way in the region before 1974. The expansion of the Indian state apparatus to the economic and educational spheres, the closing of international borders, as well as the conflicts with Pakistan and China, brought many changes to Ladakhi communities. Although very little has been written on the subject, the militarization of Ladakh

[89] References to trade in Ladakh can be found in sources dating from the 17th century (Rizvi 1994).

[90] From then on, the border with China had become, like the border with Pakistan, a "hard" border (see Gellner 2013:8-9). By contrast, India has maintained relatively porous and open borders with Nepal and Bhutan, allowing people to move across freely, although in recent years the border with Bhutan appears to be moving towards a "hard" border.

[91] In 2013, during its very short tourist season, which starts around June, peaks in mid-July, and ends in September, Ladakh received 137,000 visitors. Reference: http://www.thehindubusinessline.com/industry-and-economy/travel/over-137-lakh-tourists-visited-ladakh-in-2013/article5452097.ece (accessed August 28, 2014).

[92] Tourism, although significant for the local economy, is limited to a season that lasts only 4 months of the year and does not provide a stable source of income. In contrast, serving in the army provides a year-round income and stable remittances for servicemen's families. Moreover, the service economy associated with tourism has made only limited inroads into Ladakhi villages, where it often plays at best a trivial role (see also Tsering 2008). For questions related to tourism in Ladakh, see Goering (1990), Jina (1997), Michaud (1991), Sood (2000) and Geneletti and Dawa (2009). Linguist Helena Norberg-Hodge, who spent many years in the region, has widely denounced the disruption of Ladakhi traditional values by Western influences, as well as other drawbacks of development in Ladakh (see Norberg-Hodge 1992, 1997); Norberg-Hodge has been criticized, however, for depicting a utopian vision of a Ladakhi society holding homogenous interests (van Beek 2000) and articulating a critique that focuses on Western economic ideals, while ignoring local political realities and the impacts of militarization in Ladakh (see Tsering 2008).

has become a dominant force of development in the region and an intrinsic dimension of the local economy[93]. As Ladakhis are mobilized to participate in the state's territorialization project by making use of their skills at navigating the landscape, militarization contributes to reconfigure the household economy.

Numerous discussions in anthropology have revolved around the concept of "local knowledge of the environment" – a set of situated practices and empirically based skills that requires an intimate acquaintance with a locality. Some authors have examined the virtues of local knowledge for biodiversity conservation (Nazarea 1999, 2006), some have discussed its epistemology (Agrawal 1995, 2002; Ellen and Harris 2000; Raffles 2002), whereas others have exposed the incommensurability between local system of knowledge and western science's view about the ecosystem (see Ingold 1996; Nadasdy 2003). While these writings do not inevitably support an opposition between local and scientific knowledge – some have stresses their mutual influence (Agrawal 1995) –, they nevertheless inform us of ontological differences in their respective ways of knowing. Moreover, historians have shown how environmental history is not shaped exclusively by government policies but is also influenced by native perspective about the environment (see Grove 1995; Pratt 1992; Sivaramakrishnan 1999).

The use of local knowledge for military purposes, a question particularly salient in contemporary conflicts, remains largely unexplored. In Ladakh, the co-optation of local knowledge has been crucial to the production of the Indian state in this border area and the establishment of the Ladakh Scouts was a critical development in this project. After Independence, the border was first patrolled by regular Indian police. By 1960, the army was

[93] Notable exceptions include recent work by Aggarwal and Bhan (2009) and Bhan (2014).

increasingly present in the region and took over border duties (Verma 1998). Following the Sino-Indian war, the Ladakh Scouts were formally raised in 1963. The Scouts played a significant role in subsequent wars with Pakistan in 1965, 1971, and 1999; it was after this most recent war that the Ladakh Scouts were converted from battalion to full-fledged regiment.

The topography of Ladakh requires that soldiers be physically at ease while operating in a mountainous terrain at high altitudes (see also Aggarwal 2004:218-219; Bhan 2014). According to former Ladakh Scouts commander Colonel A.P. Singh, Ladakhis are a perfect fit for the army's needs: "Born and brought up in Ladakh, the Nunnus are excellent troops for employment in this region. This is how the Ladakh Scouts came into being" (Colonel A.P. Singh, cited in Verma 1998:138). Ladakhis' skills and loyalty are praised in many Indian military publications. For instance, a recent article published in Asia Defence News stated that:

> The strength of the Nunnus lies in effortlessly operating efficiently in extreme hazardous terrain and inhuman weather conditions in Super High Altitude Areas above 18,000 ft with temperatures dipping as low as - 20 to -35 degrees C. This inborn quality gets demonstrates through excellent results in various Mountain/Winter Warfare activities and scaling of almost all the important peaks of Himalayas (…). The inborn ice craft skills are a big natural gifts to a Nunnu, which get developed since childhood (…). These brave sons of the soil have set standards and benchmarks for others to emulate" (Renu 2013:31)[94]

[94] Similarly, in his discussion of the memoirs of Colonel Rinchen, who at 17 years old mobilized the Nubra Guards in Ladakh and held back invading forces for 28 days during the first war with Pakistan, Virendra Verma, Former Principal of the National Defence Academy writes: "There was one common cause that helped Rinchen and his Nunnus to stand close together and that was the defence of the Homeland (…). Another important point which cannot be ignored is that the Nubrans were the son of the soil. They could climb steep slopes of the mountains with perfect ease and descend or roll down fast without any difficulty. They became known for their mobility, agility and nimbleness was second nature with them. The Nunnus could always be present where they were least expected. They would climb up the snow-covered heights ranging from five to six thousand metres and they would then roll down to come as close as possible to the bunkers of the enemy forces positioned about a hundred metres below to hurl hand grenades. Unmindful of inclement weather, biting cold winds or snow blizzards, Chewang Rinchen and his Nunnus could battle their way forward through waist-high snow. They could spend night in the midst of snow huddled together for warmth and they could start on the mission before

More recently, the role of the Ladakh Scouts and their aptitude for high altitude warfare during the Kargil War (1999) attracted much attention from Indian media[95]. Such depictions essentialize Ladakhis as innately adapted and invulnerable to high altitudes, thus failing to recognize that for Ladakhis, too, work in these conditions is an exhausting physical challenge. These depictions, as well, show that the military state sees the local population as instrumental to taming this terrain.

The civilian population of Ladakh has also been mobilized to protect the interests of the nation. One of the channels through which this is accomplished is the Armed Border Force. Initially established as the Special Service Bureau in the 1960s, the *Sashastra Seema Bal* (SSB) "effectively involved natives for building a second line of defence against adversaries" (Stobdan 2014). The SSB, which security expert P. Stobdan (2014) compares to a "quasi-military force working as an 'ecological warrior' to defend frontier desert, mountains and wasteland under adverse conditions" for decades provided annual "guerrilla training" to civilian men and women in villages throughout Ladakh[96]. Based on information provided by my informants, the training was greatly appreciated by the local population.

In his study of forestry in West Bengal, Sivaramakrishnan (1999) developed the concept of statemaking to look at the statecraft at the vanguard of the regime of production through which governments and civil society are both configured and legitimated; this approach has

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them the very next morning. They never complain of frost-bite. They could live on *sattu* and arak and without feeling the need for hot food and even tea to survive (Verma 1998:51-52)".

[95] See for instance: http://ibnlive.in.com/videos/97673/watch-ladakh-scouts-unsung-heroes-of-kargil.html (retrieved on October 10, 2014)

[96] The Union Home Ministry removed the SSB from Ladakh after the Kargil War.

also been applied to South Asian environmental studies (see Agrawal 2005; Baker 2007; Rademacher 2011). Statemaking, Sivaramakrishnan (1999) explains, both highlights the importance of place and spatialization in the production of the state and becomes closely associated with territorialization in a context of border area. A focus on statemaking in Ladakh reveals how the local population is an ally of the state in its production in the region, in great part due to the materiality of the landscape. For Sivaramakrishnan, knowledge is the cultural domain of statemaking. Its encompasses categories such as "colonial knowledge, local knowledge, and other forms of hybrid knowledge", and which allow practitioners, policymakers and theorists alike "to straddle communities of expertise", which in turn constitutes a crucial dimension in the delimitation of the contours of power (Sivaramakrishnan 1999:5-6). In this respect, the co-optation of Ladakhi's knowledge has enabled the state to assert its presence in Ladakh and therefore to transform the region into a buffer for the subcontinent.

The economic impact of this territorialization process in the life of Ladakhis is significant. Since the Indian army does not make its employment statistics available, tracing a well-delineated portrait of current Ladakhi employment in the military remains a difficult task. The presence of the army is certainly quite tangible in Ladakh. In 2005, the number of army personnel posted in Ladakh was said to amount to one third of the total population of the entire region (Rigzin 2005). Although contingents from all over India are stationed in the region, a significant number of Ladakhi are employed in the army, and in particular the Ladakh Scouts regiment, which counts about 6,000 soldiers (Ladags Melong 2005)[97]. In fact,

[97] This figure does not include those who are not enrolled, but nevertheless work for the army in various support functions, including porters, mechanics, and others.

the vast majority of the people I interviewed had at least one family member either serving in or retired from the armed forces[98] (see also Ladags Melong 2005:29). As Ladags Melong (2005), a local Ladakhi magazine, has pointed out, another consequence of the militarization of Ladakh and one that raises concerns is a rise in school dropout rates as more youth enroll in the armed forces[99].

An attention to statemaking in Ladakh brings into focus the nature of the relations between the state and society, how these are negotiated, and what is the context of the production of both the state and citizens. State policies related to territory have been analyzed from a number of conceptual viewpoints. Recent scholarship in anthropology and cultural geography has demonstrated how the study of the production of the state through the prism of territoriality enables to disaggregate the spatial, institutional and structural variances of governmentality – or the arts and rationality of governing (Foucault 1970). The northern border of India in general and the region of Ladakh in particular show that India's measures of control are not homogenous throughout different parts of its territory[100]. A dimension central to the scholarship on state spatialization practices is that of state enforcement and coercion, as well resistance by local populations (see Ferguson 1990; Guha 1989; Li 2007; Scott 1987; Tsing 2005). Ladakh constitutes an unconventional case in this respect, as the region's inhabitants actively participate in the state's territorialization strategy, either directly as infantrymen or in

[98] Besides enrolment in the army, this also includes the Indo-Tibetan Border Force (ITBF), the Indo-Tibetan Border Police (ITBP) and the Sashastra Seema Bal (SSB), or the Armed Border Force.
[99] Although enrolment in the Indian army requires completion of 10th class (normally completed by age 15 or 16), the Ladakh Scouts nevertheless accept recruits who have not completed 10th class, according to a provision dating back to a time when Ladakhi education rates were low and the army needed local recruits to navigate the difficult terrain (Ladags Melong 2005).
[100] For studies of Indo-Bangladeshi borderlands, see Bal and Chambugong (2014), Cons (2012) Ghosh (2011) McDuie-Ra (2014) and van Schendel (2005, 2002); for the Indo-Buthanese border, see Evans (2013); for Nagaland, see Das (2014), Joshi (2013); for the border with Pakistan, see Gupta (2013) and Bhan (2014).

various military logistical support functions. In many ways, the militarization of the region has implied the institutionalization of the local knowledge of the environment: as living bodies of knowledge who have for generation learn to navigate the landscape, Ladakhis are increasingly physically extracted from the environment to now operated inside the army. As I will demonstrate in the following chapters, this has a number of implications for farming activities and ways of engaging with the environment.

Border Tensions

"Are we at war"? I asked half jokingly by shouting to Pema and Odzer who were still tucked in their *razai*, quilts typical of North India, in the room next to mine. Waking up to the sound of military aircraft was an everyday affair in Leh. After all, the city lies within one of the busiest military air corridor in India. From the start of my stay, I was amazed at how the inhabitants of Leh do not even notice the sound of helicopters and military aircraft. What was aggressive to my ears was simply part of thes regular soundscape. But, this morning, the engine concerto was dragging on. A few days before, it had come to light that Chinese troops had made yet another incursion across the disputed Line of Actual Control between India and China.

My friends interpreted my question as a signal that my room – which was the most frequented space in the house, as it turned out, since I inherited the room with the TV set when I moved downstairs – was now open for company. Odzer a friend and schoolteacher who had made yet another escape from his village at the border of Pakistan where he was posted, and had stayed the night, entered the kitchen and started to prepare tea, adding enough condensed milk to induce diabetes. "Now the tank is really empty", remarked Odzer while taking the last drops of

water from my 50-litre interior storage plastic barrel. The evening before, we had been too tired to fetch water at the community tap after a 7-hour bus ride coming back from the village, a journey that could have taken half that time, but was prolonged due to the customary flat tire, a consequence of the very poor condition of the roads. Pema and I decided to ask our neighbor if we could fill a few jugs from her borewell – something we had never indulged in before, out of environmental sensitivity[101]. We were apparently not the only ones fed up of carrying water by the beginning of spring: altogether, we were 8 neighbors queuing up at the elderly lady's place with our plastic jugs in the cold of the evening. "They should take pictures of us to put alongside those of people in Africa waiting in line for water in these charity adverts", said satirically Gulzar, one of Pema's mother's tenants, who just came back to Ladakh after having spent the winter in Delhi. In the end, we all went home with empty jugs, because the power went off, preventing the pump from drawing water. We thus climbed the hill to the community tap – a bare pipe permanently flowing with water to prevent freezing – only to find out it had been shut for the evening, as sometimes was the case after 6pm. Thus my empty tank in the morning. Thus also yet another day added to a series of many without having a shower. It was just another day in Leh.

Pema entered my room and lit his cigarette, ignoring my reproachful glare. Every day, the rising sun dissipated my nightly (and very limited) private space. "Yesterday when we came back I saw many army trucks, full of Gurkhas with their impassive faces going towards the border", said Pema. "Mercilessly they will kick these Chinese out", added Pema

[101] In Leh today, the use of private bore wells (by hotels, guesthouses, and households) is on the rise, due to shortages, concerns about water quality, and the generally low water pressure that the public network provides. The trend, in turn, has generated concerns about the depletion of groundwater resources (see Gondhalekar *et al.* 2013).

enthusiastically. The discussion then digressed towards the *kurkri*, the Nepali's distinctive curved-edge knife, a tool that, in my friends' opinion, "Gurkha would never go to war without" and which they "would choose over their guns if given the choice". The Gurkhas are indeed famous for their bravery in battle. Pema and Odzer seemed to discuss the situation as if it were an action film, rather than a geopolitical incident between regional powers. Perhaps they were still under the effect of the 1980s Arnold Schwarzenegger movie "Predator", which we watched the night before – Indian television programmers have a seemingly inexhaustible fondness for the film. After a few weeks in the villages, we welcomed the opportunity to indulge in idle entertainment while in Leh. As an added bonus, we were lucky enough to have power for the entire duration of the movie; electricity was always more stable after 10pm, when the town was asleep.

A little over a week earlier, on 15th April 2013, about three dozen of China's People's Liberation Army (PLA) soldiers had pitched tents some 20 kilometers inside the Line of Actual Control, in eastern Ladakh[102]. In a further provocative gesture, they unfurled a large red banner on which were inscribed the words, 'You have crossed the border, please go back'. This, however, was almost business as usual along the border, judging by the announcement a few days later by the Union Ministry of India that there had been more than 600 incidents of transgression along India's border with China in the last three years made by Chinese troops. The vast majority, however, were hidden from the Indian media in order to prevent escalation (see Sitaraman 2013). While such episodes may remain unknown to the general public, for Ladakhis, many of whom are employed in the army or have family members who are, they are

[102] For a detailed analysis of the incident, see Saint-Mézard (2013).

commonplace. The event of Spring 2013, known as the Depsang incident, in reference to the Depsang Plains where it took place, was more unusual. Tensions were raised because India had built new permanent structures in the vicinity of the disputed zone. Later, in May, the PLA withdrew and the Indian construction activity was halted, both sides having made a show of force to assert their presence (Gupta 2013). In Leh, conversation bubbled with news and gossip of the conflict, although it did not elicit major anxiety, notwithstanding the explosive potential of the situation and the fact that the Kargil War (1999) with Pakistan remains fresh in the popular memory.

The electricity suddenly came on, bringing life to the very modest electric devices in my room – the popular TV set, my computer, the internet modem, and a bare light bulb. Odzer switched on the television. The channels were buzzing with news of the PLA's intrusion beyond the Line of Actual Control. The news broadcast aired a perpetual loop of three images, one showing a map with the location of Daulat Beg Oldi, an Indian military camp about 30 kilometers from the incident, another displaying some military bunkers, and a third showing the seemingly eternal landing of an Indian Super Hercules military aircraft against the backdrop of a lunar Ladakhi landscape. TV hosts, commentators, and specialists were overflowing with alarmist commentary on territorial revisionism and Chinese intentions. The news reported that the head of India's army would soon begin a visit to Jammu in order to assess the security situation. I quickly switched on my computer to see what the media websites were saying about the situation. I found an article from the New York Times reporting on the incident. News of the situation had reached international media.

"Stupid them" commented Pema reproachfully. "Stupid media, why show these images, they are going to ruin the tourist season". This was in mid-spring, when it felt like winter was finally almost over. The scramble for revenues from the tourist industry was about to start. Despite a very short season – from May to August, with only the last two months being quite busy – tourism is bringing a significant money influx to Ladakh. Like many others, as I later learned, Pema feared that these images would discourage tourists from coming to Ladakh. This was no time for border skirmishes: many people had to pay off debts accumulated during the winter. The television suddenly shut down. Power went off once more. In Shenam village, in Leh, electricity outages were the norm and having power was rather the exception. "I think if given the choice, many Ladakhis would prefer to be under China than India", continued Pema. I was shocked. "Do you realize what you are saying?" I asked. "Well at least they have good roads and power there", answered Pema.

Anti-patriotism is not common in Ladakh althought it has been used at times by Buddhist Ladakhi political leaders, in order to further demands for development and political autonomy (see Aggarwal 2004:38-45; van Beek 1998:43; see also Bertelsen 1996). Pema's comment falls along the same lines. After all, his remark simply expressed the practical realities of life in a border region: subsistence, work, debt payments, and yearning for functional, as opposed to the deficient infrastructure with which Ladakhis must live. Yet, notwithstanding all its deficiencies, it is this infrastructure that makes the presence of the state tangible at every turn (see also Harvey 2005). Moreover, as I observed during my stay, Ladakhis' views on border tensions focus far more on the potential threat to the regional economy than on the potential of violence. This situation can only be rationalized in light of the pervasiveness of the military in the region, the ways in which the geopolitics of Ladakh transpire on an everyday basis in the lives of Ladakhis and the recognition that the economic fate of the region is now strongly contingent on its location as a border area. In the previous chapter, I touched on questions related to the Buddhist ethical dilemma associated with living in a border area and participating actively in military operations. The Depsang incident, described above, was seen as a threat to the economy, but not as conflicting with moral values. The normalization of the militarized context of everyday life in Ladakh has undoubtedly contributed to dilute the said

ethical dilemma. This does not mean that the dilemma dissipates entirely, but it does, perhaps, become easier to reconcile with everyday necessities at the collective level.

Sentinel Citizens

It was a beautiful, sunny day. On the way to the Ladakh Scouts' base, near Phyang village, we passed in front of a military installation. The insignia at the entrance to the site carried the words "*Kīki So So Lhargyalo*" – "Victory to the mountain gods" – the motto of the Ladakh Scouts. Stein (1972:206) interprets the invocation as a war cry reflecting "the warlike nature of the gods and the idea of passing through a dangerous and strategic place". A nonagenarian in Nimoo once told me that decades ago, during the first war with Pakistan, villagers realized that the Pakistanis had run away only when they heard Ladakhis shouting the *Lhargyal* [*Kīki So So Lhargyalo*]. Traditionally, Ladakhis would shout this phrase when reaching a mountain pass as a rite of respect and deference to the local mountains gods. As Samuel (1993:182) notes, the invocation would sometimes accompany the act of adding a stone onto the *lhato*, the stone cairns that frequently mark the highest points of passes and which serve as the abodes of mountain deities.

We were on our way to attend the celebration of the Golden Jubilee of the Ladakh Scouts. Along with myself and Pema were Tundup and his brother, a monk who had been appointed to a remote village and who came to Leh for the event. Albeit interested in the event, I had accepted the invitation only reluctantly, since the conditions of my research visa forbade my entry into any military sites. But as my friends kept on insisting that this was a special event, "a-celebration-with-free-food-and-games", where everybody was welcome, I gave in. Reaching

a junction with the road that leads deeper into the Sham valley, Tundup swerved to the right on the dirt path leading towards the site of the celebrations. At one point along the long and narrow road, two soldiers stopped us for routine verification. Although they seemed entirely indifferent to my presence in the vehicle, I apprehensively handed my passport to one of the guards, explaining the note on my visa. My gesture elicited no more than an exchange between the soldier and Tundup on the triviality of my concerns. What must have come across as my as over-enthusiastic respect for rules was not met with equal zeal. A moment later my passport was handed back to me and Tundup drove on. We drove through an arid terrain, where the landscape was replete with military barracks and dormitories. Arriving at the site of the celebrations, we were greeted by the Ladakh Scouts' insignia: a standing ibex proudly raising its head[103]. Along the way, we stopped for a group picture under a colorful arch proclaiming the site as the "highest training center in the world" (see Figure 13). In a mixture of religious and military graphic elements, the inscription is bounded by the eight auspicious symbols of Buddhism (*Ashtamangala*): the parasol, representing protection from the elements; the pair of golden fish, representing happiness, freedom, and fertility; the treasure vase, representing inexhaustible treasure and wealth; the lotus flower, representing purity and enlightenment; the right-turning conch shell, representing the thoughts of the Buddha; the

[103] The ibex (Siberian ibex, *Capra sibirica*) is described by some authors as "the livestock of mountain spirits" in the belief system of the Brogpa community of Ladakh (Bhasin 2008:87) and as a "holy animal" (Vohra 1982:91). In the context of Zanskar, Gutschow (2004:64) describes the "golden ibex" as a deity honored by the population during a "ritual day of the dead". According to Kaplanian (1983), the ibex is a symbol of prehistoric and idyllic age of nomadism and during which a blurred boundary was distinguishing the gods from humans. Ibexes feature in petroglyphs found throughout Ladakh. Although the origin of these petroglyphs is difficult to establish, some have been dated to the 10th or 11th century CE (Dorjay 2014 :38-40). The animal is also prominent in many religious ceremonies: ibex figurines are fashioned from dough and ibex horns are placed on the *lha-to*, the shrine for the *lha*, a local deity.

endless knot, representing eternal harmony; the victory banner, representing a victorious battle; and the wheel of dharma, representing knowledge[104].

Figure 13. *Me and Tundup standing under an arch proclaiming the Ladakh Scouts' base as the "highest training center in the world" and depicting the eight auspicious symbols of Buddhism (photo by Stanzin Choldan)*

We finally reached the ceremonial grounds, which consisted of an open court surrounded by colorful tents inside which food was being served. The place teemed with a mix of people: civilians, infantrymen, a few women, children, and many monks. We found out that the previous day high profile army officers took the stage to address new Ladakh Scouts recruits who had been conveyed with their parents and relatives to share a ceremonial cake. On one side of the grounds, children and young men formed a large circle to play a ball game under

[104] See Beer (2003) for an analysis of Tibetan Buddhist symbols.

the direction of an elderly woman. Winners received small gifts. We sat, ate, and chatted for some time. My friends met old friends they had not seen in years. The ambience was quite relaxed. The whole scene was made up of a mixture of elements that each seemed to pertain to universes that would normally have little in common, the religious intermingling with the military, with families celebrating against the backdrop of artillery.

The question of the production of the state through symbols and rituals in borderlands has been studied in the context of Ladakh and elsewhere (Agarwal 2004; Cons 2012; Wilson and Donnan 1999). But what does such ritual tells about the production of citizens? Fifty years ago, after the Sino-Indian war, the Ladakh Scouts were formally raised from an amalgamating the 7th and 14th J&K Militia Battalions. While the Golden Jubilee of the Ladakh Scouts aims to celebrate a regiment that has been central to the production of the state in this border area, it also sanctions the very mode of production of the state. During the first war with Pakistan, Ladakhis had their first encounter with the military state, an encounter that slowly shifted into an amalgamation of two worlds. The Ladakh Scouts is a telling example of this. It uses Buddhist symbolism as well as elements of Ladakhi culture.

Over the years, the imposition of a military character on Ladakh has evolved into what Lutz has termed "militarism at home": a context in which the military becomes entrenched in spheres of everyday life not normally associated with military activity (Lutz 2002; 2007:32)[105]. As a result of this mode of production in the region, the state has also produced sentinel

[105] The army has taken an active role in various development initiatives (grouped under the name Operation Sadbhavna) oriented towards the welfare of Ladakh's population. See Aggarwal and Bhan (2009) and Bhan (2014) for analyses of the interface between militarization and development in Ladakh.

citizens, namely citizens which are playing a crucial role in monitoring the border and protecting the territory. This role is tied to the production of the border landscape and ultimately, ties Ladakhis to military activities.

Everyday Life in a Border Area: A Discussion

The specificities of life in borderlands have been the object of recent scrutiny (see Gellner 2013; Muehlmann 2013; Shneiderman 2013; van Schendel and de Maaker 2014; Wilson and Donnan 1998). As Aggarwal and Bhan (2009:521) suggest, borders provide key sites in which to observe "the power and limitations of the nation-state" as it "asserts its physical and symbolic authority over its citizens" (see also Jones 2009; Mathur 2013). The Golden Jubilee of the Ladakh Scouts, like any punctual military ceremonies that take place in Ladakh enables the symbolic production of the state while simultaneously contributing to assert patriotism and to identify with a state project in a way that also valorizes local identity. This in turn legitimizes the very presence of the army in the region.

But such legitimation find more salient expression in the production of the state in everyday life, as evident in Ladakh in the state's transcendence of society through the army's pervasive involvement in all facets of life. In fact, the degree to which the presence of the military apparatus in Ladakh has been normalized is bewildering at times. It is imprinted throughout the landscape, with ubiquitous military barracks, camps, and military truck convoys constantly travelling the roads. But, more importantly, the army has become the central force for development in this border area: it is present in the construction of roads, it plays a role in

access to the market economy through new employment opportunities, it is the source of the cheap kerosene sold on the black market, and it is indispensable in securing commodities during the harsh months of winter and for the removal of snow from the roads to ensure local transportation. The presence of the army contributes to the local economy on many levels, from lucrative contracts for the construction of military buildings and other infrastructures, to the purchase of vegetables from local producers, particularly in settlements in the vicinity of military bases. In Ladakh, in some of the most fundamental features of the basic operation of life, the face of the state is that of the army. This infiltration of the military within everyday life is legitimized by a discourse that casts Ladakh as a border area whose very existence would be jeopardized without the presence of the army[106].

The experience of the production of the border landscape in Ladakh is an instance of the "micropolitics of state work", or the practical dimensions of the state in the sphere of everyday practices, a determining experience for what the state means to people (Sharma and Gupta 2006:11). Reflecting on the structure of bureaucratic authority, Sharma and Gupta (2006:13) assert that "proceduralism, the banal repetition of everyday actions, and the mundane realities of following precedent, reproduce 'the state' as an institution across time and space". In Ladakh, this reproduction is strongly defined by the context of a border area: in a place where military incursions by foreign troops are common (not to say banal), where the army plays a

[106] This notion was plainly in evidence in recent comments by an Indian Army Colonel Sonam Wangchuk (who played a significant role in the 1999 war with Pakistan) in comments to a local newspaper on the discontent of many Leh inhabitants over the army's encroachment on their land: "Ladakh is a sensitive area situated at two border areas Pakistan at one hand and China on the other. You require army here", explained the colonel (himself of Ladakhi origin). "Your existence is in question now. [The] [a]rmy and tourist[s] are the twin pillars of Ladakh. We are here for your well being and your protection". In the same interview, Colonel Wangchuk also legitimized the involvement of Buddhists, by explaining that "Buddha had to kill many devils for the good of rest of human beings" (Reach Ladakh Correspondent 2014).

fundamental role in the operation of life, through the taming of the mountains, be it the maintenance of the roads or by contribution to access to employment through the militarization of the state, it is the economic fabric of that exudes the presence of the state. As much as states are "produced through everyday practices and encounters and through public cultural representations and performances" (Sharma and Gupta 2006:27), in Ladakh, the production of the state taints everyday life practices.

Thus, a significant part of the population benefits from the state's territoriality practices, both economically and in terms of improved living conditions. In conversation, Ladakhis of all generations frequently emphasized to me their appreciation for the presence of the army and the cordial character of relations between civilians and military[107]. A vast majority of Ladakhis do not see the Indian army as an occupying force in the region and as mentioned, for a long period during the post-British years, the army was in practice the sole motor of development in the region. In fact my informants often emphasize the army's goodwill and contribution to local development, a perspective that is arguably due to the fact that the army preceded the bureaucratic state as the face of development in the region (see also Bhan 2014:176; Stobdan 2014). In producing itself in the region, the Indian state has thus been able, in its own words, to win the hearts[108] of a majority of Ladakhis by boosting employment and accelerating development in the region.

[107] This is not the case everywhere in Ladakh, however. My research was conducted in Leh district, in the Sham valley where interactions between the army and civilians tend to be cordial. However, authors have identified various tensions between civilians and the army in sectors close the border with Pakistan (see Bhan 2014; Swami 2011).

[108] "Winning the hearts of the people" is an official objective of the army's Operation Sadbhavna (Operation Goodwill), which carries out development initiatives in Ladakh.
see http://www.generalarjunray.com/index.php?page=sadbhavna_home retrieved on November 16, 2014).

The case of the production of the border landscape in Ladakh contradicts narratives of uniformity in state spatialization. Moreover, the situation in Ladakh differs from that of most borderland contexts described in the literature, which generally points to sharp distinctions between those working for state institutions and the general population (see Farrelly 2013; Gupta 2013; Joshi 2013). Consideration for the particular topography of the region and its position as a border reveals that the state's distinct *modus operandi* makes it difficult to draw clear distinctions between civil society, the army, and the state[109]. The army has become ingrained in the functioning of everyday life, becoming, in fact, an integral element of infrastructure. Moreover, in co-opting Ladakhis' knowledge of the environment – or mobilizing Ladakh's workforce – the state has become a major employer in the region. Yet, as Ladakhis have become integral to the state's project through their labour, the region has known a steady rural exodus. Combined with a concomitant reliance on imported foods, the region has shifted away from self-sufficiency towards heavy dependency on the state. Overall, one corollary of the state's mountains-taming practices was to make the local economy and, therefore, the local population dependent on both new technologies and income generated from the army. The production of the border landscape has thus also transformed the local population, whose economic condition has become contingent on the presence of the army. As Aggarwal (2004:41) best put it, this has resulted in "a culture of dependency" that persists to this day. As

[109] Analyzing questions of allegiance and alienation in the town of Kargil and the surrounding district of the same name (approximately 200 km north-west from Leh), which borders Pakistan and was the locus of the war that opposed the two countries in 1999, Radhika Gupta (2013) explains that for villagers in the area "it is the army that is the predominant face of the Indian state". She argues that "[u]nlike the civilian administration, governed by local politics, where the boundaries between state and society are blurred, there is a clear-cut distinction between people and the state when it comes to the army" (Gupta 2013:56). It is important to note, however, that civilian-state relations in Leh district, where I carried out my research, differ in many respects from those in Kargil district, where mistrust and instances of violence have strained relations between the army and the largely Muslim population. In the specific context of Leh district, my observations lead me to conclude that relations between the military and the local population are, by and large, harmonious and that, since a significant proportion of the population benefits economically from the presence of the army, the distinction between people and the state is much less clear-cut than what Gupta's observations in Kargil may suggest.

I aim to show in the following chapters, this has also greatly contributed to alter practices through which Ladakhis engage with the environment.

Chapter 4
Cycles of Interdependence
Of Monks, Laity, Nature and Deities

"The land is what gives us life, how can we abandon it?"
– *Tsering Tashi, Tingmosgang village*

"Today, farming is done only for the sake of not being looked down on by other villagers"
– *Phunchok Stobdan, Tingmosgang village*

The view from Tsering Angchuk's small shop, where Pema and I were having chai was superb. As if watching a play from the balcony, we had choice seats from which to view the scene as farmers were plowing the terraced fields down below. Higher up, watching over them and us, were the magnificent snow covered summits bounding the valley. It was May and work in the field was in full swing in Ang, the upper part of Tingmosgang village. As the village's fields are located at an altitude of about 3,600 meters, where temperatures are low, they yield only one harvest each year. Trapped in the inexorable cycle of the seasons, Ladakhis have to maximize the benefits of their arid land during a brief few months of warm weather before winter sets in again. During the warmest months of the year, there was not a day to spare. As the old Ladakhi saying goes, "summer is the slave of winter".

I could not help but feel that something was peculiar about the scene: while in some fields dzos pulled implements of the kind that have turned this northern soil for generations, in others tractors rumbled as they pulled metal plows. The juxtaposition made the former look like an anachronism. These circumstances can be a source of unease for farmers who continue to rely on animal power. The plowman's exhausting work seems futile beside the tractor's

mechanized efficiency. As if reading my mind, Tsering Angchuk confided a different discomfort with the scene: "isn't it a shame, using tractors instead of dzos", he asked. His remark encompassed so much of the turmoil that exudes from the villages of Ladakh today. Significantly, replacing dzos by tractors means the rejection of the constellation of religious and community arrangements embedded in Ladakhi agrarian activities. The trend away from a cooperative economy and towards capitalism has altered the traditional cadence of farming. As people who own tractors[110] rent out their plowing services from one village to another, it is their availability that dictates the timing of agricultural activities, rather than the traditional, astrologically-based agrarian calendar. It is the lack of workforce in the villages that compels people to rent tractors. Tsering Angchuk's situation exemplifies this: with a measure of visible guilt, the retired serviceman confided that soon, he too would have no choice but to rent a tractor, as his household lacked working hands, despite his seven sons and one daughter: she had married into another household, two of his sons were serving in the army, two others were studying in different Indian cities, one was a monk, and another was a taxi driver in Leh. This left Tsering Angchuk and one of his sons with all the work. He had, in fact, managed to finish plowing his fields the previous day, but only because he could afford, due to his pension fund, to hire Nepali workers. His plight is shared by a great many farmers in Ladakh today.

In this chapter, I explore the tensions that infuse agrarian practices in Ladakh today. In order to better understand these tensions, I first explore the rationale underlying both traditional and newly emerging farming practices. I first discuss how the Tibetan Buddhist cosmolgy is based on an integration of domains that Western rationality tends to dissociate. I then outline how in

[110] The people who are able to buy and rent tractors are generally men who have acquired the financial security of a pension after having served for the state, either in the military or the bureaucratic apparatus.

Ladakh, agrarian practices have traditionally been marked by rituals that underline the interdependence between the laity, nature, and deities. But, for a farming season to be successful, an interdependence must also be at work within the lay community. As I indicate, community interdependence is increasingly compromised in Ladakh today. I will also explore the changes that have unsettled Ladakhis' traditional conceptualization of their relationship with the physical environment on the example of indecision surrounding the performance of a weather-making ritual in the village of Tingmosgang, when the community faced inclement weather.

Overcoming the Divide

The nature-culture dichotomy has been a central theme in anthropology during the past decades. Rooted in the Enlightenment, the narrative of the ontological split, an axiom of Western science, has established itself as the sole authoritative depiction of the world. Since the scientific revolution, Western approaches have sought to demystify and objectify nature, making it reducible to data; simultaneously, they have divested nature of its organicity (see Shaping 1996). The dominance of the archetypal rationalization of nature has contributed to the tendency to reduce any alternative epistemology to folk beliefs and exoticism. The scientific quest for "domain-specific universals in the recognition of 'nature's basic plan'" has, however, frequently impeded the thoughtful consideration of elements and phenomena that, although incompatible with Western notions of nature, are crucial to local conceptions of the environment (Descola and Palsson 2004[1996]:4)

Since the inception of their discipline, anthropologists, by studying and exposing alternative views on nature, have debunked this dichotomy. The issue at sake for many anthropologists is the realization that Western views on nature become problematic when contrasted with observations in the field. As Descola and Palsson (2004[1996]:7) state bluntly, the nature-culture dichotomy is "utterly meaningless" in some societies. Hence, most anthropologists agree that nature is socially constructed, as well as historically and culturally contingent. This perspective, therefore, leads to the assertion that the dichotomist conception of the universe as an ontological paradigm should not be imposed on other, different cultures. Furthermore, discussions emerging from the philosophy of science and laboratory studies have contributed to nuance the purity of the category of nature by showing how, even within the operation of modern science, that category is to an extent defined by human culture (see Hacking 1983, 1999; Knorr-Cetina 1981, Latour and Wolfgar 1986). As Latour (1993) argues, incapable of reconciling the dualist paradigm, modern science has produced hybrid artifacts that are the product of the intermingling of material effects and social components. Besides, Latour (2004) points out, the very process of ontological purification annihilates a potential democracy for every entity, be it human or otherwise.

In recent years, anthropologists have challenged the anthropocentrism of the social sciences, going a step further in the attempt to think beyond the nature-culture dichotomy. This scholarship, although it is by no means homogenous, has acquired the label of "ontological turn". Generally speaking, this approach displaces humans from center stage and recognizes an ontological pluralism (a multiplicity of ontological spaces) that stands in contrast to the proposition of multiple worldviews of any single reality that would be central to anthropology

(see Descola 2013[2005]; Kohn 2013; Viveiros De Castro 1998). According to this view, alterity is not reducible to symbolism or beliefs, but is rather the product of living in alternative realities or different ontologies and the acknowledgements of a plurality of worlds and not just of outlook on the world. Others, working in the tradition of science and technology studies, , exemplifies in the work of Bruno Latour and Michel Callon, have destabilized the supremacy of humans as social agents by emphasizing the capacity of non-humans to act as part of systems or networks.

Key to this anthropological paradigm shift is its inclusion of non-humans, a category that encompasses not only living creatures, such as plants and animals, but also various forms of entities such as artifacts and images. This has been accompanied by an adjustment in the analytical lens to concentrate on interactions between humans and non-humans, rather than focusing on conventions and institutions that are at the center of society. Humanity, therefore, is no longer perceived as the exclusive ontological given, independent of the realms of nature and animals, and the sole actor of consequence. Other, non-human, actors must also be taken into account.

In his endeavor to move away from the nature-culture binary, Descola (2013 [2005]; 2009) has developed a four-fold system of equal ontologies to postulate a relative universality: animism, naturalism, toteism, and analogism. In other words, each culture distinguishes between its human members and those things in their environment that have neither the power of speech nor a human form. In Western understanding, non-human entities pertain to the realm of what we define as nature, but there are many other ways of knowing these non-human entities.

While Descola does not reject the relativism of science, which he sees as appropriate in the context of Western culture, he argues that each culture has its own truth and, thus, its own perceptions of the world – hence his idea of "relative universalism" that "reconciles the demands of scientific inquiry and a respect for the diversity of states of the world" (Descola 2013[2005]:305). In Descola's scheme, each ontology corresponds to a specific form of knowledge and specific ways in which humans and non-humans are defined and identified in a given society. Each ontology is associated with a learning process and corresponds to a process of ordering the world, or what Descola calls "worlding".

In doing so, Descola reinterprets the concept of animism, which he opposes to naturalism, a legacy of the scientific revolution, and the sole ontology to dissociate nature and culture. Naturalism postulates that the material continuity of all entities is coupled with a discontinuity of interiorities, so that what "distinguishes humans from non-humans is the mind, the soul, subjectivity, a moral conscience, language, and so forth" (Descola 2009:153). Yet, for a number of peoples in various areas of the world, elements of the environment have their own subjectivity and soul. In such communities, humans maintain person-to-person relationships with these entities, which they consider to possess social characteristics, such as kinship rules, and which they engage in ritual activities. Such relationships are part of the ontology of animism, in which humans and non-humans possess an equivalent interiority: they differ in their "outer clothing", but "the reference shared by most beings in the world is humanity as a general condition, not Homo sapiens as a species" (Descola 2009:151).

According to Tibetan Buddhism, there is a reciprocity between humanity and nature that is mediated by a pantheon of deities and permeates the sphere of everyday life. Buddhism views elements of the physical environment not as innately alive, but as animated by spirits. Descola's animist model and the Buddhist outlook on the environment share a commonality in that both see the human and natural worlds as intertwined, contrasting with naturalist, Euro-American rationality, which views them as separate. Key to Buddhist cosmology is the dimension of ritual practices that attend to this integration of different worlds. Hence, Buddhism recognizes a realm of sentience and non-sentience, which is intricately linked to spheres of human activity, including both the contributions (moral and economic) of the laity and the ritual practices of religious experts that mediate between the worldly and the otherworldly. For the laity, these rituals both reiterate and reify the principle of interdependence.

However rich in details and highly informative, Descola's neatly delineated model of different ontologies fails to account for their interaction with different outlook on the world as well as their pragmatic dimensions. No society lives in a vacuum and anthropologists have long insisted on the impact of outside influences on even the most isolated societies. Can a given ontology, in a given society, provide the sole legitimate account to interpret the world? One way to depart from Descola's static model of "culture as isolated templates" while keeping an appreciation for a treatement of non-human based on other assumptions than the ones of Western science is to think about how people engage with the world. Here it is productive to create a dialogue with the phenomenological approach to the perception of the environment in the tradition of Tim Ingold (2000). Ingold's model, which is based on the view that

knowledge emerges from practical enagement with the world, rejects multiple-world view and therefore stands in sharp contrast with Descola's one. Yet, bringing into conversation both approaches is fruitful to think of different forms of practical engagement with the world based on different worldviews, how they collide and what are the implications for their respective continuity. Here, I treat ritual as a form of practical engagement with the world, a question I will return to in Chapter 6. As we will see further below, ritual practices oriented towards the otherworldly are less central a preoccupation for a growing number of villagers today, which I attribute to the influence of rationalism – seen as the increasing interaction with a place defined by rationalism – or in Descola's model, naturalism. In order to understand the scope of this change in Ladakhi communities, I will first briefly examine the importance of rituals that acknowledge the interdependence between humans, nature, and deities, as well as how this relates to the Tibetan Buddhist interpretation of the world.

Cycles of Interdependence

In Ladakh, the farming season runs roughly from April to September. In this relatively short window of time, depending on the altitude, villagers harvest one or two crops[111], consisting mostly of a few varieties of vegetables (potatoes feature prominently) and cereals that grow well in arid soil, namely barley, wheat, and buckwheat. Despite the availability of imported and subsidized foods and Ladakh's economic restructuring, both of which have contributed to reduce the importance of farming, winter in Ladakh without access to farm produce, as I found out during my stay in Leh, does not make for a nourishing diet. Besides, as mentioned, fresh food in winter is costly. Therefore, each yearly cycle, sees villagers trying to maximize the

[111] Fields situated below 3000 meters of altitude can produce two crops annually.

yield of the land before frost and low temperatures prevent all agricultural activity.

Traditionally, the yearly cycle of agricultural life was marked heavily by the interdependence, often mediated by religious experts, between the laity, deities, and nature. Ladakhis strive to incorporate Buddha's ethical precepts in their farming activities. In traditional Ladakhi cosmology, agricultural requires not only the physical work of lay people, but also the prayers and ritual of the monastic community. Land does not exist solely for humans to use in order to ensure their subsistence: it is the domain of the *sa-bdag*, the lord of the soil, who has the final word on its use. Along with the *lu*[112], the *sa-bdag* are said to be quite capricious, punishing harshly those who fail to pay their due in the form of regular offerings. Dollfus (1996:31-32) reports that many Ladakhi villages trace their origin stories to natural catastrophes or various diseases provoked by spirits of the soil angered by human neglect. Buddhist deities also influence the favorable meteorological conditions on which the success of a farming season relies and, therefore, must be adequately propitiated. Human survival, in other words, is contingent on the benevolence of various Buddhist deities.

In the past, the onset of the farming season in early spring was marked by the community ritual of "the opening of the mouth of the earth" (*sa kha phye*), which inaugurated the agricultural cycle and authorized the villagers to work the land and perform other farm-related activities (Dollfus 1996). The date of the ritual would be set by the *onpo*, the local astrologer, on

[112] In Tibetan Buddhist cosmology, the *lu* are spirits of the underworld. They like humid, swampy places, which are rich sources of water holes. When they appear to humans, *lu* will often have the traits of aquatic animals – fish, frogs, tadpoles, worms, snakes, salamanders, and by morphological proximity, lizards. The *lu* is often associated with the Indian Naga, namely a semi-god with a human head and the body of a snake (Wangchok, 2009:275). The *lu* are to be quite capricious: while if they are kept happy, water and wealth will be plenty, if they are polluted or injured, they will respond fiercely by withholding water or sending disease, in particular skin diseases (Samuel 1993:162). For discussions on the *lu* in Ladakh, see Butcher (2013b), Dollfus (2003) Mills (2003) and Wangchok (2009).

the basis of various calculations. The *onpo* would refer to an almanac to indicate where in the field the plowshare would first open the ground and in which direction the first furrow should be traced. In addition, the astrologers consulted various astrological texts to determine who should be the main actors in the ritual, choosing from among the plowman, the man guiding the dzos, the sower, and the dzos themselves. The inauguration ceremony of the first plowing, was accompanied by prayers and the burning of juniper twigs. Protector deities are solicited to guard the earth and seeds, while forgiveness is asked of the earth spirits, since their ground will be plowed. The outcome of the farming season was believed to depend on the performance of this ritual (Bastien 1983; Dollfus 2008).

Figure 14. *Monks performing a ritual for the lu, a chthonic deity (photo by author)*

Such was the rhythm of life in Ladakh for generations: a succession of tasks that engaged people with the environment, intertwined throughout community arrangements, and permeated with religious beliefs. Dictated by the immutable cycle of the seasons, within which

changes in weather and temperature patterns have a bearing on subsistence activities, this rhythm has long constituted the fundamental organizing imperative of life. Thus Ladakhis arranged their social and economic worlds so as to maximize the benefits they could draw from the warmest months of the year in order to survive the winter. The prosperity of the community was thus dependent on the periodic acknowledgement of the realm of the otherworldly.

At the basis of these rituals and activities is a worldview that integrates society, culture, religion, and nature. Moreover, according to the classical Buddhist outlook, the world is divided between sentient beings (that is beings who have the ability to experience and to suffer, which includes all living beings) and the non-sentient environment, or the "receptacle-world". This interpretation of the world, is enacted in ritual practices performed by specialists, such as monks, which engage the realms of the worldly and the otherworldly. At the core of this understanding of the world is the Buddhist postulate that interdependence is at the very basis of existence. In Buddhist cosmology, nothing exists on its own. Sentient beings and their environment are enmeshed and either prosper or flounder together. Moral values play an important role in this system: when they are respected the environment prospers, but when there is moral decline the environment is less fruitful. As Kapstein (2013:7) explains:

> [W]ithout the cooperation of the local spirits, the community cannot hope to achieve prosperity; without the prosperity of the community, the material basis for religious achievement is lost; and without achievement in religious practice and learning, the cooperation of the local spirit cannot be won.

In Ladakh, the notion of interdependence has traditionally underpinned religious life and found expression in the cycle of seasonal activities and rituals that reinforce and emphasize the

interdependence between nature, deities, and the laity. Yet, the changes of recent decades have however contributed to minimize the significance of traditional ritual practices. Since the turn of the 21st century, the ritual of the opening of the mouth of the earth, as well as many other Ladakhi rituals, has been increasingly relegated to folklore. A number of such rituals continue to be performed during the Ladakh cultural festival, held in Leh each September, but their enactment is divorced from their original context (Dollfus 2008:136). Many villagers no longer observe the plowing date set by the *onpo*, although many others vehemently criticize such attitudes as a failure of community solidarity and a result of "people being in a hurry for everything". As one elderly Ladakhi woman told me, "today, people are farming just for the sake of farming". The social values and religious arrangements once attached to farming have largely eroded and, with them, so has the centrality of the community. I will now take a closer look at how this has become manifest in practice, in the community of Tingmosgang.

Dissonance in Laity's Interdependence

We stayed late at Tsering Angchuk's shop before heading back to the Chonpa house, where we stayed and were hosted by Lhadol, a strong, spirited mother of four. In the evening dark, at 10 pm, which feels like the middle of the night in a village, we walked down the two kilometers or so that separate Tsering Angchuk's shop and Lhadol's home. There were no habitations along our path. The distance, although downhill, felt like half a marathon at this time of day. Walking by moonlight along the narrow stretch that divides the village on a footpath left in bad shape by the 2010 floods was no easy task. I was glad the stream we had to cross had very little water in it, which dramatically increased my chances of survival had I fallen in. This was a relatively plausible scenario, given all the *chang* we were obliged to consume earlier in the

evening as other visitors had joined our gathering at Tsering Angchuk's shop, and the mood became rather festive, as it usually becomes at the onset of the farming season – besides, Ladakhis can be very persuasive when it comes to drink. I don't think Pema would have been of much help either, if the unsteadiness of his gait was any indication. The sounds of the night were rather unsettling. In my imagination, all the cracking noises emanating from the dark surroundings were taking the shape of snow leopards ready to pounce – and judging by how I had frozen in place when we came face to face with a wolf a few months earlier, in Nye, I would have been fairly easy prey for the big cats. I could now clearly see why I was repeatedly instructed not to travel around at nighttime: the vulnerability of humans in this place was all the more concrete at night.

As I awoke the next morning, the taste of *chang* still in my mouth, the tea Ladhol's daughter, Padma, brought into the room was a welcome balm. Ritually, I added a spoonful of instant coffee to the cup. I had bought a tiny pot of Nescafe in Leh and carried it with me on every village expedition like a prized possession. The result, a brownish mixture of excess sugar, tea, and instant coffee – my "cofftea" – was perhaps objectionable on gastronomic grounds, but provided me with the defibrillator effect I very badly needed on cold Ladakh mornings – and even in May mornings were cold. How astounding it can be when things one would not give a second thought to in one context are worth their weight in gold in another.

Pema, as immune to sounds as he was while asleep was still in deep slumber at the other end of the room. The sun was barely coming up from behind the mountains but through the window I could already see farmers working in the fields afar. The Chonpa house was located in a very

narrow section of the valley, so that the sun appeared only in the late morning, before vanishing in the early afternoon. This was certainly impacting the crops. Suddenly, I noticed a large grasshopper walking on Pema's arm. This was a sure sign of spring: insects, which had vanished with the cold, were now reappearing. As the grasshopper suddenly climbed on his hand, Pema woke up with a jolt. He looked at the creature for a few seconds, then brought it over to the window, which he opened, before gently letting the insect out. Here, squashing an insect is not an instinctive reaction.

* * *

In the kitchen downstairs, Padma was roasting chapattis. The sweet smell of grilling wheat had invaded the room. Padma's younger brother and sister were getting ready for school. Seven-year-old Skalzang was almost done fixing her hair into the school-mandated two large braids while her brother, Norbu, who was five years old, was clumsily trying to set the collar of his shirt. In their school uniform, pants, shirt, crested sweater, and tie they looked quite formal. Carrying their enormous school bags, which were probably half their size, the children then went to catch the bus by the roadside. They came home with enough homework each day to keep them occupied until supper, which in Ladakh is rarely before 8 pm. The amount of time Ladakhi children spend in their schoolbooks is indeed impressive. Yet I could not help but wonder whether, studying their books rather than playing outside, they were not missing out on a valuable aspect of childhood.

Padma was busy packing lunch and making tea for the various family members who had come to help Ladhol prepare the fields, including her mother. Although I stayed for many weeks at Chonpa house, I never met Lhadol's husband. Working in the army, he spent only a few weeks at home each year. On the wall of the kitchen, a framed picture of him in uniform watched over the family. Lhadol was not only raising all their children, but also handling all the farm work, including rearing the sheep, goats, cows and dzo. Her life conditions are far from unique in Ladakh, however. Hers is the burden of so many women married to men with military careers[113]. She was overloaded with work. In fact, the economic restructuring of Ladakh has had a significant impacts on farming families. In 1971, 65% of the Ladakhi workforce were listed as cultivators[114]. By 2011, that proportion had decreased dramatically to 28% (GoJ&K 2012), which translates into a critical lack of workforce in the villages (see also Dawa 1999)[115].

Luckily for Lhadol, her eldest daughter, Padma, could now share some of the workload. Eighteen-year-old Padma had come back to the village about a year previous to my stay, after having spent several years at a residential school in Punjab, sponsored by Mahabodi, a South

[113] For questions related to the increasing contribution of women to agriculture in Ladakh, see Hay (1999). In a recent interview with a local newspaper, Indian Army Colonel Sonam Wangchuk commented on young Ladakhis' interest for work in the army and the implications of military work on family units: "Army duty demands 100% from you, family takes a back seat [...] It's also good to have a better half who is considerate, who could comprehend the kind the job you are doing" (Reach Ladakh 2014).

[114] The census of India defines the category of "cultivator" as a "person […] engaged in cultivation of land owned or held from Government or held from private persons or institutions for payment in money, kind or share. Cultivation includes effective supervision or direction in cultivation. A person who has given out her/his land to another person or persons or institution(s) for cultivation for money, kind or share of crop and who does not even supervise or direct cultivation of land, is not treated as cultivator. Similarly, a person working on another person's land for wages in cash or kind or a combination of both (agricultural labourer) is not treated as cultivator." http://censusindia.gov.in/Metadata/Metada.htm#2k (accessed on August 27, 2014)

[115] Army data on its employment figures are not accessible, but it is nonetheless possible to draw some broad conclusions. Data provided by the census of India indicate that "all those workers other than cultivators or agricultural labourers or household industry workers, are [classified as] 'Other Workers'", whose proportion in the district of Leh grew from 14% in 1971 to 67% in 2011. We can infer that the category is in large part made up of military personnel, especially since "Other Workers" in Ladakh are 82% male. These data show a major shift in employment patterns over the past decades stemming from Ladakh's position as a geopolitically sensitive border area.

Asian Buddhist organization, where she had completed her higher education. She had been far from the universe of Ladakhi villages for a long time and her disconnection from rural life was unmistakable. Like so many young Ladakhis, Padma's education outside the region had uprooted her from the culture and customs of the community. Spending years outside their villages, returning only for occasional visits, many young Ladakhis today find themselves struggling with feelings of alienation. But Padma knew there was a way out. Every day, well before the first glow of the rising sun as well as late at night, she studied in preparation for her entrance exams in pharmacology. If successful, she could hope to land a job that would bring her closer to the city. The intensity of her efforts gave a telling indication of the strength of her desire to escape village life.

* * *

In the field in front of Lhadol's house, everybody was busy preparing the soil for sowing. The group was composed mostly of relatives (seven women and four men), and two hired Nepali laborers – to compensate for those not present to do some of the work, like Lhadol's husband. The previous day, Lhadol had worked on her husband's brother's land. Today, the family group had moved to her fields. Farming in Ladakh is intrinsically a family affair that offers opportunities to celebrate, to gossip, to tease, and to reunite. It is as much about celebrating family as it is about getting work done in the field. Although hard work was clearly being accomplished, the scene had a festive tone. The family group also included two nuns. Unlike monks, whose status is much higher in Ladakh, nuns fulfill constant demands from their families for help with various mundane tasks, leaving them precious little time for religious

activities. Ladakhi women who choose to devote their life to religious study have few options and many work as domestic servants or marginal laborers for their relatives[116]. Padma carried out her part of the farming duties in the kitchen. Her task was to prepare food and make successive round trips to the field in order to bring chai and butter tea for the group. She had been given another tasks than working the land, for, as Ladakhi elders say nowadays, younger generations are "not strong enough" to do this type of work, as they spend so many years behind school desks.

Figure 15. *Plowing and sowing in Tingmosgang (photo by author)*

[116] For a detailed study of the status of Buddhist nuns in Ladakh, see Gutschow 2004.

Figure 16. *Plowing and sowing in Tingmosgang (photo by author)*

Lhadol's family had not yet resorted to the use of machinery. Two dzos plowed the field. The men took turns pulling them across the field with a rein attached to a thick blade of grass hooked through the animals' nostrils. At the rear, a plowman strained to maneuver the harrow while expertly directing the dzos with precise commands. Once a section of the field was completed, the women scraped the soil with wooden rakes, before men proceeded to sow the seeds (see Figures 14 and 15). Now the field would need water, sun, and mild temperatures to prosper. The scene could have been set in any village in Sham valley at this time of the year. From one field to the other, in what seemed like the performance of a musical fugue in which the same melody overlaps itself continuously, as people in one field began to sing, they were

followed by others in another field, and so on. It was a beautifully sonorous expression of cooperative farm work and a striking counterpoint to the sputtering of tractor engines. For a moment, the contemporary tensions between generations and classes that mark farming – for some farming is central to subsistence, for others, it is almost a burden – and how these affect community interactions had seemingly dissipated.

* * *

Later that day, in the evening, we all gathered at Chonpa *khangba*[117], the home of Lhadol's sister-in-law, Dolma. Dolma's husband, too, worked outside the village this time of year, but fortunately her two sons were able to free themselves from their jobs in order to contribute to the preparations for the farming season. *Chang*[118] flowed at a steady pace. Spoonfuls of ground and roasted barley grain were added to our glasses, an additive which is said to intensify the effect of the alcohol. As we were offered glasses of *chang,* we each enacted the *dzangs* (customary refusal), as required. In Ladakh, accepting an offer too quickly is considered rude. It is polite to first refuse an offer, once or twice, before accepting. As I was still feeling the aftereffect of the *chang* imbibed the previous night, I was not overly keen to indulge in drink. However, to refuse *chang* altogether would have come across as a lack of solidarity with the group. The onset of the

[117] The *khangba* is sometimes called *khang chen*, literally "big house", and the *khang chung*, literally, "small house". The *khangba*, is traditionally the main taxpaying house; it generally goes to the first son. The *khangu* are subsidiary houses, where one's offspring live after the partition of the family land. Generally, the *khangu* keeps the same name as the main house, but, when talking about a given house, people specify whether they are referring to the *khangba* or the *khangu*. A house is intricately linked to the genealogy of a family in Ladakh and has a function akin to a surname. It is also a way to identify the origin of one's interlocutor. In every interview I conducted, at some point, the informant would inevitably ask Pema the question, "Where do you belong?", meaning, "to which house do you belong"? In Leh itself, after a few months of seeing me around, people began asking to which house I belonged.

[118] Ripley (1995) has conducted a study of the social and ritual significance of food in Ladakh, including details on the consumption of *chang*.

farming season is, after all, a festive moment. Hence, I accepted the offer, but paced my consumption carefully. This was key, since accepting an offer of *chang* means that one's glass is always filled to the brim: each sip taken is soon replaced by a quick refill.

While everyone chatted and laughed, I became captivated by the beauty of Dolma's kitchen. Ladakhi kitchens have something akin to museums. The kitchen is where Ladakhi families demonstrate wealth, by conspicuously displaying brass and copper cooking pots, bowls, plates, cups, and ladles, arranged on carved wooden shelves. These items are passed on from one generation to the next: as a general rule, as she leaves her natal household when she marries, a woman will receive the vessel her mother acquired at marriage; a man acquires the rest of the vessels by staying in the main family house with his wife. More than a place to prepare food and to celebrate, a Ladakhi kitchen is a repository of genealogical biographies. But for how long, I wondered, with the demographic changes and the growing decentralization of the ancestral home as the center of subsistence activities.

I was brought back to the present by voices at the door. Dolma's sons were going back to Leh, where one is a taxi driver and the other an engineer employed by the government. Their time in the village, spent attending to agrarian work, meant days of lost business for one and requests to supervisors for leave of absence for the other. This is what farming means for many families in Ladakh today – trying to maintain a balance between work obligations and family responsibilities. More broadly, it is also about balancing individual aspirations and moral duties. I could see a sudden melancholy come over Dolma's face as she watched her sons go. Plowing was over and, with it, the reminders of a life as it had been in the old days, when

subsistence united family members, rather than keeping them at a distance. She would now once again be alone in this big house.

The difficulties of agrarian life experienced by the Chonpa family are shared by many agrarian families in Ladakh today, affecting older and younger generations alike. Farming the land remains a moral obligation, but adjusting to off-farm employment is the reality of the vast majority of Ladakhi households today (see also Dame and Nüsser 2011:187). The predicament is compounded by the increasing partitioning of land among siblings, which means that farmers possess increasingly smaller pieces of land that cannot provide sustainable income or livelihood. Fueling the trend away from farming is the availability of very low cost staple foods from the Public Distribution System (PDS), India's largest poverty reduction scheme. In Leh district, more than 98% of households are holders of PDS ration cards. The cards enable people to buy wheat and rice at subsidized prices, limited to a quota, at local ration stores, which today operate in most villages (Dame and Nüsser 2011:188-190; see also Dollfus and Labbal 2009a:100). Overall, increasing numbers of Ladakhis view farming as burdensome or less attractive than urban life. Yet, for those who live mainly from the land and do not occupy any other permanent job, farming requires working hands. For many families replacing what had normally been unpaid cooperative work among family members by paid laborers has become a pressing issue. And not only in terms of the costs of hiring laborers: Ladakhi farmers sometimes feel humiliation at revealing that they have been let down by their family. This is a complex question, as those who are working outside are also constrained by work obligations and often feel guilty for not providing support to their families.

The Obstinate Protector

In the three months of spring, wrathful wrinkles by the ice
Can't help but thaw for they are chased away by the warmth
In the three months of autumn, the frenzy to harvest the lentils and grain
Can't be helped, for the harvest is chased by frost.
Proverb from the Epic of Gesar[119]

The following morning, when I took up the toothbrush I had left by the window outside, near the spot of our morning ritual of washing-hands-and-face-and-brushing-teeth, I noticed that the bristles had frozen. The temperature had dropped below zero during the night, freezing all traces of moisture, including the puddles that lined the path passing in front of the house. I wondered if the family's crops were fine. Ominous clouds covered the sky. The day did not seem promising. Here and there, timid rays of sun barely pierced the heavy blanket. Walking through the village and talking with farmers that day confirmed my gloomy impressions. The meteorological conditions were relatively adverse early in this farming season. Yet, as I found out, concern with the cold temperature and cloud cover centered not so much on crops potentially freezing; barley resists frost surprisingly well, I was told. Rather, these conditions signalled a delay of the seasonal melting of the glacier and, without a marked improvement in the weather, the seeds would lack water, thus jeopardizing the whole farming season[120].

[119] All references to the *Epic of Gesar* are extracted from « The Epic of Gesar of Ling: Gesar's Magical Birth, Early Years, and Coronation as King » (2015), R. Kornman, S. Khandro, and L. Chönam, transl. Boston: Shambhala., p. 327. An important source for Tibetan culture is the Epic Of Gesar, believed to date to the 11th century. The epic has been written down in many local variations, including Ladakhi (see Francke 2000[1905]). Interspersed with a wealth of cosmological and climatic parables and similes, the epic repeatedly makes use of various glacier and snow-mountain imagery.

[120] It is important to distinguish between regular seasonal melt and the issue of glacier retreat. Every year, a glacier will normally melt in spring and summer, but the mass a glacier loses during these seasons is normally regenerated in the colder months; glacier retreat implies the insufficient regeneration of melted glacier ice.

Tingmosgang village is laid out along a distinctive "Y" shape that follows the branches of the local stream. On the west side, leading towards Tia village, the stream connects to a massive glacier. To the east, it is fed by two glaciers of considerably smaller size, Kangri Kningpa (old glacier) and Kangri Soma (new glacier). Water stress has always been an issue on the eastern side. Perhaps for this reason, Tingmosgang villagers have traditionally performed a number of practices that aim to monitor and nurture these glaciers. Although their efficacy can certainly be contested on scientific grounds, such practices testify to a close connection between the population and local glaciers. Here, glaciers are much more than a lifeless mass in the landscape. In the recent past, the preservation of glaciers was a community responsibility. As discussed in the introduction of this dissertation, according to villagers of Tingmosgang, long ago, Kangri Soma was created by villagers, who threw charcoal on the melting ice every spring, insulating the ice and slowing down its seasonal melt – thus the origin of the name "new glacier"[121]. As I will discuss in more detail in Chapter 6, this practice may have been similar to one still performed today in Baltistan.

As I was going to learn, however, human responses to the difficulties posed by the natural environment in Tingmosgang have long involved interactions with otherworldly powers. As we walked through the village that day, we saw an old man, touching 80 years old, sitting on the hillside next to the road. Eating dried apricots, he watched over his sheep as they grazed in a small patch of marshland near the stream. We sat with him for some time, talking about the recent cold weather. The water problems facing the villagers were apparently not unusual, for, being located in the shade of the mountains, the glaciers of Tingmosgang were prone to melt

[121] I will return to this practice in Chapter 6.

slowly in spring. But this explanation is insufficient in the local worldview. The old man, like many other villagers, believes that the *gzhi bdag* (the master of the place)[122] of Tingmosgang is a stubborn spirit, who refuses to let villagers carry out their farming activities unless they pay the necessary tribute in order to outweigh their sins. Traditionally, local inhabitants have appeased the *gzhi bdag* by performing the ritual of *skyin jug*[123].

In Tibetan cosmology, concerns about nature are primarily oriented towards "landscape gods", who are believed to inhabit various places in the village and its vicinity, in particular the surrounding mountains and water sources (see Huber and Pederson 1997; Salick and Byg 2012:451). Together with the *yul lha*[124] (the gods of the mountains), the *sa-bdag*, the *lu* and a variety of other deities, the territorial deities *gzhi bdag* feature in both Bon and Buddhist traditions[125] (see Figure 17). Lay and expert people in Sham described the *gzhi bdag* to me as the protector of the glaciers and the mountains.

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[122] *Gzhi bdag* has been translated in various ways. Pascale Dollfus (1996:6), a Tibetologist working in Ladakh, translates *gzhi bdag* in French as "maître du lieu", literally "master of the place"; in an English-language publication (2006:3), however, Dollfus also translates *gzhi bdag* as "owner of the land", a formulation I often heard myself in Ladakh. Nebesky-Wojkowitz defines the *gzhi bdag* as the "country god" (1993[1956]:475), who is supposed to rule a particular place or province (1993[1956]:228). Nebesky-Wojkowitz (1993[1956]:226) recorded a list of *gzhi bdag*, a number of which he associated with rivers, lakes, and ridges, but none with glaciers; he neverthless stated that "most seem to be personifications of mountains". According to Karmay (1996), in Amdo, Eastern Tibet, *gzhi bdag* is the term employed for deities known as *yul lha* is other regions (Karmay 1996:67). This is not the case in Tingmosgang, where people recognize both a distinct *gzhi bdag* and a distinct *yul lha*.

[123] As a weather-making ritual, *skyin jug* is perhaps specific to Ladakh, but it echoes diverse Buddhist weather-making ceremonies. Nebesky-Wojkowitz (1993[1956], chapter 24) provides a detailed study on weathermakers in Tibet. See also Klein and Sangpo (2007) for hail protection performances and Mills et al. (1998) for a discussion of the economy of these rituals.

[124] In Tibetan territory, the class of gods called *yul lha* (or territorial god) usually dominates a particular area and is often identified with the mountain from which emerge the main sources of water flowing into the region. The *yul lha* serve as regulators and guardians of the life of a given space (Kapstein 2006:208). According to Dollfus (1997) and Riaboff (1996), the *yul lha* of Ladakh are not necessarily associated with a mountain and can simply be the god of a given territory. Tibetan Buddhist local deities and spirits have been the object of detailed examinations: for *yul lha*, see also Buffetrille (1998), Pommaret (2004); for *gnas ri* see Blondeau (1996), Buffetrille (1998) and Ramble (1997); for sacred lakes, see Karmay (1996). As well, René de Nebesky-Wojkowitz (1993[1956]) offers a thorough discussion of Tibetan Buddhist deities.

[125] In doctrinal terms, these gods do not belong to the repertoire of orthodox Buddhism. Tibetan religious life, although dominated by the traditions of Buddhism and Bon (which some scholars describe as the pre-Buddhist

Figure 17. *A lha-to, a shrine dedicated to the yul lha (photo by author)*

In the local cosmology, the local deities of the mountains, lakes and other geographical features, or the 'gods of this world' are guardians of the connection between moral values and the environment (Samuel 1993:166). Local gods form part of a complex of ideas about divination, spirit-mediums, and good and bad fortune, thus constituting an important part of the symbolic language through which people of Tibetan Buddhist confession cope with the pragmatic matters of their world. As Samuel (1993:190) notes, the deities provide a critical set of symbolic associations through which the Tibetan landscape is perceived, endowing it with a

religious practices of people of Tibetan ethnic origin), embraces a broad range of beliefs and practices, including those performed by specialist practitioners that appear to be orthodox Buddhism. These elements of religious life – which sinologist and tibetologist Rolf Alfred Stein (1972) termed "nameless religion" – involve the participation of religious elites and the general population alike. The practices of the "nameless religion" are centered on the "cults of local divinities and spirits, the harmony or conflict between human and the invisible forces with which they must interact" (Kapstein 2006:205-206). An integral part of both Buddhism and Bon, these traditions are a constitutive part of lay people's religious practices.

sacred character. While the local gods are generally benevolent, they are also easily offended. Keeping on good terms with deities and rectifying the relationship when needed is the domain of ritual specialists. Placating deities requires the observance of regular propitiatory rituals, which occupy a significant place in local practices. And for good reason: an unbalanced relationship with the deities can bring about diseases or natural catastrophes of various kinds (Kapstein 2006:209-211; Samuel 1993:179-192; Snellgrove 1967:12-13). Thus, the concerns that stimulate daily religious life in Tibetan Buddhist communities are those inherent to preserving, rather than transcending, the order of the world: ensuring that harvest is abundant, cattle remains healthy, and diseases are kept at bay. As Kapstein notes (2013:3), such considerations pertain to the "facts on the ground" of Tibetan Buddhist religious life. Attending to the deities that dwell throughout the landscape in order to achieve prosperity and avoid misfortune belongs to what Samuel (1993) terms the "pragmatic orientation" of the ritual cosmos, within which religious power is applied to the contingencies of everyday life. Although certain ceremonies require ritual specialists, this sphere of religious activity is particularly salient for lay people who interact continuously with the various gods and spirits of the world.

Local beliefs associated with glaciers testify to Buddhist Ladakhis' close relationship with forces that are beyond them and indicate a persisting need for a socio-religious account of both the predictable and unpredictable aspects of the seasons. Rather than relying solely on a rational account of the late arrival of water from the glacier in spring – namely the fact that it is positioned in a shaded area – the villagers of Tingmosgang believe that they are responsible for the situation because of their sins and that this must be addressed by propitiating the *gzhi bdag*.

This explanation is accepted simultaneously to the understanding that because the glacier is located in the shade of a mountain, unless the temperature in spring is warm, unless the sun is not blocked by a sky cover, water will be slow to come. The idea that water problems are the result of a *gzhi bdag*'s stubbornness is a way of rationalizing that assumes an interconnection between the realm of the worldly and the otherworldly, as well as an interrelation between the sacred, environmental, and human realms. In this worldview, the *gzhi bdag* does not hand out favors: the spirit is obstinate and requires that villagers acknowledge that interdependence through rituals.

In the past, according to Dorgey Gyaltson *skyin jug* was systematically performed when the weather conditions were unfavorable in spring. Today, younger generations have lost interest in this type of activity and it has become difficult to mobilize people to fund and participate in the ritual. In recent years, however, as the water supply had become increasingly problematic, some villagers had brought forth the idea of organizing *skyin jug* performance. They were in fact seriously considering this remedy during my stay, since, according to the *lotho*, the Tibetan almanacs used to foretell weather, no rainfall was to come any time soon[126]. The villagers were distraught by the prediction, since even a sparse rain would at least moisturize the soil while waiting for a more generous income of water in the torrent.

* * *

[126] Based on astrological calculations, the *lotho* is greatly valued in Ladakh. During the farming season, the small book provides a crucial reference for farmers. In the course of my research stay, I informally validated its contents, which most of the time proved to be quite reliable. Systematically comparing rainfall predictions from the *lotho* with the ones made by the Government meteorological departments, Angchok and Dubey (2006) also found strong correlation between the two sets of data.

In the days that followed, the weather remained rather inclement. The feeling of spring we had enjoyed in the previous weeks already seemed far away, as if we were already settling into winter. This did not compel farmers to stop their work in the fields, but in conversation they expressed concern about the weather conditions. After a few days of anxiously waiting to see if warmer weather would come, the villagers of Tingmosgang were still unsure if *skyin jug* was going to be performed. Indeed, gathering information on the ritual proved difficult. Not only could no one tell me if it was going to be performed at all, detailed knowledge of the ritual seemed scarce. The *skyin jug* had not been performed for a few years and it seemed that villagers' memories of the practice had rapidly become hazy. We concluded that the best way to know if *skyin jug* was going to be performed was to meet the appointed caretaker of the monastery, who would normally be involved in the ritual[127].

Perched on top of a rocky hill that splits the village in two, the setting of Tingmosgang's monastery is simply stunning (see Figure 18). In the 15th century, Takpabom, the young and ambitious brother of king Takbomlde (1430-1470), built a formidable fort next to the monastery and declared himself the king of Sham, in an act that partitioned Ladakh into two kingdoms. For the next century, Ladakh had one capital in Shey and another in Tingmosgang. Data on the history of Ladakh are scarce, but it seems that the reunification of Ladakh occurred around 1530, during an invasion led by Mirza Haider, a general serving the Khan of Kashgar, as part of his broader plan to conquer Lhasa (Kaul and Kaul 1992:44-47). Extant written sources fail to delineate a full picture of the history of Ladakh, but the numerous

[127] In Ladakh, large monasteries appoint individual monks to reside in the village temple in order to become village priest and caretaker of a monastery (*komnyer*). This practice has not been reported elsewhere in the Tibetan region. Samuel (1993:113) suggests that the "relatively "clericalized" position of the Ladakhi monks and lamas may reflect their 150 years of history within a Hindu state and within British and independent India".

crumbling palaces and fortresses that punctuate its landscape, however, are physical vestiges of a history long marked by territorial conquest and battles. As we trekked along the road leading to the monastery, I was panting as if I had only recently arrived in high altitude. Building fortresses on the highest point of villages was perhaps not only a good way of seeing enemies coming from afar, I mused, but also a clever way to curtail the cadence of an invading army.

Figure 18. *Monastery of Tingmosgang (photo by author)*

Upon arrival, the monk in charge of the monastery turned out to be quite young (in his late 30s). He received us in his room, a dark chamber that reflected the prescribed frugal lifestyle of his profession: besides scriptures, biscuits, dried apricots, and a small stove, the room had only very modest furniture. The monk informed us that he had never heard of the *skyin jug* ritual in Tingmosgang and no villagers had come to him in the past few days regarding the subject.

Monks in Ladakh are posted on a rotational basis and such practices did not exist where he was previously appointed; besids, he was not well versed, he admitted, in rituals of this kind. Older monks would know better as the training of monks of his generation is more oriented towards textual Buddhism and, thus, knowledge of prayers rather than the performance of rituals. Besides, he explained, there is nowadays a steady decline of ritual practices associated with the local territorial deities, something which he viewed as the result of modern influences:

> One of the major reasons [for the decline in these ritual practices] is that these spirits do exist, but not in the solid form of flesh and blood like human beings, but rather in rare subtle form which we cannot see with our naked eyes. They are formless and invisible to our naked eyes, hence the common people hardly believe that they exist and they generally doubt their real existence in our environment. Because of this and the pursuit of material gains and development, the modern people distrust and disbelieve the age-old religious tradition and practices and they neglect many aspects of religion. This leads to imbalance in our environment and society and thus causes indignation to all these *lha*, *lu* and *gzhi bdag*.

That evening, as we chatted with Lhadol, our host mother, she suggested that meeting with *meme* (grandfather) Skidjor would perhaps help us to learn more about *skyin jug*, as he had been the appointed monk of Tingmosgang monastery for several years. She had heard that he was now living in the monastery of Likir. We decided to set out for Likir village on the following day.

"Father White Glacier"

(My) first salute
is the salute to the *gzi bdag* high up,
the divine patron of this place.
If the woollen cloth, in spite of this washing, does not become white,
then, I, this girl,
shall take the religious vows.[128]

[128] Extract from a folk song from Gyantse, Tibet (Tucci 1966:42).

Located in the upper part of the village, the monastery of Likir, which belongs to the Gelugpa sect of Tibetan Buddhism, appeared dominating and massive from the vantage point of the village, which is spread out inside a long and wide valley. In his historical account of Ladakh, Moravian missionary August H. Francke (1999 [1907]:65) reports that Likir monastery is, according to a popular saying, "the most ancient monastery" of the region. Adjacent to it stood a very recent, gigantic statue of Maitreya, the future Buddha of this world in Buddhist eschatology, 23 meters in height. It makes for a sharp contrast with the centuries-old building it overlooks. Its construction, completed in the late 1990s, reflects the commodification of religion of the recent decades in Ladakh: past practices of devotion are seemingly being replaced by the edification of conspicuous constructions. Flamboyant with vivid colors and visible from a fair distance, the statue grates on the sensibilities of some, as do the many oversized prayer wheels built with increasing frequency in the villages. Many Ladakhi elders told me that people today are eager to show they have money to build religious monuments, but that "they pray with empty hearts".

In one of the monastery's two assembly halls, whose walls were adorned with colorful paintings of religious deities, we met a young monk, in his late teens. His blue-tinted sunglasses and his basketball shoes clashed with the prescribed asceticism of his monastic life. Like so many monks of his age, he was likely under the strain of having to make the difficult choice between continuing the religious vocation or turning towards secular life. We asked him if we could see *meme* Skidjor. He guided us towards an old section of the monastery that houses elderly monks' rooms. With their antique demeanor, the monks' living quarters were quite in harmony with their occupants: both were well advanced in age. The staircase was in disrepair and the walls

were crumbling. The young monk left us in the inner courtyard while he went to knock on *meme* Skidjor's door. He was apprehensive, for *meme* Skidjor was apparently quite a persona. On the terrace, a monk sat on the floor painting a wooden door, while another sanded a wooden table. Although falling apart, the elderly monk's quarters seemed to be the liveliest section of the monastery. Our guide was an increasingly rare example of youth in a vocation that is undergoing a steady decline. In great part due to the emergence of new employment opportunities that attract increasing numbers of young Ladakhis, elderly monks today largely outnumber their younger colleagues. After a few minutes, the young monk came back whispering that *meme* Skidjor was coming.

Upon arriving on the terrace, *meme* Skidjor complained half-heartedly that we had better had a good reason to disturb him during his nap. The old man was visibly struggling with the toll of advanced age. His threadbare maroon robe and the five o'clock shadow covering his face and shaved head gave a slight impression of apathy. "I know nothing and I forgot everything, what do you want me to tell you?" he asked. By that time, I was already familiar with this type of reception, a typical approach of the monks of his generation I had met during my fieldwork. There is a generalized assumption that, as a foreigner, I sought information on orthodox Buddhism and scriptural knowledge[129]. As a Geshe[130] monk of the same age once told me, when their generation received religious training, before the independence of India and the onset of rapid economic development in Ladakh, philosophical studies of Buddhism were

[129] Ortner (1989:7-8) reports a similar situation during the course of her research on the establishment of the first celibate Buddhist monasteries among the Sherpa of Nepal. Ortner's informants often directed her to the lama instead of "small" people (lay people), who were not comfortable acting as informants on religious matters. In the same way, the older generation of monks in Ladakh often do not feel comfortable acting as informants on orthodox religious matters, which, from an anthropologist's point of view, is an unfortunate obstacle to collecting data on that generation's perhaps unique perspective.

[130] Geshe is the highest degree in the Gelug school of Buddhism.

marginal. Monks had to study in Tibet (a situation that changed after the 1959 Tibetan Uprising) where many only pursue religious training oriented towards ritual practices, rather than scripture. Hence, many elderly monks in Ladakh today can, in the words of the Geshe, "perform the rituals, beat the drums and hit the cymbals", yet "they don't know what is the meaning of the texts". Today, by contrast, the study of philosophical approaches to Buddhism is much more easily accessible to aspiring monks, while ancient rituals are now seen as deviating from Buddhist orthodoxy and no longer form a central concern of religious curricula. This explains why *meme* Skidjor does not know the texts – which is what he indirectly expressed by saying that he "knows nothing" – and why the caretaker we met at the monastery of Tingmosgang is not well versed in ritual practices that do not fall into orthodox Buddhism.

With this backdrop in mind, I quickly informed *meme* Skidjor of the reasons of my visit and my interest in *skyin jug*. To my relief, he suddenly became enthusiastic, as if I had revived long forgotten memories. In the past, as he told me, *skyin jug* was systematically performed in spring in order to ensure that there would be sufficient water for the crops, considering the stubbornness of the *gzhi bdag*. Performing the *skyin jug*, meant the onset of a complex ritual machinery that required the participation of monks, musicians[131], children and lay people, who would all climb the steep mountain that borders the East side of Tingmosgang village. As the trek is quite difficult, only men would reach the top, explained *meme* Skidjor. The complex ritual unfolded on the summit, which allows a full view of the main glacier that feeds the East

[131] The Mons are the professional musicians of Ladakh; a number of scholars believe that the Mons are descendants of the original Dard population. While there is no caste system in Buddhism, the Mons are regarded as being of lower status (Rizvi 1996:131). For a discussion on the social status of Mons in Ladakh, see Rather (1997).

side of the village and is the abode of the local *gzhi bdag*[132]. At some point, entranced worshippers would entreat the *gzhi bdag* by repeatedly shouting the following incantation:

Father white glacier, ju hey[133]!
Mother, *mapam* lake, ju hey!
Gzhi bdag of the village, sacred owner of the land, ju hey!

While Ladakhis see glaciers as male and lakes as female, *mapam* refers to Lake Manasarovar in Tibet, which is at the foot of Mount Kailash, the holiest peak for Tibetan Buddhists. The lyrics recited are a form of respectful salutation to the father, the mother and the *gzhi-bdag*. It is worth noting that the *skyin jug* ritual appealing to the *gzhi bag* of Tingmosgang mimics the ritual of the same name performed during Ladakhi wedding ceremonies[134]. Expressing a bride's lament at leaving her family, *skyin jug* is a form of poetry normally performed almost exclusively by women[135] (Aggarwal 2004:133). *Skyin jug* is performed during the elaborate leave-taking ceremony that marks a bride's departure from her home, as she leaves with the groom's party[136]. As her departure becomes imminent, the bride wails hysterically, accompanied by her friends. After a series of highly codified rituals that span a few hours and include a meal, the bride performs the last part of the ceremony, during which she recites prescribed verses and cries loudly, while proceeding from the household altar room to the great room. The verses of *skyin jug* are partly improvised by each performer. Overall, however, the chants reflect

[132] Kaplanian (2002) identifies two types of mountain worship in the Tibetan world. The first, more in line with Buddhist orthodoxy, are pilgrimages to mountains and their circumambulation; the second type, which includes the *skyin jug* ritual, is associated with territorial deities.
[133] « Ju hey » is a salutation.
[134] *Skyin jug* translates literally as "exchange-enter", from the word *skyin*, which means "exchange", and *jug-pa*, which means "to enter"; the ritual is referred to as *bag-ngus* (tears of bride) in Leh region. I have not found instances of *skyin jug* as a ritual performed for the *gzhi bdag* elsewhere than in Tingmosgang.
[135] See the work of Kirin Narayan (1986; 1997) in Kangra in the foothill of the Indian Himalayas for *suhag* songs, which have a similarity to *skyin jug*.
[136] For a study of wedding ceremonies in Ladakh, see Gutschow (2004:148-156); for Amdo in Tibet, see Skal Bzang Nor Bu and Stuart (1996); for Nepal, see Childs (2004:100-104). All these authors report a phase of overt weeping during the leave-taking ceremony. See also Aggarwal (2004:133-147) for an analysis of *skyin jug* in Ladakh.

Ladakh's predominantly patrilocal postmarital residence patterns. As a general rule, a bride performing the ritual sings about her family members and the pain of leaving her natal home. Her relatives and friends accompany her in her sobs, making for a chorus of wails that can fill a house with the sounds of lament. Ladakhis told me that the daughter cries out of sadness over leaving her close ones and because she wants her family to remember her, while her kin cry to implore the family-in-law to take good care of her[137].

The *skyin jug* performed on the mountaintop in Tingmosgang echoes these tropes. The community takes on the role of the bride leaving her natal home and salutes respectfully her father and mother. In affirming their filiation with a glacier and a lake, by extension, the villagers are affirming their filiation with the broader natural world. Because they are sources of fresh water, life's most fundamental resource, the glacier and lake are to the villagers as a father and mother who take care of their children. Through the ritual, villagers acknowledge that they live under the patronage of the local *gzhi bdag*, without whom they would be at a loss.

Tibetologist Giuseppe Tucci (1966:69) explains that the integration of liturgical elements is common in Tibetan marriage songs, an aspect discussed in more detail in Chapter 6. This form of supplication to local deities has also been noted in Ladakhi marriage songs (Dinnerstein 2013b:75). Additionally, in his work among Tibetans in Sama, in Nepal, Childs (2004:101) describes how mountain imagery is evoked throughout wedding ceremonies. For instance, as a bride departs from her natal home, the attending groomsmen sing the following words:

[137] While women generally perform *skyin jug*, I have been told that it is sometimes performed by men whe the marry as *mag-pa*.

Ama layho!
The snow peak up there is the eldest,
The earthen mountain below is younger
Earthen mountain, please protect the snow mountain!

Ama layho!
The earthen mountain up there is older,
The rocky cliff below it is younger
Earthen mountain, please protect the rocky cliff!

Ama layho!
The earthen mountain up there is older,
The rocky grassy hillock below it is younger.
Earthen mountain, please protect the grassy hillock!

In these verses, vertical layers of mountain topography, Childs (2004:102) explains, are used "as an allegory to highlight cultural ideals about social relations with the family". Each layer of the mountain structure (snow peak, earthen mountain, rocky cliff and grassy hillock) symbolizes one of four generations within an extended family. In these verses, the snow peak – the highest and most venerated part of the mountain – represents the grandparents' generation. The second-oldest generation, the middle-aged children of the grandparents, are the nucleus of the multigenerational family and are represented in the song by the earthen mountain, that is, the solid core of the mountain. The allegory is multi-layered: they have the bodily strength to sustain the economy of the household, they have knowledge of farming and herding, they have sagacity and have acquire political knowledge throughout the years. For all these reasons, they are called on in order to provide protection to the other layers of the mountains: to provide support to aging parents (snow covered peaks), guidance to their children, who are coming of age (the rocky cliffs), and care for their grandchildren, who are making their entrance to this world (grassy hillock). Both the verses reported by Childs and the

ones from *skyin jug* associate elements of the mountains with family relations, which constitutes a central dimension of the organization of life in the Himalayas.

While discussing *skyin jug*, *meme* Skidjor extolled the virtues of the ritual, as had many farmers I talked with in Tingmosgang, insisting that water would flow from the mountains within a few days and sometimes within just a few hours of the performance. Listening in on his story, another monk, who sat on the terrace glanced skeptically at *meme* Skidjor. Obviously vexed by his fellow monk's disbelief, *meme* Skidjor loudly challenged anyone who doubted his words to ask "the nun of Ruth house[138]", as "she had seen it with her eyes", and exclaimed with great zeal: "I am not exaggerating, I really did it back then, *konjok*"! I did it myself, I swear, I truly brought water along with me from the glacier!" Old age had not dulled *meme* Skidjor's verve and he was energetically indignant when his expertise was questioned.

Notwithstanding his ardent insistence on the ritual's effectiveness, *meme* Skidjor confided that the *skyin jug* ceremony had not taken place since a few years. "And me, I am old and cannot climb the mountain anymore", he added. It appears that there is today a steady decline in appeals to otherwordly powers in attempts to resolve water issues in Tingmosgang. Although villagers still experience difficulties due to the late arrival of water in spring, it was clear that paying tribute to the *gzhi bdag* in this manner had lost much of its importance for a number of villagers. While the older generation of villagers still occasionally propose the remedy, it has little resonance among young people.

[138] It was not clear to me who the nun of Ruth house was, but *meme* Skidjor obviously felt that her name added credence to his words.

When I visited him, *meme* Skidjor was 84 years old. He is one of the last monks in the region to have performed *skyin jug* to propitiate the *gzhi bdag*. It seems that the ritual will eventually belong only to oral history. He was once the central figure in a practice which villagers believed saved them from unfavorable harvests and ensured their survival. *Meme* Skidjor not only preserved the link of interdependence between nature, laity, and deities, but, more than that, his role was akin to that of a saviour. Now retired, living in a room at the monastery of Likir, *meme* Skidjor reminisced of earlier days when he played a crucial role in the community.

Conclusion: Broken Links

In this chapter, I have demonstrated how the *skyin jug* ritual is inscribed in the Buddhist outlook on the environment. Yet, hesitation over the performance of the ritual indicates that Ladakhis' conceptualization of their relationship with the physical environment has become unsettled. Ultimately, the precedence of Tibetan Buddhist as a doctrine through which people engage with and interpret the world is in part decentralized. As I have suggested in this chapter, this contributes to the abandonment of ritual practices that attend to the interdependence between the laity, nature, and the deities. Tibetan Buddhist ritual practices continue to play a role in the life of Ladakhis, but more elaborate rituals like *skyin jug* or *sa kha phye*, which require community mobilization are practiced less and less.

During her research among the Sherpas of Nepal, Sherry Ortner (1998) noted a decline in shamanist practices coupled with the rise of monastic Buddhism and the ascension of affluent Buddhist lamas in the 1960s and 1970s. Could the rationalization of Buddhist practices (see

Lopez 1998) account for the reduced importance attributed to local cults? In Ladakh, Butcher (2013:111-112) explains, monastic authorities advise the laity not to seek the protection of local gods, as they are not *srungma* (guardians), but powerful *lha* who deliver prophecies through oracles and assist Rinpoche, who are still highly influent, in temporal matters. Nevertheless, Butcher (2013b:111) argues, "the overall performance of government through rational-legal and bureaucratic systems has eroded ritually-prescribed social behaviors". The infiltration of the bureaucratic apparatus in many dimensions of everyday life in Ladakh has certainly contributed to mitigate the importance of religious practices oriented towards territorial deities in Ladakh.

Besides, traditional local cult, Huber and Pederson (1997:584) explain, is oriented towards mundane matters such as health and fertility, but the textual Tibetan Buddhist approach emphasizes salvation, karma, existence, and its end in nirvana. It appears that textual Buddhism is superseding local cults in Ladakh today. In the past, monks like *meme* Skidjor, expert religious ritual practitioners, were key in bridging the sacred and the mundane in a way that was accessible to lay people. Today greater access to education and increased literacy have given religious texts a more widespread audience. As a result, ancient ritual practices developed locally are increasingly seen as heretical. Thus, when I would ask elders about ritual religious practices, they would laugh, seemingly embarrassed, often adding "we use to do that!", as if themselves incredulous that they had once held such beliefs.

Last, the tensions that infuse farming activities at the familial and community level today in Ladakh also account for the erosion of rituals in Ladakh. Like all Buddhist weather-making

ceremonies, the *skyin jug* ritual is financed locally by people who want to protect their fields (see also Mills et al. 1998). As the case of Tingmosgang demonstrates, the performance of the ritual also relies on community mobilization. When communal bonds are broken and farming shifts from a cooperative to an individual approach, solidarity proves elusive. Moreover, with the decreasing interest in farming and related activities, there is inevitably a loss of interest for sponsoring this type of ritual. A ruined crop still spells hardship, but food subsidies and incomes from a variety of sources mean that hunger is no longer a present threat.

As practical ways of engaging with the world and with the environment, based on a given worldview and ideas about humans, nature and how they are coproduced, rituals such as *skyn jug* are part of an environmental phenomenology and contribute to the preservation of a certain environment ethics. As rituals that are attending to this worldview are ceasing to exist, so does this environment ethics erodes, a discussion to which I return in Chapter 6.

Chapter 5
Searching for *aba* Stanzin
On The Predicament of Herders

During the day
No cattle to milk and feed
During the night
No wealth to keep the mind attached
Tibetan Proverb

I was a shepherd as long as my body allowed – *Sonam Angdus, Saspol*

It was midsummer. We were on a bus travelling through the Sham Valley. A group of old men were chatting and teasing one another. I was trying my best to understand the jokes flowing back and forth, but some words eluded me. Pema would sporadically burst into laughter. "What are they saying, what are they saying?", I asked eagerly. "Nonsense stuff, just ribbing each other", Pema answered. The speakers blared Bollywood-inspired Ladakhi music. The sound of the *dramyin*, the traditional Ladakhi lute and high-pitched voices are, in fact, forever imprinted on my memories of bus rides in the high mountains of Ladakh. The bus was overladen with exhausted people, gas cylinders, bags full of goods, and assorted pieces of luggage. Beaten by years of travel on some of the world's most hazardous roads, the old machine had seen better days. As it barely climbed yet another hill, the bus made sounds that grew less reassuring by the minute and the driver needed to execute an "S" pattern to facilitate the ascent. Then, as we sped downhill after each peak, the harsh sound of the engine's exhaust tore through the silence of the mountains. Each curve made me feel as if I had been catapulted onto a roller coaster. So far, we had stopped three times on the way, both the driver and the conductor disappearing under the bus for a round of repairs. This is transit in Ladakh.

Mobility in the mountains of Ladakh relies on a system of privately owned buses, whose dedicated years of service on steep mountain roads have taken a toll on their mechanical reliability, resulting in perpetual delays for those who depend on them for transportation. This time, there was apparently a problem with both the brakes and the transmission. Unsettlingly, next to the road, cliffs plunged hundreds of meters downwards. Inured by the Ladakhi sense of fatalism, I had by then learned to be as unconcerned by such 'minor details' as everyone around me.

Sculpted by water and the imperceptibly slow journey of glaciers over long millenia, the typically Ladakhi landscape we travelled through made for stunning scenery. Outside the villages tucked away in the fertile valleys, Ladakh is almost exclusively a harsh, yet beautiful, desert. Suddenly, as the driver carried too much speed into a curve, I was thrown against the window. After recovering my bearings, I saw that the road has opened onto a scene worthy of a National Geographic documentary: a wild predator was feasting on the remains of a freshly killed cow by the roadside. As a man behind me screamed "*Kishang*!", all the passengers rushed to the windows. A hybrid of wild dogs (*khi*) and wolves (*shanku*), the predatory canine's population appears to have multiplied in recent decades, becoming a regular threat to cattle. Behind us, a worried passenger inquired of fellow villagers a few seats away if they had sent a watchman to guard their cows in the pasture that morning. Yes, answered one of them in a reassuring tone, they had. At that moment, however, a sarcastic voice from the back of the bus shouted: "Yes, they must have sent a watchman over here too, and look what happened to their cows". Silence followed, everyone's thoughts turning intently to the safety of their cattle.

The *kishang* in many ways epitomizes contested claims on the landscape of Ladakh: thought to have proliferated in large part due to easy access to food waste from military installations and road builders' camps and due to wildlife protection laws, its predation on cattle in the mountains is a blight for cattle herders[139], who struggle to keep their cattle through thick and thin. As the present chapter will show, the threat *kishang* pose to farm animals is only one among a number of recently emerging factors that constitute the predicament of herders. Taking on Ogden's (2011:28) view that "our relations with non-human produce what it means to be humans", in this chapter I examine how domesticated cattle, people, and mountains are entangled through practice, producing what I will term the "pastoralist landscape". The pastoralist landscape as I conceive it is characterized by a form of empirical knowledge about the mountains. I argue that a narrative framed within a binary opposition of state and society cannot provide a complete account of the predicament of herders in Ladakh. I view the pastoralist landscape as a tripartite assemblage, the product of the relationship between humans, animals, and the mountains, characterized by "asymmetrical relations among humans and non-humans" (Ogden 2011:28). The pastoralist landscape is subject to a range of forces: it is the product as much of political and economic factors, as of social and cultural practices. An examination of how these elements coalesce and interact to produce the assemblage of the pastoralist landscape is indispensable to understanding the predicament of herders in Ladakh, and the particular insights it provides for our broader understanding of local forms of knowledge about the environment.

[139] Except when I specify otherwise, I use the expression "cattle herder" as a collective term for people who keep both large livestock (yaks, dzo, cows) and small livestock (sheep, goats).

Below, I will first detail my conceptual approach to the pastoralist landscape, which revolves around movement. Next, I take the reader to the high pasture of Likir village to search for *aba* (father) Stanzin, a local herder. As I demonstrate, this landscape is dynamic, experienced through movement, and always changing. The disruption of the ties that enmesh the components that constitute the pastoralist landscape has implications for both the villagers and the production of the landscape itself. In examining the pastoralist landscape as a lived experience, a discussion I frame in reference to the work of anthropologist Tim Ingold, I address a number of questions on the conception of the physical human body in its engagement with the environment and the resulting production of the pastoralist landscape. What happens when increasingly aging bodies must cope with the challenges of physical work in a difficult terrain? What happens to the pastoralist landscape when an aging workforce is not replaced? Finally, I examine the entanglement, within Ladakhi cosmology, of the components forming the pastoralist landscape – mountains, animals and humans – and analyze elders' perceptions of the disentanglement of these components as linked with the depletion of the environment and village depopulation.

Herding as a Way of Engaging with the Mountains

In 1887, the British explorer and Army officer Francis Younghusband crossed the Mustagh Pass, which marks the watershed between India and Central Asia and which leads to Leh from Yarkand. At 19,000 feet of altitude, within distance of K2, the world's second-highest peak, Mustagh is a formidable challenge. Younghusband is reputed to be the first European to have accomplished the crossing, a feat repeated only twice since then (Rizvi 1999:26). This was the

time of the "Great Game", the strategic rivalry between the British and Russian empires vying for supremacy in Central Asia. One of Younghusband's guides was a man from Baltistan, named Wali, whose loyalty and skill made a strong impression on the English explorer. Following the hazardous crossing, which had elicited great fear in the ranks of the expedition crew, composed of Ladakhis, Chinese, and Baltis, Younghusband asked Wali if he would be willing to guide him once more over the Mustagh. In his memoirs, entitled *The Heart of a Continent*, Younghusband recalled:

> [H]e replied that he did not want to go, but if he were really required he would undertake to guide me; the only condition he would make would be that I should not look at a map. He had heard that Englishmen were rather inclined to guide themselves and trust the map rather than the man with them. If I was going to do that, I might, but he would not go with me. On the other hand, if I would trust him, he would take me safely over (Younghusband 2009[1904]:105-106).

While this passage demonstrates that outsiders have long relied on local knowledge in order to navigate the Himalayas, it also reflects two fundamentally different ways of navigating the landscape. What distinguishes Wali's approach and knowledge of the mountains from that of the "Englishmen" is how it is embodied – one is systematized and contained on a piece of paper, the other is indissociable from the body itself. Described as tools of colonial supremacy and as ways of dominating landscapes and populations, maps constitute a particular mode of engaging the landscape: a map freezes knowledge in time and approximates the components of the physical environment as lines traced on paper. But, for a guide like Wali, knowledge of a place is a dynamic process that emerges from bodily engagement; in other words, landscape and the body fuses in practical experience. Knowledge about the environment is first and foremost a body that feels an which, through *in situ* reading of the topography of the landscape,

can make an educated guess on what lies behind a summit, what route is the best to follow, and what dangers may lie ahead. Moreover, mountainous terrains are not fixed and maps cannot account for myriad reconfigurations brought about by avalanches, rockfalls and other processes of change in the mountains and which can force travelers to take alternative routes. For all these reasons, a guide like Wali, who knew the landscape through lived experience was likely to be suspicious of maps. As phenomenological approaches to knowledge acquisition have demonstrated, people and land, the perceiver and the perceived, are not separate entities that can be considered in isolation.

I refer to this example above in order to point at how embodied knowledge comes to develop in Ladakh. As we saw in Chapter 4, farming enables Ladakhi to develop an acute knowledge about the land, water and meteorological conditions. In this chapter, I focus on knowledge that develops not only through movement but also through engagement with non-humans. Mountain guides' seemingly innate ability to read a landscape can only come from years of practice and experience; it "builds" in the body through time. In Ladakh, people acquire the skills and knowledge necessary to read the landscape primarily through agro-pastoralist activities, often since early childhood. Like the Komi herders of North Russia, who learn to read the Taiga through reindeer rearing (Habeck 2006) or the fishermen of the Solomon Islands who navigate waters without nautical instruments owing to years travelling the sea to ensure their subsistence (Lauer and Aswani 2009), Ladakhis' relationship with animals channels knowledge about the environment and is central to landscape practices.

Following Claude Lévi-Strauss' (1963) cue that "thinking with" animals was fecund to the study of humankind, anthropologists have produced a wealth of writing on human-animal relations. As Mullins (1999) points out, initially this scholarship took on a largely anthropocentric perspective, as it focused primarily on the cultural and historical context of relationships between humans and animals, rather than on an analysis of these relationships. More recently, however, anthropologists have started to shift the analytical lens to a focus on animals as members of human society (Knight 2005). Stamped with the mark of post-symbolism, this scholarship is part of a broader body of work that focuses on human and non-human relations and it elaborates a critique of the hegemony of Euro-American assumptions on the strict theoretical boundary between human and animal by reconsidering many of the concepts of social theory among them power, knowledge, personhood, and agency (see Kohn 2007, 2013; Feinberg et al. 2013; Nadasdy 2007; Stépanoff 2012).

In her ethnographic study of alligator hunters in the Everglades, Laura Ogden (2011) speaks of a "hunter landscape" composed of "a set of relations among human and non-human" that are contingent on cultural practices and economic factors. Whether considering swamps or farmland, "landscapes", Ogden (2011:28) argues, "are assemblages of collective species, the product of collective desires and the asymmetrical relation among human and non-human". Hence, becoming a human, an alligator or a mangrove are contingent processes "specific to particular temporalities, power relations, and geographies (material and imaginary)" (Ogden 2011: 28). I will draw on Ogden's model in my discussion of the pastoralist landscape of Ladakh, considering that it emerges from an assemblage of humans, animals – yaks, dzo, cows sheep, and goats – and mountains.

Deeper philosophical considerations of whether or not some non-humans are selves and have intentionality would require an integral and separate treatment. For the purposes of my discussion, couched in the view that animals contribute to the production of a landscape, I will focus on the active role animals play in knowledge acquisition and their agentive potential within this process. Bourdieu's (1977) shift of perspective on cognition from that of an internal mental activity to that of a process deeply linked with empirical experience was seminal for work on knowledge acquisition through practice or practical activities of the world. Anthropologist Tim Ingold's research on hunters and gatherers has been highly influent for the integration of animals into our understanding of knowledge acquisition processes and landscape practices. Moving away from a view that culture precedes knowledge acquisition, for Ingold (2000, 2007), movement and exploration are, as discussed earlier, central to knowledge acquisition. Stressing the significance of the interrelation between practice and knowledge, Ingold (2000:57) goes on to explain that "through the practical activities of hunting and gathering, the environment – including the landscape with its fauna and flora – enters directly into the constitution of persons, not only as a source of nourishment but also as a source of knowledge". It is with these analytical elements in mind that I will discuss how agro-pastoralist activities produce a specific form of knowledge that is an integral part of the assemblage that forms the pastoralist landscape. But first, I will address some of the issues currently surrounding the various animals that both participate in and impact the production of the pastoralist landscape today.

Territorial Claims: Predators and "Companion Species"

As we drank butter tea with *ama* Youthol in Saspotse, a tiny village bedecked with blooming rhododendrons, her phone rang. The middle age womand quickly pulled the device out from her *konchas* to learn the bad news the caller was announcing: a snow leopard had made another attack, this time in Yangthang, a few kilometers away. The big cat had terrorized the Sham Valley throughout that summer. In one village after another, it attacked not only dzo grazing in the summer pastures, but also sheep and goats in their pens, within the villages themselves. Villagers were distraught over the attacks. A few days before, the predator had also killed many animals in Skindeang. Even more shocking was the fact that the usually timid snow leopard made its attacks during the day. In Ulley, a tiny village of less than 10 inhabitants, a man had seen the snow leopard on the road and was even able to immortalize the moment with his cell phone camera. Apparently, the big cat was not a bit bothered by his presence.

In the hope of meeting shepherds and herders in the summer pastures, Pema and I had embarked on a summer trek through Sham the previous week. From village to village, people recounted the predator's ravages. It seemed, in fact, that we were following in its tracks – or worse, as Pema suggested with an amusement that I was not sure I found amusing, perhaps it was following us. As we sat with *ama* Youthol, we reflected that if the snow leopard was consistent in its course, its next attack would be here, in Saspotse, or in Likir, within the next few days. That night, barely able to sleep, *ama* Youthol made successive round trips between her room and the enclosure next to the house to check on her sheep and goats.

The next morning, we decided to trek to Likir village. To my great relief, the only wildlife we encountered on the way were a few Himalayan snowcock. Upon arrival in Likir, we stopped for chai next to the monastery, where we met with Gyatso, one of Pema's friends. We soon learned about another attack: a few days before, *aba* Stanzin had lost one of his cow to a pack of *kishang*. As if the big cat's reign of terror was not enough, hungry *kishang* were also stalking villages all over Sham. The canine predators showed little fear of humans, wandered into villages and approached houses. Villagers had grown increasingly fearful of the *kishang* in recent years. Gyatso even confided that he was afraid for his children's safety when they played outside. His apprehension was well justified. Early in 2015, a woman in nearby Saspol village was killed by a pack of *kishang* in a particularly savage attack that had reportedly shocked villagers throughout the Sham Valley.

In the past, villagers had relied on traditional mechanisms, much as they might appear contradictory to Buddhist values, to control the population of predators. Herders would go into the mountains in search of predator cubs. Out of a litter of wolves, for example, which can comprise up to seven cubs, two would be kept alive and the rest killed. This method was also designed to deter adult wolves, as local knowledge held that a female wolf will never return to a place where her cubs were killed. Upon bringing the spared cubs back to the village, the hunters would be rewarded with barley grain in a practice called *shang-shang*. The Buddhist moral imperative of harmony with animals was balanced by the necessity to control the population of wolves to prevent excessive attacks on the dairy animals that are fundamental to human survival in the cold desert. Displaying the spared cubs before releasing them back into

nature was also a way to prove that the killing had not been indiscriminate. Hence, the population of wild predators in the Sham valley was to a great extent controlled.

Issues of wildlife depredation often overlap with issues of wildlife conservation, observes Knight (2000), and the observation holds true in Ladakh. Enacted in 1978, the Jammu and Kashmir Wildlife Protection Act banned the killing of wildlife. The Act stipulated severe prison sentences for offenders, effectively putting an end to local population control mechanisms.[140] Many villagers blame the increase in wolf and *kishang* attacks on the ban, but they also cite the widespread presence of military installations. The population of *kishang* seems to have risen significantly in recent years. This increase is widely attributed to easy access to food sources around military compounds and around the numerous campsites housing road builders working for the GREF. In addition, it is common practice for the army to transport dogs found wandering around military compounds elsewhere into the Sham valley; many end up finding their way to the villages. The growing dominance of Buddhist orthodoxy in the region has equally become an important factor in prohibiting the killing of animals. While in the past, urial, blue sheep and goats were sacrificed for religious rituals, such practices are nowadays the object of strong moral disapproval on the part of clergy, contributing to a greater popular sensitivity to Buddhist ethics, in which killing animals is a sin. It is also this same orthodoxy that currently prevents the adoption of measures to limit the proliferation of *kishang*, to the great concern of many.

The conceptual segregation between the categories of nature and culture, as well as a separation of people from their surrounding environment, underpin many contemporary

[140] See Fox (1991) et Fox *et al.* (1994) for questions of wildlife conservation in Ladakh.

attempts to manage the natural environment an has been the object of much criticism by anthropologist working on a wealth of research on related themes, such as questions of wildlife management (see Igoe and Croucher 2007; Nadasdy 2003), people-wildlife conflicts (see Knight 2000), and the social impacts of the creation of protected areas (see West et al. 2006). Another argument recurring in this literature is that conflicts between people and the state run through the heart of many problematic issues centering on interactions between humans, animals, natural resources, and the physical environment. Yet, comprehensive understanding of the predicament of Ladakhi herders, needs us to consider other factors than state regulation. The growing attacks by *kishang* and snow leopards must also be read against the backdrop of the ongoing depopulation of mountain villages. The economic restructuring of Ladakh has played a significant role in changing agro-pastoralist practices, in particular by diverting younger generations towards other occupations, while the aging agrarian workforce is not replaced. *Aba* Stanzin incarnates a lifestyle that is disappearing, not only in Likir, but all over the Sham valley. Villagers seemed particularly upset, even indignant, that his animals had been attacked by a predator and I contend that this is closely linked with the changes they see happening all around them. Many people in Likir spoke of *aba* Stanzin as the resilient villager who still treks to the *phu* every day with his herd.

What distinguishes Ladakhi villagers' relationship with the *kishang* from their relationship with livestock? On the one hand, as we will see, *kishang* are predators moving into a territory decreasingly occupied by humans. The *kishang* – a crossbreed that state policies and practices have contributed to produce, combined with the fact that local religious values prevent the adoption of measure to prevent its multiplication – is an intruder whose presence contributes

to the predicament of herders. Livestock such as yaks, dzo, cows, sheep, and goats, on the other hand, are domesticated farm animals. While domestication is normally seen as the control of humans over animals, in her recent work, Donna Haraway (2007, 2003) invites us to think of domestication in a different way. She uses the trope of "companion species" in order to deconstruct the assumed dividing line between human and animal, as well as between self and other. As significant others to each other, Haraway explains, humans and domesticated animals evolve conjointly, always in complex and asymmetrical ways. Haraway develops a critique of the dogma of "human exceptionalism" and its corollary dichotomous view that domestication by humans is separate from and dominant over naturally wild, but tamable animals. Rather, Haraway argues, humans and other species coevolve in a complex relation of dependency and interdependence. Animals, in this view, are "companion species" and in a sense tame humans according to their own needs. As I discuss in the following section, as companion species, domesticated livestock are central not only to the production of the pastoralist landscape, but also to the constitution of the cattle herder, because they contribute to his ability to develop a body of empirical knowledge about the environment. Domestication therefore fashions humans. Conversely, in complicating the work of herders, predators, for their part, are counterproductive elements of this production.

Searching for *Aba* Stanzin

Eager to know more about *aba* Stanzin and hear what he had to share, Pema and I decided to join him on his daily trek the following day and Gyatso decided to accompany us. *Aba* Stanzin normally leaves for the *phu* with the early morning light to climb towards the high pastureland before returning home at dusk. As *aba* Stanzin's house is in the upper part of the village, a few

kilometers from Gyatso's house, where we spent the night, the three of us set off at daybreak. The morning was cold, but the piercing sun foreshadowed a nice day ahead. The path that goes up the valley is following the main stream of the village. The source of water has generated lush green vegetation around. The leaves of the poplars and the willows are gently flowing in the wind. The stream has a good amount of water towards the upper part of the village, but things are otherwise for those living downstream. Like many villages of Ladakh, Likir is touched with conflicts among water users that have often been ongoing for years.

As we reached the upper part of the village, we passed the government-run school where Gyatso's daughter would spend her day. As in many government schools in Ladakh, Gyatso informed us, attendance here was on the wane, as parents increasingly opt to send their children to private schools elsewhere, which they consider to provide a better education[141]. As children are sent to boarding schools in Leh and even in other Indian states, becoming what is termed "parachute kids" (Tsong and Liu 2009), the trend disconnects the younger generation from rural life and further contributes to the villages' population drain. Indeed, an increasing number of village schools are closing in Ladakh due to decreased attendance. But the impact of schooling on village dynamics is not a new concern. Elders recall that when state schooling was first introduced into the villages of Ladakh in the late 1950s, some parents hid their children when government officials made the rounds to enforce mandatory enrolment because they worried about lacking working hands to take the animals in the *phu*.

[141] Sonam Wangchuk, a well-known education activist in Ladakh, provides an interesting counter-argument to this view. See http://www.reachladakh.com/in-conversation-with-sonam-wangchuk/1560.html

Figure 19. *Uncultivated terrace fields in the upper part of Likir village (photo by author)*

We continued on our way and reached *aba* Stanzin's house just over an hour after our departure, only to find out that we were late. His wife, a charming woman of small stature, informed us that *aba* Stanzin had left for the *phu* some time ago with his second wife: although never as prevalent as polyandry, polygyny was in the past an widely accepted form of union in Ladakh. We continued our ascension towards the *phu*. The higher we climbed, the more the landscape became rugged, the ground strewn with large stones. We passed terrace fields overgrowing with weeds and showing no sign of the tell-tale furrows of plowing (see Figure 19). Similar images of abandoned land recur throughout the Sham Valley. In every village of Sham, I met families, and heard of others, who had stopped cultivating some of their land. In the words of some villagers, these people "have abandoned their land" a formulation that points to the sense of shame Ladakhis attach to disconnecting from the land.

Higher up, we came across a man who was sitting and spinning wool while watching over his sheep and goats as they grazed in a *spang*. The *spang* is a grassy, damp marshland fed by underground springs. Its thick grass and moss provide food for cows, yaks, dzos, horses, and donkeys. The *spang* is especially valued for winter grazing, since animals can get stuck in the snow up in the *phu*. Closer familiarity with the features, or units, of the Ladakhi landscape, which can be defined according to functional, topographical, biological, and geographic criteria, reveals a rich variety that contradicts the untrained eye's first impression of infinite areas of wasteland[142]. Seemingly barren, the mountains contains the precious resources that have for ages sustain the population of Ladakh, revealing a place more lush than my neophyte eyes could first see upon arrival in the region. They offer up a variety of resources for villagers: while some of the small plants that crop up in the mountains are the pharmacy supply of the *amchi*, the traditional medicine practitioners, other vitamin-rich plants supplement the local diet. Other finds, such as arid bushes and various woody species, as well as dung produced by grazing animals, are precious combustible materials used to heat homes in winter. Even the vast plateau which is the *thang* nevertheless provides villagers with building materials such as rock and sand, and offers rough grazing for animals. Thus, Ladakh's parched mountains and plateaus abound in resources if one knows where to find them; the local population's knowledge of these resources and their uses has been passed down throughout generations. In the past, villagers would spend long days in the mountains in preparation for winter, collecting wild plants and shrubs as fuel. In order to ensure the sustainability of these resources, village headmen set annual limits for how much each household could collect. Today, due to easy

[142] See Dollfus and Labbal (2009) for a detailed study of landscape features in Ladakh.

access to kerosene and other resources, people spend less time in the mountains in the weeks before winter.

We sat with the man and rested up. He shared with us some dried apricots, a delicacy typical of the Sham area. During my time in Sham, elders repeatedly told me that apricot trees, numerous today, were once few in the area. Villagers often attributed this to warmer temperatures, but it should also be noted that the government has introduced in the recent past, several schemes that rewarded villagers financially for planting trees. The growing number of tree plantations on village lands is an additional complication for sheep and goat herders. Because time-honored tradition holds that goats be allowed to roam free in the villages, they often eat the bark of harvested trees, leading to tensions between herders and tree growers.

As we talked with the shepherd about the current *kishang* problem in the valley, the man suddenly directed our attention to the stream flowing nearby. On the other side, some fifty meters from us, grazed a herd of urial[143], Ladakh's wild mountain sheep. They had evidently descended from the mountains in search of fresh grass and bushes. Classified as at high risk of endangerment by the International Union for the Conservation of Nature (IUCN), the total population of urial (*ovis orientalis vignei*) in India was estimated to be between 1,000 and 1,500 animals in a study published nearly 25 years ago (see Fox et al. 1991). According to the same study, Ladakh urial populations showed a dramatic decline in previous decades and were

[143] The urial of Ladakh are mostly distributed within a narrow band along the Indus and the Shyok rivers.

particularly negatively affected by military conflicts during the years 1947-1962[144] (see also Mallon 1983). Seeing such rare animals up close felt quite fortuitous. We all seemed compelled to watch them in silence for a long while, contemplating their beauty. But the stillness of the moment was undercut by a disquiet: the urials' presence here was also a reminder that all was not well in the mountains. The shepherd told us that it is increasingly common to see urial close to the village. The changing meteorological conditions of recent decades have resulted in less rain and snow, causing a depletion of vegetation cover in the mountains, a critical phenomenon to which I will return below. This was certainly contributing to the presence of the snow leopard and the *kishang* in the village as they have followed their prey to lower altitudes. As the herd left, we quickly resumed our trek. The man stayed behind and continued spinning his wool. As pastoralism is increasingly loosing ground, such scene, which marks several narratives of Ladakh, is on the wane. Buying clothes in the market is an alternative that has today largely replaced the necessity to weave clothes.

Villages of Ladakh are generally quite silent to begin with, yet the further we climbed, the more an even greater silence seemed to envelop the surroundings. The thinner the air, the softer the sounds, it seemed. As soon as we climbed beyond the village limits, the landscape changed markedly. The tree line was now behind us, giving place to massive rock formations and tundra-like vegetation. The air felt colder. I had to put my jacket back on. I had removed it earlier on, to the great consternation of my companions. Given that the temperature in the mountains can change drastically within only a few meters of altitude or between direct

[144] Unfortunately, no recent data on urial populations in Ladakh are available, but the Jammu & Kashmir Wildlife Protection Act has most likely contributed to stem its decimation.

sunlight and shade, Ladakhis most often keep their *konchas* or jacket, even in high summer, when the temperatures are quite comfortable.

Figure 20. *The phu of Likir village (photo by author)*

We walked along the western flank of the valley in order to avoid a damp marsh bounding the stream, but soon came up against a difficult terrain strewn with boulders. We had reached the beginning of the *phu* (see Figure 20). Rust-colored moss covered the boulders in patterns resembling artistic design. We pressed on, but, as we came up against progressively bigger boulders, the trek turned into a session of rock climbing, at which I proved particularly bad. Our pace slowed considerably. Deciding that this was an unproductive choice of paths on our

quest to find *aba* Stanzin, we changed direction, regained easier ground and continued on our way up.

Although cattle herders often evoke the pleasures of life in the mountains, they also often stress the physical challenges of bringing the animals to the *phu*. Particularly evocative of these realities is the testimony of Tsewang Dolma, from Nye village, who recollected for me her years of herding at high altitude in difficult terrain:

> In the morning, at sunrise, at about 4 o'clock, I had 110 goats locked in this *starra* (pen) just beside our house. And after we got up, we would water the fields, milk the cows, and do other chores, pack *kolak* and go out to graze. I would stay in the mountain until about 5 and then, we would start gathering the cattle back and then, in the evening, around 7 I would get back to the house and lock them back in the pen. All day long, I would walk with the goats and collect dung in the mountains. It was so cold in the mountains, sometimes it was miserable. My feet were red because of the cold. My socks would be completely frozen with ice.

Herding is acknowledged as a difficult trade in Ladakh. Herders experience high levels of physical stress, both because of cold temperatures and the demands of roaming a mountainous terrain on a daily basis. Indeed, those with many years of herding behind them often bear the toll, developing chronic back and muscle pains. One popular Ladakhi truism holds that herders can be recognized by their slim appearance because of constant physical exertion.

Herders do not spend the whole year trekking in the mountains. In winter, after the crops have been harvested, the animals are kept in the fields so they can fertilize the soil with their manure. But during the growing season, usually from late spring through the summer, the livestock is kept far away from the croplands in order to prevent damage. At this time of the year, animals are kept in corrals, usually near or in the village, close to the houses, and brought

out to the pastures during the day. But work organization also depends on the location of a given village and its proximity to high pastureland. In some villages, during the farming season, from about May to October, the cattle is kept closer to the *phu* in the summer village, a place also called *mdjon* ("milk camp"). There, people stays in *pullu*, basic stone shelters, processing the cattle's milk into various dairy products, such as butter, buttermilk, yogurt and *churpe*, a dry cheese which is added to stew. Animals are also brought daily to graze in the high pasture. Higher in altitude than the villages, these seasonal settlements provide relatively low summer temperatures, ensuring that the milk and its byproducts do not spoil. In addition, the vegetation in the high pasture is said to be highly nutritious and Ladakhis believe that animals will produce good milk throughout the winter if they are well fed in summer. Alternatively, as is the case with *aba* Stanzin, cattle owners will trek daily to the *phu* with the animals or, otherwise, in a system called *ra res*, villagers collectively hire a watchman to graze the animals in the pasture, although this is falling out of use, as are many other community arrangements today.

Movement and sensorial observations characterize the pastoralist landscape. During a typical day in the mountains, herders trek to the pasturelands with their cattle in search of a good grazing spot where they can spend the day. Shepherds cover more ground in the course of their day, since sheep and goats are more mobile. But for all those involved in animal husbandry in Ladakh's mountains, travelling the terrain becomes a way of knowing a place. Someone familiar with the high pastures of Likir, for example, would not have become trapped in a cluster of boulders, as happened to our group. It is the animals, in fact, in particular sheep and goats, that dictate patterns of mobility in the mountains, as they choose

one or another path in search of good feed. The shepherds control their movements to a certain extent, but it is the animals that determine the overall direction. In the words of one shepherd, "There are always some that lead, and some that lag behind in the herd. Those who lead decide the way". Both shepherds and herders must remain ever alert to the surrounding landscape, as the threat of predators, their biggest concern, is always present. A lot of time is spent scrutinizing the landscape listening to all the surrounding sounds. To be effective, a shepherd must also keep an eye on animals that can run away or otherwise get separated from the flock. Searching for lost animals forces shepherds and herders to cover more terrain. Male oxen need little supervision and are left to roam free in the *phu* for much of the grazing season, their owners coming back for them only before winter sets in. But it is common for herders to be forced to make longer excursions than expected, since individual animals do sometimes wander off into adjacent valleys. Thus, in the formation of the pastoralist landscape, animals play an active role in how people know a place and acquire knowledge about their environment.

Having freed ourselves from the boulders, we were well into our trek when ahead of us we saw a woman sitting on a flat rock: she turned out to be *aba* Stanzin's second wife. In her mid 60s, her face was crisscrossed by deep wrinkles, the marks left by years of grazing animals in the mountains under a piercing sun. Her hands, damaged by work, thickened by cumulated injuries, and cracked by the cold weather, bore the testimony of long years of arduous work on the family farm. She was wearing a long khaki-colored *konchas* and woollen *pabu*, the traditional Ladakhi shoes. Yes, *aba* Stanzin was further up, she informed us. She had decided to stop here and was heading back home to help her sister with other matters. As he had probably gone up

quite high into the *phu* by now, *aba* Stanzin could be anywhere behind the mountains, she told us, looking at the summits ahead. Had we left earlier, we would have stood a better chance of catching up with *aba* Stanzin, but, now, it was becoming increasingly clear we would spend much of our trek searching for him.

Landscapes, Bender (1993) tells us, are not only spatial, but also temporal: they are "time materializing", they "never stand still". In this way, much like the hunter landscape that Ogden (2011:74) describes as materializing through the hunter's constant movement in place and time, Ladakh's pastoralist landscape materializes as cattle herders travel the mountains. The temporal dimension of the pastoralist landscape is multifaceted. The time of day a trek begins dictates how far and how high in the mountains it will reach and, accordingly, the places a herdsman will see on a given day. The cycle of the seasons, in addition, dictates the rhythm of the landscape. While Ladakhi herders spend almost half the year in the mountains, they rarely venture out to the *phu* in winter, when mobility is complicated by snow accumulation. On a larger scale, the landscape's temporality also spans years and decades, as is evident in herders' observations of how the physical landscape that surrounds them has changed over time. The testimony of Tsewang Dolma, whom I introduced earlier, is illustrative in this respect. When she used to go into the mountain above Nye with her animals, she would sometimes go as far as the local glacier, Chilchil Kangri. At the foot of the glacier was a huge ice cave, whose floor was covered by a carpet of colorful flowers, a spectacle she described to me with great passion. Chilchil is an onomatopoeia: the glacier's name imitates the loud rumble it emits, which Tsewang Dolma voiced enthusiastically during our conversation as "chil booong, booong, chil!". She recalled that the sound was so loud that, as

she approached through the steep narrow gorge leading to it, she could hear it rumbling even before seeing its snow-capped peak. Perhaps it was the sound of the water coming from below the glacier, she always wondered. But that was a long time ago. A few years before my visit, she returned to Chilchil Kangri and was dismayed to discover that much of the glacier's ice had melted away, the cave was no more, and even the flowers had all vanished. Perhaps even more striking, the glacier had become mute, its name now only a vestige of its former state. Glaciers in the Sham Valley are generally found at relatively low altitudes. Shepherds and herders like Tsewang Dolma, therefore, come into proximity with them while grazing their animals and, as a result, are able to make long-term observations on their condition. Tsewang Dolma had spent her entire life in the mountains, trekking to the *phu* with animals since she was only eight years old. The glacier was part of a lived experience and not just an image standing in the backdrop of her activity. Her experience, like the one of other cattle herders, also reveals the temporal dimension of the knowledge of the landscape, and the ability to decipher its changing features over time.

As we climbed on, encountering no sign of *aba* Stanzin, our chances of catching up with him seemed ever more meager. Although the *phu* before us was vast, providing us with an open view stretching far into the distance, neither he nor his herd were anywhere in sight. We nevertheless decided to persevere and so carried on with our trek. After some time, I felt famished – I speak only for myself, because Ladakhis seemingly never voice the urge to eat – and we paused once again. We all shared in the chapatti, eggs and boiled potatoes that Gyatso had packed, taking a welcome lunch break. The scenery was stunning. The wide valley ahead lay open before us the vista leading to a magnificent skyline of snow-covered summits. Ahead

of us was the Ladakh range, beyond which lies the Nubra Valley. I have often heard Ladakhi elders recollecting stories from their youth and how it would be common in those days to cross this range in order to visit relatives in Nubra. The way they talk about crossing such a high mountain range as if it were a casual affair always amazed me. In front of us, the peaks of the Stok range were touching the compact blanket of clouds that had formed above. Not too far from us, a lammergeyer, a bearded vulture, was circling in the sky, barely flapping its wings. Among these craggy mountains, the vulture was no doubt at home. Perhaps it was eyeing the remains of one of *aba* Stanzin's dzo somewhere ahead, we thought. As a scavenger species that lives on a diet consisting almost strictly of bone marrow, the lammergeyer of Ladakh are probably quite content with the increasing number of snow leopard and *kishang* attacks. Perhaps this explains why they could be spotted so frequently in the sky.

Figure 21. *Abandoned pullu in the phu of Likir village (photo by author)*

After some time, we came upon a group of abandoned and decaying *pullu* (see Figure 21). The scene spoke for itself: the *pullu* are vestiges of an era that is rapidly coming to a close in the Sham Valley today. A bit more than a decade ago, this place would have been alive with herders staying to accomplish dairy work. Now it conveyed the impression of a ghost town. There was no one to be seen. Individual stones had begun to fall away from walls, without anyone to put them back in place. The deserted milk camp stood in apt testimony to a way of life and a body of knowledge that seem to be dissipating like sand blown by mountain winds.

Pema, who walked ahead, called to us suddenly. On the ground, next to a large rock, were the remains of a recently killed cow, likely one of *aba* Stanzin's (see Figure 22). It was clear that the large beast had stood no chance against a voracious predator. Looking at the carcass, we all stood amazed at the violence it bespoke. "That poor beast", said Gyatso. By then the sky had filled ominously with clouds and a cold wind was blowing. We had ascended just over 1,500 meters, although at such a leisurely pace that it had taken us many hours. We were well into the afternoon and, below, the village seemed vey far away. *Aba* Stanzin was somewhere in the upper part of the *phu*, but so far ahead that we could not see him. We decided to abandon our search and began our descent back to the village.

Figure 22. *Pema standing near the remains of a recently killed cow, likely belonging to aba Stanzin (photo by author)*

Aging Bodies of Knowledge

When a dzo gets old it's the slaughterhouse
When a man gets old it's the prison cell
Tibetan Proverb

In his essay *Tibet: Its History, Religion and People* (1972), Thubten Jigme Norbu, brother of the fourteenth and current Dalai Lama, reflects on the experience of the Himalayas as a place. For

Tibetans, in his view, both the harshness and splendor of their homeland are proof that they live under the protection of the bodhisattva Chenrezig[145]. The landscape he describes is much the same as Ladakh's:

> We are surrounded by huge mountain ranges, always covered with snow, high and perilous. On the narrow trails that hang from the side of great cliffs the wind can sweep a whole caravan to its death. The wind can kill by its very coldness. […] But even in these most desolate and barren heights, far above the level where trees and shrub can grow, there is a constant beauty and a kind of rough gentleness (Norbu and Turnbull 1972:39).

In this passage, Thubten Jigme Norbu describes how in his view, this landscape is intricately linked to people's sense of being: the countryside is the ultimate locus of a true understanding of the interrelation between the self, the sacred, and the materiality of the landscape:

> I know that those of us who have had to leave Tibet feel a real loss not being able to see our mountains and feel our winds and breathe the cold air. It is a countryside that takes our thoughts directly to a state of existence far above our own. Its very size and splendor make a man's thought turn inward. In Tibet, *we live with the world around us, not just in it* [emphasis added]. In itself, it seems part of our blessedness (Norbu and Turnbull 1972:39).

For Thubten Jigme Norbu, Tibetans do not simply exist in a place: place is also part of their inner being, thus the sense of loss for those who have had to leave is all the stronger for Tibetans, in his view. The dialectical relation between physical and cultural landscapes has been the object of a body of work, inspired by the writings of Merleau-Ponty (1962) and Heidegger (1971), which seeks to demonstrate within a phenomenological perspective how places and landscape affect each other in reciprocity. In the words of Christopher Tilley

[145] Chenrezig, or Avalokiteśvara, one of the more widely revered bodhisattvas of Mahayana Buddhism, is a bodhisattva who embodies the compassion of all Buddhas.

(1994:18), who is often credited with incorporating phenomenology into archeology, "place is an irreducible part of human experience, a person is 'in place' as much as she or he is 'in culture'".

Ingold's (1993, 2000) seminal approach to phenomenology and the study of human perceptions of and engagement with the environment has been of much influence in recent anthropological research. For Ingold, humans engage with places in a bodily process that connects them to the physical landscape as they dwell in the world. As Ingold explains in his widely cited *Temporality of the Landscape* (1993), the human body is embedded in the world; this is an organic process, for since both are embedded, landscapes and human bodies evolve conjointly. In many ways, the landscape that Ingold conceptualizes is a narrative in constant development: as much as a landscape contains memory and becomes a repository of past events and of the passage of time itself, it unfolds and changes as humans dwell in places. As a repository of time, a landscape is never detached from human experience for it is in engaging with a place that one engages in a complete mind-body act of remembering. Personified in the figure of Walter Benjamin's (2002) flaneur and Michel de Certeau's (1984) wanderer, it is bodily immersion, through spatial practices such as building and walking, that characterizes our relationship with the landscape. The passage of time can thus be interpreted as "our own journey through the taskscape in the business of dwelling", in which the "taskscape" is the range of activities involved in engaging the world the world through labor and inhabiting it through building technologies (Ingold 2000:196).

Several authors have argued that phenomenological approaches to place have eschewed questions of power, evacuating issues of uneven relations and broader political economy from analyses of the processes through which places are made and remade (see Escobar 2001; Massey 2005; Mitchell 2002). Much the same critique applies to the conception of people as physical bodies that dwell in places and perceive the landscape. If place and landscape are embodied experience and if their production is the result of a reciprocal relation between humans and the physical environment, what is the impact of aging on these processes? The literature has not, thus far, adequately problematized the body of the perceiver as a vehicle of perception that engages with place and environment. There is an important analytical gap that has thus far marked scholarship focusing on knowledge as a situated practice, namely the conceptualization of the body, the vehicle through which people engage most directly with the environment.

The temporality of the body is a lacuna in discussions of the temporality of landscapes. The phenomenology of landscapes and places must be reconciled with the politics of the body if we are to understand how aging impacts the experience of places, place-making, and the acquisition and transmission of empirical knowledge of the environment. If the production of place and landscape is a reciprocal process that involves humans, it follows that the characteristics of a place have an impact on an aging body and an aging body has an impact on the nature of a place. In many ways, our unfruitful search for *aba* Stanzin in the *phu* of Likir can be seen as a search for any cattle herder. The scenario would have been quite different one or two decades ago, when the majority of households sent someone to the *phu* each day or for the whole duration of the farming season. As I explained at the beginning of this chapter,

Ladakhis in the Sham Valley today do not keep as many grazing animals as they once did due to a complex set of factors. Another dimension that must be considered when thinking of aging bodies is the physical toll of herding work and the very physicality of Ladakh as a place. As I explained above, herding is physically strenuous, particularly because it involves roaming swaths of highly uneven, steep, rocky terrain. As an old man told me unequivocally, "it is only because I am old that I cannot go in the mountains anymore with the animals".

The pastoralist landscape is a set of relations between humans and non-humans. When the animal is removed from the equation, what happens to humans and, by extension, to the pastoralist landscape? Conversely, what happen to the pastoralist landscape when animals are not kept anymore? As an aging generation of herders is not being replaced, largely because of new employment and educational opportunities opening for younger Ladakhis, much of Ladakhi knowledge about the mountains is being lost. This knowledge includes not only the ability to read the landscape, as well as the use of plants and other mountain resources, but also the capacity to observe changes in the elements of the physical environment over time and the transmission of oral narratives about places in the mountains. Today, very few villagers travel to the *phu* and many young people have never trekked past the tree line above their native village. As one woman told me, "Younger generations don't know about the glaciers today as many of them haven't reached the *phu* a single time".

Our unfruitful search for *aba* Stanzin is evocative of the growing trend in Ladakh to progressively abandon or diminish the extent of agro-pastoralist activities. The dynamics of mountain depopulation in the Sham Valley are perhaps not representative of Ladakh as a

whole: in some areas, the Changthang plateau in particular, villagers still keep large numbers of sheep and goats and continue to spend the farming season in the summer villages and milk camps. Yet, there is a widespread feeling among Ladakhis elders that, as people increasingly abandon animal husbandry, a way of life in the mountains is coming to an inevitable end (see Dollfus 2012). As we saw in Chapter 1, the organization of work and spatial knowledge in Ladakh are profoundly social and linked with community and family arrangements. Maintaining these arrangements is increasingly difficult in the restructured economy of Ladakh and, as we saw, the situation is further made difficult by an increase in the number of predators preying on farm animals. As we will now see, for Ladakhi elders, the disassembling of the pastoralist landscape goes hand in hand with environmental change.

Disassembled Landscape: Dying Villages, Dying Mountains

> There are not many goats and sheep these days because people have become bad and are not interested.
> – *Phunchok Stobdan, Tingmosgang village*

By midsummer, Leh had turned into a bustling tourist destination. Tour operators, guides, and restaurant owners accommodated visitors from all over the world. Four-wheel drive trucks crowded into Leh's narrow streets, the blare of beeping horns sounding the end of the long calm of winter. The summer tourist fever reached as far as the villages of the Sham Valley, those along trekking routes in particular. But despite this increased activity, in elderly people's view, the villages remained empty compared to what they remembered from their youth. In elders' discourse, the villages of Ladakh have become desolate places. As new employment opportunities are driving people of working age out of the villages, as children are increasingly

put in boarding schools in Leh and outside Ladakh, and college and university students spend years in Jammu or Delhi, often without ever coming back to settle in their village, and as the villages and pastures are no longer filled with animals, elders feel that they have been abandoned.

In our conversations, elders repeatedly despaired over how "there is only old people in the houses today" and how "old people are left alone in the villages", their deep sense of nostalgia almost tangible. In practice, no one village is inhabited exclusively by elders. Although many people from the villages today spend a great deal of time working or studying elsewhere, village communities are still made up of men and women of all ages, farmers, retired army officers, college and university students visiting home, workers on leave, and so on. Thus, when elders express feelings of isolation, they are expressing nostalgia for a previous era – recreated as free of tensions and exploitation – when work arrangements depended on a community cohesion, which was regularly celebrated and reinforced through annual religious festivals in which all villagers participated, and when their opinions were taken into consideration. These aspects of village life are today falling by the wayside due to demographic changes in rural areas. Elders' nostalgia often gravitates towards days spent in the high pastures, a lifestyle in its own right. As shepherds and herders often told me, despite arduous physical work, days in the pastureland were quite pleasant, spent singing, sharing stories, socializing, and, as some admitted, the pastures are also a place where romance blossoms. Overall engagement with the landscape through shepherding and herding is a way of life that was strongly connected to the identity of a generation of villagers.

If, as Bender (2002:104) argues, landscape and time are always subjective – since "the engagement with landscape and time is historically particular, imbricated in social relations and deeply political" – it follows that the current historical and social context brought about by the economic restructuring and the militarization of Ladakh has over time altered the way people perceive the local landscape. Much of the wistfulness that Ladakhi elders feel is inscribed in the materiality of the landscape, and as this landscape is a pervasive dimension of their everyday life, the same feeling acts back on them. The spatial philosophy of Gaston Bachelard finds relevance here. At first a postal worker, Bachelard went on to study science, before finding his calling in philosophy in the 1920s. While he became an epistemologist, whose work would later influence other prolific French philosophers, such as Michel Foucault and Jacques Derrida, Bachelard was also deeply interested in the interrelation between poetry an imagination. The dialectic between epistemology and imagery informed Bachelard's thought and led him to interrogate the relationship between rationality and imagination, which he saw as potentially complementary, considering that imagination could help in building scientific models. The interplay between imagination, knowledge and materiality was at the heart of his *Poetics of Space* (2004[1957]), a phenomenological inquiry into the significance of spaces, in which Bachelard more specifically studied architecture as a lived experience. He developed his argument on the basis that a house is an extremely powerful place, where space, memory, dreams, and imagination intermingle and integrate through experience. Space, says Bachelard, is comparable to a poetic image, since, in the same way that the poetic image emerges from language, the poetic space emerges from living and experiencing the house as a place. The poetics of space is thus about considering space as a

creator of images that express our intimate sense of private life and in many ways, our sense of self.

While Bachelard's reflection addresses a physically embedded phenomenology, his insights are fecund for considerations of how people engage with landscapes. Just like Bachelard's house, a landscape is sensed, makes itself sensed, and acts on people. The mountains share many commonalities with Bachelard's house, as they are the home of the cattle herders. The landscape of Ladakh, as I have reiterated throughout the present dissertation, has undergone significant changes in recent decades. Accordingly, there is a dissonance between past and current experience of this landscape. Since cattle herders have a deeply intimate connection with the pasturelands, the transformation of the terrain they saw over the years has a profound impact on their sense of being.

The trek to the *phu* on which Pema, Gyatso, and I embarked in Likir encapsulates the essence of how this landscape has changed over time at the village level. Instead of finding a place occupied by cattle herders, we found a deserted landscape marked by dilapidated seasonal settlements, uncultivated farm lands, an absence of grazing herds above the tree line, and predatory animals whose populations grow as human presence fades. Although these changes are most evident in the high pastures, they are perceptible in the villages as well: fewer domesticated animals, fewer people, less activity and movement; in sum, less vitality. For Ladakhi cattle herders, the gradual desertion of the high pastures over time and the progressive lifelessness that follows imbue the landscape with a pervasive sense of nostalgia.

Today, as no young generation of herders steps in to replace their elders, families are increasingly compelled to sell their cattle (see also Dollfus and Labbal 2009:85). In this context, many animal owners are confronted with a moral dilemma. The following is an excerpt from a discussion I had with a shepherd from Likir:

> Now the children no longer stay at home and the old people are not able to take care of everything alone and so there is no choice but to sell off the animals. The Balti come here and they buy all the cattle that the villagers don't want. People say that they are taking these cattle to kill and eat them! So when they come, we ask them if they are going to kill the animals and if so, then we tell them we are not ready to sell. They say they are not going to kill the animals, that they will rear them. But they say that only to make us happy; god knows what they do with the animals.

Because the lot of sold animals is likely slaughter, many Ladakhis see the dismantling of cattle herds as further proof of a negative change in moral values. Abandoning animals that have for generations helped humans to survive in this austere environment – by giving milk, fertilizing fields, and providing material for clothing – contradicts Ladakhis' sense of moral values. As discussed previously, Buddhist cosmology, in which nothing exists on its own, asserts that human morality has effects on the environment. For Ladakhis the human and natural realms are inseparable and evolve conjointly. Thus, while contemplating their changing environment, they see the growing desolation of villages and the abandonment of animals as causes of today's depletions, which include the desertification of the mountains, changes in weather patterns, the drying of springs, and glacier recession. Elders often see these adverse environmental changes as a "lack of luck" (*sode metkan*), which they associate directly with the reduced presence of cattle. In the words of an elderly woman from Nye village who spent her life in the mountain with the animals, "People are unfortunate nowadays. In those days, the people were fortunate. Even though they did not have a good education, *konjok*, they were

fortunate because they had cattle".

We have seen that for Buddhism, nothing exists on its own and everything is interdependent. For Ladakhis, the disentanglement of the components of the assemblage that forms the pastoralist landscape – humans, animals, mountains – alters the nature of the landscape that their interrelation produces. Since animals are a source of life, their abandonment is an act that reflects decaying moral values and, thus, according to the principle of retribution, leads to a depleting environment. According to elders, mountains once housed an abundance of various bushes and other plants, that provided food and other resources, vegetation that has now become scarce. Ladakhis ascribe this to the reduction of the precipitation necessary to sustain vegetation cover, which as per local cosmology, is a result of the principle of retribution, and to fewer cattle, whose manure once fertilized the mountain soil. Therefore, it is only in the mutually fruitful relationships between humans and animals that the agro-pastroralist landscape survives.

While thinking of human and animal relation as coevolving brings some light on processess of knowledge acquisition, one should not be too quick to rejet what anterior approaches have thought us about the symbolic meaning of animals for humans. When faced with the serious indignence of elders for the neglect of animals by younger generations, it is hard not to see the analogy with the treatement of elders today. In the restructured economy of Ladakh, domesticated animals are no longer relevant to the production of the household. Like them, elders are no longer productive members of the household and in the changing social context, their voice has also lost a measure of influence. A harsh, but realistic reading is that in many

cases, in this new social and economic context, both elders and domesticated animal have become a nuisance. Elders are obviously aware of that. In many ways, the emotional relationship that elders have with domesticated animals can be seen as a template for the emotional relationship they would like to have with others, their family in particular.

Conclusion: Circumscribed Knowledge

Contested claims on Ladakh's landscape today affect pastoralist activities and it is obvious that the state has far more power to define the experience of Ladakh as a place. State territorialization practices are depriving villages of the workforce that would traditionally have relieved the burden of aging parents. In addition, wildlife protection laws and easy access to food near military and road construction sites have contributed to the proliferation of predators. As new hybrids of nature and culture, the *kishang* calls to mind Latour's reflection, in his now classic volume *We Have Never Been Modern* (1991), that the nature/culture divide is a chimera of human imagination: society and nature are indissociable and the way humans conceptualize nature has direct implications for how they affect it.

State policies have a direct impact on the way Ladakhis engage with the environment. While sedentarization was not a facet of Indian statecraft in Ladakh, it did come about as one of its consequences. The economic restructuring of Ladakh and the widespread involvement of the local population in the military apparatus has altered the way Ladakhis engage with the landscape. Due to rural out-migration, shepherding and herding have become marginal activities in the Sham Valley, greatly reducing the population's mobility in the mountain

landscape. As a consequence, local knowledge about the mountains has been significantly impoverished.

As I have sought to demonstrate in the present chapter, the predicament of Ladakhi herders is multifaceted and state-level development is not the only source of pressure for change. Those who strive to continue that way of life do so against ever more daunting odds. The struggle for continuity is increasingly hobbled by ongoing economic change. Numbers of villagers, for example, see the presence of livestock as a threat to the new lucrative business of tree plantations, leading them to reject time-honored community grazing arrangements. Additionally, there is an increase of attacks on cattle. Laws aimed at the protection of wildlife, while undoubtedly well-intentioned, have curtailed traditional measures of controlling predator populations. And, as younger people seek opportunities outside the villages, creating a lack of workforce to replenish the aging ranks of shepherds and herders, trekking into the mountains to graze animals takes an all the more heavy toll on an increasingly aging population. The combined pressure exerted by these factors becomes a strong incentive for villagers to sell their animals. But this situation constitutes an ethical dilemma for cattle herders.

The components that form the pastoralist landscape affect it to varying degrees. Animals are fundamental to people's engagement with this landscape and are, therefore, essential actors in how people develop a form of knowledge about the environment. This knowledge, as we have seen, is rich and diversified, ranging from the ability to navigate the landscape to that of observing changes in glaciers over time. But the image of the decaying seasonal settlement in

the high pasture is a vivid representation of the impoverishement of that knowledge once animals are removed. Lastly, in the words of philosopher Edward S. Casey (1996:18), "Local knowledge is at one with lived experience […] To live is to live locally, and to know is first of all, to know the places one is in". As I have demonstrated in this chapter, the landscape as a lived experience and knowledge of Ladakh as a place have both been altered drastically over the past several decades, with consequences for how Ladakh as a place is known. The erosion of the agro-pastoralist landscape is also about the alteration of an embodied environmental ethics which is nourished through bodily engagement with the environment. In the next chapter, I will turn to some of the implications of these changes for people's relationship with glaciers.

Chapter 6
When Glaciers Vanish

To place one's trust in the snow peaks
Only to find one's small field parched by drought
Tibetan Proverb

The white lioness' homeland is the snow mountain.
If there's no snow mountain, how can she make a den for her cubs?
It's unheard of that the turquoise-maned snow lioness would
be seen wandering in the marketplace.
Epic of Gesar

A decade before the publication of his account of Tibetan history (see Chapter 5), Thubten Jigme Norbu, published his autobiography. Besides recalling his recognition as a reincarnated lama and the exile of Tibetans from their homeland, the book describes his childhood in Amdo, one of the three constituent regions of Tibet. As a child, the autobiography recounts, Thubten Jigme Norbu loved to climb onto the roof of his house, from where he had a perfect view of Kyeri, the glacier overlooking his natal village, Tengtser. The following passage shows that observing the glacier was an everyday practice for Thubten Jigme Norbu and his family, providing evidence of ethnoclimatological practices:

> Kyeri showed itself to us in many guises, and my father in particular knew how to interpret its moods. If you could see it very clearly in the mornings, with perhaps just a light pinkish hue on it, then you could expect a fine, sunny day. But if a large cloud happened to be settled like a hood over its peak then you had to expect rain. And if at sundown there was a bank of cloud before Kyeri then we carefully closed up all the holes over the kitchen and the stables and prepared ourselves for the approaching storm (Norbu and Harrer 1986:48-49).

He then continues and explains the intimate connection he and his family had with the ice summit:

> Kyeri means something like 'Mountain of Hapiness,' and for me it has certainly become the embodiment of a happy childhood. It was under Kyeri that I experienced the love of my parents and my brother and sister, that I rode our horses over the flower-dotted pastures, and accompanied the herdsman and his beasts. It was towards Kyeri that our prayers were directed, because Kyeri was the throne of our protective deity and bore his name. Throughout life the idea of terrestrial and heavenly happiness will always be connected with Kyeri. For me Kyeri has become the symbol of a full life (Norbu and Harrer 1986:49).

Devotion to Kyeri was a salient feature of life for the villagers of Tengster. A temple on the outskirts of the village was dedicated to the mountain peak and, each year, the fifth and sixth days of the sixth month[146] of the Tibetan calendar were devoted to the glacier and celebrated by pilgrimages. Reaching the glacier was a 3-day trek through uninhabited terrain. Thubten Jigme Norbu recalls that the adults would first go up to the foot of the glacier to burn incense and perform customary offerings (Norbu and Harrer 1986:49-50). Thus, for the people of Tengster, Kyeri was not only a site of ritual practices, but a central element of the phenomenological experience of the world.

More than a physical feature of the landscape and a source of water, glaciers are connected to cultural and historical processes as well as power relations in many communities living in their vicinity (Carey 2007; Orlove et al. 2008). Researchers have demonstrated that glaciers are integral to the worldviews of local populations, their significance reflected in a multitude of ritual practices and beliefs (Gagné et al. 2014). Moreover, as Wolf and Orlove (2008) have demonstrated in the American context, and Brugger et al. (2012) in the European context, conceptions of glaciers as sentient beings can cohabit with the predominating western rationalism. Overall, the literature shows that glaciers, as an element of the physical landscape,

[146] The sixth month of the lunar calendar would be in midsummer.

are subject to significant cultural framing. But the ascription of cultural attributes to glaciers does not preclude either the assessment of glaciers' physical processes or practical interventions. In fact, as I will demonstrate in the present chapter, ritual and empirical practices associated with glaciers were once complementary in Ladakh and this complementarity, I argue, was fundamental to the continuity of practical interventions meant to protect and grow glaciers.

I opened the present dissertation with a seeming paradox : how is it that, in the past, villagers used to carry out technical interventions that preserved local glaciers (in a practice I call "ice cultivation"), but that, now, these practices are no longer performed despite widespread recognition of glacier recession? The preceding chapters examined social changes that have taken place in Ladakh since the independence of India, offering some insights into the context in which traditional ice cultivation in Ladakh has been abandoned: on the one hand, the economic restructuring of the region has significantly contributed to undermine community cohesion; on the other, it has altered the extent of engagement with the environment, both ritually and practically. Community cohesion and engagement with the environment were in the past central to glacier practices: cohesion enabled the mobilization of the workforce needed to accomplish the necessary physical tasks, while engagement enabled the monitoring of glaciers' movements and the reiteration of their primary role in the physical reproduction of Ladakhi society.

But the abandonment of traditional ice cultivation practices also needs to be assessed in the light of local cosmology. I argue that ice cultivation, as a technical activity, was the product of

an amalgam between lay and doctrinal framings of glaciers, which were both components of glacier practices. The cosmological construction of glaciers through ritual practices and practical interaction with them were complementary, reflecting the integration of the religous, social, cultural, and natural worlds in Ladakh, as well as the Tibetan Buddhist cosmology's principle of the reciprocity between humans and the natural world, as mediated by a various local deities. As I aim to demonstrate, the dissociation of these worlds under the influence of the state and the growing estrangement of Ladakhis from the environment both contribute to alter landscape practices.

In order to illustrate how local cosmology once informed glacier practices and how recent changes in Ladakh have affected this relationship, I examine four distinct types of glacier practices. The first two are more closely linked with the past: folkloric celebrations and glacier cultivation. I will continue my discussion of glacier-related ritual practices, begun in Chapter 4, in particular folkloric marriage songs and betrothal ceremonies, before examining ancestral regional glacier cultivation practice. Glacier-related practices pertaining to the ritual and the symbolic co-existed with practical activities aimed at nurturing glaciers. In other words, glaciers were recognized both as sacred and as physical elements that humans could alter through material interventions. The other two type of practices are more closely linked to the present: climate change narratives and artificial glacier construction. I will discuss climate change narratives and empirical observations of glacier recession, highlighting how disconnection from the environment hinders not only the observation of glaciers, but also the preservation of narratives inscribed in the landscape that appeal to cultural notions of morality. These narratives, I argue, were crucial to the periodic reinforcement of the order of

things by calling on notions of environment-related morality. Finally, I examine the challenges that surround the construction and maintenance of artificial glaciers, a geo-engineering practice of ice cultivation that has garnered increasing attention in recent years. I also discuss the failure of village-level ice cultivation practices in light of the decline of community cohesion and the dissipating complementarity of ritual and empirical glacier practices.

Four Glacier Practices

I. *Sacralized Glaciers: Ritual and Order*

The maker of myself was my mother
The maker of white hills is snow
Tibetan Proverb

Are empirical activities the only way to know the environment? In his discussion on perception of the landscapes, Ingold maintains that:

> Conventional anthropological interpretation tends to range, on two sides of a dichotomy, peoples' practical-technical interaction with environmental resources in the context of subsistence activities, and their mytho-religious or cosmological construction of the environment in the context of ritual and ceremony. […] My argument is that the differences between the activities of hunting and gathering, on the one hand, and singing, storytelling and the narration of myth on the other, cannot be accommodated within the terms of a dichotomy between the material and the mental, between ecological interactions *in* nature and cultural constructions *of* nature. On the contrary, both sets of activities are, in the first place, ways of dwelling. The latter […] amount not to a metaphorical representation of the world, but to a form of poetic involvement. But it is no different with the activities of hunting and gathering, which entail the same attentive engagement with the environment, and the same exploratory quest for knowledge. In hunting and gathering, as in singing and storytelling, the world 'opens out' to people. (Ingold 2000:56-57, emphasis in the original)

For Ingold, the cultural construction of nature through different types of narratives is an activity inscribed in the process of dwelling, which he understands as a relational and experiential processs through which people configure, both concretely and imaginatively, their surrounding environment during the course of their everyday life activities. In the following section, I use Ingold's reflection as a starting point from which to examine Ladakhi folklore songs as a form of landscape practice.

In Chapter 4, we saw that Ladakhi ritual practices in Tingmosgang village reflect the cultural construction of a genealogy that links glaciers and people, in which the glacier is the paternal figure and the villagers its children. Returning to this discussion, I examine traditional marriage songs from Indo-Tibetan and Ladakhi Buddhist communities. The songs are replete with glacier imagery and, although they do not necessarily talk explicitly about a filial connection between glaciers and people, they do portray glaciers as fulfilling a similar protective and life-giving role. In Ladakhi and Tibetan Buddhist folklore, glaciers are associated with fertility and depicted as patrons of human communities. The prevalence of glacier imagery in marriage songs, in particular, is highly significant. In marriage-related rituals, people acknowledge their subordination to the elements of the physical landscape and the forces that animate them, reiterating the crucial role the ice peaks play in ensuring fertility and, thus, the continuity of the community.

Analyzing the practice of memorial potlatch in a Tinglit community in the North American northwest, Thornton (2008:174) states that ritual is perhaps "the ultimate human emplacement structure [and] [m]ore than any other human institution […] reflects and shapes

the order of things". Thus, continues Thornton, "In ritual the cognitive, social and material elements of human existence are combined and fused in powerful, participatory and symbolic means". The study of rituals has a long pedigree in anthropology and Victor Turner has been one of the most notable proponents of ritual theory. Turner (1969) sees rituals as moments during which *communitas* prevails, a concept he uses to designate powerful feelings of social togetherness and belonging, during which people stand together "outside society" during a temporary liminal phase, a process which in turn strengthens society. In generating a powerful feeling of togetherness in a ritual context that simultaneously emphasizes fertility and the perpetuation of society, folkloric marriage songs that evoke glacier imagery reiterate the order of things within the context of communities living under the patronage of glaciers.

Written sources on folklore songs performed in the Indian Himalayan belt are limited. In addition, the performance of these songs during various rites is on the wane. Italian Tibetologist Giuseppe Tucci (1966) reports a song sung during the new year festival of Dralang in the village of Poo, in the district of Kinnaur in Himachal Pradesh state, on the India-Tibet border. Deemed to ensure prosperity, as well as produce and renew happiness (*skyd*), in the coming year, the festival and songs were connected with fertility rites and betrothal ceremonies, incorporating many elements of marriage songs (Tucci 1966:61). Moreover, the festival was said to gather not only participants from the lay community, but also the gods protecting the territory. Visiting Poo in 1933, Tucci found a manuscript[147] of song lyrics that overall strongly emphasized the dependence of the community on natural forces. The festival is an invocation of blessing meant to propitiate the sun, the moon, the sky, and the mountains

[147] Tucci does not mention the age of the manuscript.

so that prosperity and happiness may grace the entire community. References to glaciers recur throughout the songs. The following excerpt, for example, conveys a strong link between the behaviour of glaciers and the conduct of the laity, who are warned not to vex the protector of the glaciers:

> Worship; worship to the *gñan*[148] of the white glaciers.
> Worship; the white glaciers be not irritated in their mind.
> When they are not irritated, they do not turn away their head (from us)
> If their head is not turned away (from us), their face does not change
> (Tucci 1966:96)

The glacier failing to provide water because its deity has been uspet is reminiscent of the *gzhi-bdag* of Tingmosgang described in Chapter 4. In 1933, when Tucci visited Poo, the festival was already reduced from its former complexity to a dance and an occasion for amusement, according to elders; "it is quite possible", Tucci lamented years later, "that these songs have altogether disappeared" (1966:70).

Samuel Ribbach, a German Moravian Church missionary, settled in Khaltse, in Ladakh, where he worked between 1906 and 1913. His volume *Culture and Society in Ladakh*, originally published in German, in 1940, and translated into English only in 1986, describes local betrothal and marriage ceremonies in elaborate detail. Ribbach relates a "door song" *(sgo lu)*, a form of singing contest between two groups, that forms part of the elaborate wedding ceremony: five of the groom's friends form a group called *nyao-pa* (witnesses) and come to "purchase" the bride; in response, the bride's party, barricaded inside her house, ask the *nyao-pa* for proof of their identity. The *nyao-pa*, explains, Ribbach:

[148] Stein (1983:204) translates *gñan* as "sacred" and "powerful".

> claimed to be the sons of the gods of the high glacial mountains. The people of the house were suspicious. According to them no one could escape from that kingdom because it is guarded in all four heavenly directions (above, below, on the right and on left) by four female animals. The guards are the white lioness with the turquoise mane (*senge dkar-mo gyu-ral-can*) above on the glacier, Goldeye the fish (*nya-mo gser-mig*) below in the glacial stream, the queen of the wild birds (*bya-rgyal rgod-mo*) on the cliffs to the right and the giant tigress (*rgya-stag k'ra-mo*) in the sandalwood forest to the left (Ribbach 1985: 65-66).

According to ethnomusicologist Noé Dinnerstein (2013b:74), the passage above reflects how "people envision themselves situated in a matrix of the natural and supernatural world, with special guardians presiding over the cardinal directions", a commonality of many religions in the region[149]. The white lioness with the turquoise mane (see Figure 23) to which the passage refers is one of the mythical beasts of old Tibetan mythology. Authors have variously described her as the "deity of the glaciers" (Tucci 1966:56), "a personification of the glacier and a vehicle of the queen of heaven" (Ribbach 1986:105), and a symbol of the glacier, whose milk is the "glacier water, regarded as a medicine of long life" (Stein 1972:218). In keeping guard over the glacier, the white lioness protects the human community.

Figure 23. *The white lioness with turquoise mane (Source: Wikimedia Commons)*

[149] Kapstein (2006:8-9) reports a poem attributed to Milarepa, a celebrated Tibetan yogi and poets, and which uses the same imagery.

In a highly valuable conservation effort, Dinnerstein (2013a, 2013b) has recently documented several Ladakhi songs, many of which make reference to glaciers, snowy peaks, and the white lioness[150]. The following is an extract from a song entitled *mda' dar gyi glu* or *Ceremonial Arrow*[151]:

> See how many good dreams there now are.
> See how many good dreams of good days there now are.
> See boy, yon beloved snow mountain.
> See upon that snow mountain a great lion proudly posing.
> (Dinnerstein 2013a:221)

Here, the beloved snow mountain, the dwelling of the snow lion, corresponds to pleasant dreams of good days: there is an instricate link between the snow mountain and prosperity.

Often the purview of village song specialists, wedding songs (*bagston lu*), Dinnerstein (2013a:63-67) explains, are a window onto the laity's traditional worldview. Intermingling pre-Buddhist and Buddhist cosmology, these songs' imagery fuses element of high and small traditions of Buddhism in Ladakh[152]. Although many of these songs are strongly influenced by Buddhist liturgy, as they invoke various blessings bestowed on participants, it should be noted that marriage is not a religious sacrament in Buddhism. Nevertheless, as Stein suggests, the songs may have played a function akin to religion in the past, as has been noted for other components of Ladakhi folklore. Stein (1972:191-192) explains that historians of Tibet who emphasize the importance of Bon religion during the pre-Buddhist, legendary period of the

[150] The long, sustained effort by Ladakhi scholar Tashi Rabgias (2007, 2006, 1970-2003, 2000; see also Shakspo 2012) to write down Ladakhi songs has greatly enriched a previosuly thin repertoire, which had remained essentailly unchanged since the contributions of Francke (1901, 1902) and (Ribbach 1985) in the early 20th century. Ethnomusicologist Noé Dinnerstein (2013a, 2013b) has recently made available some of Rabgais' work in English.

[151] The arrow is an important symbol in traditional Ladakhi marriage ceremonies; for example, an arrow meant to bring good fortune is placed in the shrine room of the bride's new household when she first arrives.

[152] See also Leavitt (1992) for an illuminating discussion on high tradition and regionalism in South Asian scholarship.

kings Nyatri and Pude Kunggyel, described Tibet as being "protected (i.e. ruled) by the Bonpos, the storytellers and the singers". In passing on such elements of oral culture as proverbs, riddles, family histories, legends and other lore, singers and storytellers likely performed functions parallel to those of priests (*bonpos*). This oral culture must have constituted what Stein refers to as the "religion of men" (*mi-chos*), which is distinct from the "religion of the gods" (*lha-chos*), that is Bon and, later, Buddhism. Folklore, therefore, is a form of secular religion or, in other words, "tradition [is] the nameless religion" (Stein 1972:165; 191-229). "The few examples of 'religion of men' that have come down to us under this name are merely wise saws, told by the old men of the clan" Stein (1972:192) goes on to explain, "and always uttered in a poetic style characterized by the use of metaphors, clichés and proverbial sayings".

A key dimension of the religion of men for our current discussion on cultural representations of glaciers is that such adages, according to Stein, "also take account of religious beliefs, however; though without separating them from the code of social behaviour" (Stein 1972:192). Strongly imprinted with morality, the religion of man had a parallel function to that of religion, Stein suggests, and some deities of *mi-chos* are found in *lha-chos*, albeit under different names. In addition, the oral recitation of lore reinforces the importance of the wisdom of elders and "lends its sanction to the social and world order, the structure of the environment and that of the group inhabiting it"; this had a protective function, akin to religion, as recitation was a religious act "necessary for upholding the order of the world and society" (Stein 1972:198).

Rituals have a less salient presence in people's lives today, as discussed in Chapter 4, and my discussions with elders and professional signers strongly suggest that the survival of folklore

songs is threatened by the lack of transmission between generations. These folklore songs are strongly infused with an environment-oriented, quasi-religious morality. If in seeking to recreate a primordial order, rituals are a form of naturalization of ordering convention (Rappaport 1999:164), in many ways, folklore songs reiterate one of the fundamental dispositions of Ladakhi society: that human beings live under the patronage of glaciers and the benevolence of the deities associated with them and which provide life-giving water. Moreover, returning to Ingold's reflection that songs and rituals are, like practical activities, a way to engage with the environment, folkloric songs and rituals can be seen as a way to poetically engage with the world and for a group to inscribe its identity into the landscape: glaciers are a fundamental aspect of the Ladakhi world order and their well-being equates with the prosperity and happiness of the community, including its fertility and, thus, its survival. Because glaciers are sacralized through ritual processes that serve to reinforce feelings of community cohesion and harmony, it is not surprising that their deterioration is seen to represent the decay of community values.

II. *Intimate Glaciers: Cultivating Sacred Ice*

One of my very first informants in Ladakh was an octogenarian named Tsering Tashi. He lived in Hemis Shukpachan village, where he is known as Pentse *meme*, the father of Pentsa house. When Pema and I met Pentse *meme* he was sitting outside on a mat under the warmth of the afternoon sun. He had with him all he needed to spend a pleasant day: a prayer wheel, a thermos of tea, and a warm blanket. Pema, who proved to have a particular talent for finding people "who would have nice stories to share" as he often put it, had spotted Pentse *meme* from

the path as we walked past his house. Our meeting with Pentse *meme* led to recurring visits and hours of recorded interviews.

Pentse *meme*'s first observation about the changing environment was how much Shali Kangri, the glacier of his village, had receded over the years. He told me that in the past villagers would trek to Shali Kangri with bags of charcoal, which they spread on the glacier ice in an effort to ensure its regeneration. Pentse *meme* had never witnessed the practice, but remembered seeing elders leaving for the mountains with sacks filled with charcoal. Intrigued by his account of this practice, I asked every person I met during my stay if they knew of this custom. The details I collected in this manner on glacier cultivation are sparse, but informative. Many people in the Sham Valley, elders in particular, were aware of the practice, either because they had heard older people talking about it or because, like Pentse *meme*, they had once seen villagers leaving for the glacier carrying bags of charcoal. Only two of my informants had seen the practice performed, but they could not provide many details, as both were well above 80 years in age and had witnessed the events at a very young age. All described the practice as a means to grow and preserve glaciers. As mentioned in Chapter 4, oral history holds that one of the glaciers feeding the eastern stream in Tingmosgang village was cultivated by the villagers by putting charcoal on an already existing small size glacier. According to my informants, the charcoal would help to make the snow stick to the ice, creating moisture which generates more ice as winter sets in. Tingmosgang is the sole village where people spoke of "creating a new glacier", perhaps because the glacier was initially small in size. In other places, elders spoke rather of applying charcoal as a means of preserving or growing existing glaciers.

While factual details on the history of the practice in Ladakh may be scarce, information on glacier grafting practices in Baltistan, sheds light on practices of glacier cultivation in the region. The earliest documented reference to glacier growing in Pakistan is attributed to British colonial administrator D. L. R. Lorimer, who observed it in Baltistan in the 1920s[153]. Buddruss (1993:79) explains that Shina[154] speakers in the region talk of the cultivation of glaciers as "to cause ice to sit", in the sense of "to remain". In his analysis of a text written in the Shina language[155], Buddruss (1993:78-80) also reports the use of charcoal, in this case put into a ditch and layered with gourds of water, ice, and straw, the entire assemblage then buried in the ground. Ingvar Nørstegård Tveiten (2007), for his part, provides a comprehensive study of glacier grafting in Baltistan, where he conducted research among glacier growers. His findings are similar to those of Buddruss, and shed light on what the practice may have involved in Ladakh (see also Faizi 2007). Tveiten reports that in local belief ice can be either male or female: male ice is covered with debris (stones, soil) and is characterized by low to absent movements, while female ice is whiter, grows more quickly, and yields more water. According to the glacier growers Tveiten interviewed, it is important to have ice of both sexes in order to grow a glacier. Glaciers are cultivated by adding female ice to male ice found in ice fields; villagers bring blocks of female ice and gourds of water to glacier sites. Once the ice and water have been applied, the area is insulated with charcoal, sawdust, pieces of cloth, and wheat husks or nutshells. Snowmelt flowing into the grafted glacier also helps it grow, while

[153] As Buddruss (1993:70-78) reports, German ethnologist Irmtraud Müller-Stellrecht (1979), in her work on D. L. R. Lorimer, cited a thesis by Professor Israr-Ud-Din, entitled "A Social Geography of Chitral State" (1960), which I could not access, describing a similar practice in Chitral, Pakistan: snow was mixed with salt before being deposited in a shaded area, producing ice accumulation after a certain time.
[154] Shina, an Indo-Aryan language, is spoken by the Shina people in Gilgit-Baltistan.
[155] Buddruss does not mention the age of the text.

pockets of cold air between the various layers of material ensure adeqaute insulation. Using these methods, a self-sustaining glacier measuring approxinmately a dozen of meters across emerges within four years. The result is more an ice area than a glacier in the conventional sense, but, according to villagers, it serves its function efficiently, increasing the flow of water available for irrigation, which enables them to cultivate more land.

The potential for such small ice formations to make any measurable improvements in agricultural water supplies remains open to discussion. For the purposes of the present discussion, it will suffice to note that Tveiten agrees with Kenneth Hewitt, a glaciologist who witnessed glacier grafting in Baltistan in the early 1960s, that the social values of glacier growing are significant, since it contributes to appease communal anxiety during periods of climatic stress (Douglas 2008:39). Whether the former practice of glacier cultivation in the Sham Valley was similar to those observed by Tveiten and Hewitt in Baltistan is likely to remain unanswered in detail, but it is reasonable to assume that such practices did share similarities across the region. Mentions of the use of charcoal in both Baltistan and Ladakh strengthen this assumption and, additionally, confirms that the practice served practical, rather than strictly religious, purposes, in contrast to the ritual described by Thubten Jigme Norbu in his village of Amdo. Importantly, as well, the practice was instrinsically communal. As the accounts of glacier grafting in Baltistan show, the practice requires community mobilization; Ladakhi elders, as well, speak of glacier cultivation as something that required the participation of the community.

The two glaciers practices examined above reveal that glacier related practices that pertain to the ritual and symbolic domain used to co-exist in Ladakh with practical activities, like glacier cultivation, which is based on empirical observation of natural process. The available information, in addition, suggests that glacier cultivation was not directed by any state authority, which, at the time of Dogra rule, in any case exhibited little interest in the livelihood of the local population beyond taxation purposes. Rather, these practices were the result of communal arrangements and based on observations of glacier change. In lieu of an authority, the motivating factor was the recognition of the need to preserve glaciers for the continuity of the community, awareness that was also reinforced by folkloric songs and rituals that emphasized a reciproocity and genealogy between humans and glaciers. Salick and Byg (2012) explain that the Tibetan Buddhist perspective, marked by belief in deities who dwell in a phenomenal sphere organized into a single "ritual cosmos" and ritually acknowledged by humans inhabiting the mundane world, coexists with the acceptance of at least some of the principles of science (see also Samuel 1993). Morever, acknowledging the Buddhist prinicple of reciprocity and interdependance between humanity, nature, and deities is key to understanding that in Ladakh glaciers are subject to supernatural influences as much as to natural processes.

III. *Receding Glaciers: Climate Change Narratives*

An old dzo may have no strength
But he knows the road better
Tibetan Proverb

On a warm summer afternoon in Hemis Shukpachan village, *ani* Dolma, her mother, and her granddaughter were shelling peas in the sun, on the terrace next to their house. The end of

summer was approaching and preparations for winter were already well underway. We had come to meet with *aba* Puntsok, a man in his mid-70s, in order to rent two of his horses for our trek to Shali Kangri, the local glacier, the following week. During our conversations, Pentse *meme* spoke of Shali Kangri and the mountains with such a great passion and with intense nostalgia. Many time he said he would have loved to trek with us to the glacier; unfortunately, as he explained, he was now too old to venture in the mountains. We had thus promised Pentse *meme* we would visit the glacier in summer and bring him back pictures of the *phu* and the ice summit.

Soon after our arrival, Stanzin, a 20-year-old man, joined us. Like many young Ladakhis, Stanzin had been residing for several years in Jammu, the state capital, where he first attended college, before enrolling in agricultural science studies at university. He was visiting his home village during a break in studies and seemed quite eager to reconnect with village life. We sat there for some time while waiting for *aba* Puntsok. People were chatting and making jokes, passers-by joining in, slowly increasing the size of our group. When I shared my interest for going on a trek to see Shali Kangri, *meme* Smanla, an old man who was going to the mountains every day with his cattle, warned me that it was going to be a difficult trek, although a feasible one-day round trip. Still, he cautioned, I should perhaps consider planning for two days. However, he added, "the glacier is not as it was, it is rather really small today and here is nothing much to see there". This shifted the discussion to the question of recent changes in the glaciers of Ladakh. At one point, an old woman stopped by, a shovel in her hand. She had just finished watering her field, which in Ladakh means controlling the flow of water from the *yuras*, the small irrigation channels that connect to the main stream. The woman complained

about the lack of water in the stream today: "I don't know what is wrong with the water these days", she said. The conversation was marked by a series of observations on environmental changes that I heard throughout my stay in Ladakh. In Hemis Shukpachan, like in all of the villages in the Sham Valley where I conducted my research, farmers reported increasing water supply difficulties in their fields. But the situation can differ significantly between villages and on whether a field is located upstream or downstream, the latter being generally more negatively affected by shortages. Indeed, issues of water scarcity need to be considered alongside questions of water management, which, as several authors have demonstrated, is closely linked to questions of power at the local level.

"These changes are due to global warming", said Stanzin, the young student. He said this in English, as there are no terms in the Ladakhi lexicon to express the concept. Throughout my fieldwork, in fact, only a very marginal number of elders mentioned the concepts of "global warming" and "climate change" during our discussions and when they did, they used the English terms. While most of the younger generations of Ladakh are relatively familiar with the scientific terms for changes in the local environment, elders in villages have their own distinct view of these changes. "What are you talking about?", asked *ani* Dolma in reply, "all this is occurring because people have become bad these days". Stanzin was obviously perplexed by this comment, but remained silent. "Look at what people are doing today, always running after money, wanting to make more money and not taking care of things. Yes, people have become bad" she added, "and that is why there is no more snow; the glaciers are going because of that".

The perception that glacier recession is a corollary of a decaying moral order has been documented elsewhere, as well (see Bolin 2009; Drew 2012a; Orlove 2009; Rhoades et al. 2008). The contrast between *ani* Dolma's and Stanzin's perspectives opposed two differently informed views on environmental changes. As I discovered during my fieldwork, the view of experts does not resonate with Ladakhi elders. Recently, Marin and Berkes (2013) have addressed the question of the interaction between media representations and local perceptions of climate change. They found that mainstream media tend not to influence local views, because of the significant differences between the media's discourse on climate change, framed in terms detached from local realities and focused on a narrow range of variables, and local observations, which tend to be holistic. Similarly, such representations do not resonate with Ladakhi elders, whose outlook on the environement is strongly defined by notions of morality. This is not to say that media discourses do not penetrate into Ladakhi villages. I often saw elders listening to talk radio, on which some shows, like those produced by the Ladakh Ecological Development Group, a local NGO, discuss environmental changes in terms of scientific concepts. Elders, instead, tend to articulate meteorological changes as well as changes in the glaciers as narratives rooted in more complex than media discourses (see also Drew 2012b:212).

Like *ani* Dolma and the people who gathered on her terrace for our impromptu discussion, the vast majority of the Ladakhi villagers I interviewed commented on how they have seen glaciers change within their lifetime. They also agreed on changing meteorological conditions, with warmer temperatures, in summer as much as in winter, and less snow in winter, observations that are corroborated with official meteorological data analysis (see Shaheen et al. 2013).

Reduced snowfall endangers not only for the regeneration of glaciers: thawing snow from the surrounding mountains is critical to feed streams early in the farming season. Rainfall is also said to have become both scarce and more erratic, with untimely precipitations. The contribution of rainfall to agriculture in Ladakh is in any case marginal, but can at times provide a much-needed alternate source to irrigation. As mentioned above, the impacts of glacier recession and reduced precipitation are not experienced equally by everyone within a given village and, more broadly, some villages are more affected than others, although many farmers attribute such disparities to differences in the size of glaciers from one village to another.

Crate (2009:146) observes that most farmers who practice subsistence agriculture are ethnoclimatologists by definition – in other words, they possess empirical knowledge of climate and articulate it in terms other than those used by the meteorological and climate sciences. In a place like Ladakh, where people's lives are strongly affected by the regular cycle of the seasons and where a successful farming season has long been the sole way to survive through winter, insights into climate have always had a great importance. Ladakhis know how to read the sky and make forecasts by observing various phenomena, such as wind and fog, or by observing cloud activity in the mountains, as evoked in Thubten Jigme Norbu's recollections at the beginning of the present chapter. Yet, although Ladakhis make meteorological predictions and observations in terms akin to scientfic meteorological knowledge, there is a fundamental epistemological difference between the two perspectives on weather and its related phenomena. As Huber and Pederson (1997:577) point out in the context of Tibet, "modern meteorology understands the weather as a system of global, quantified interrelationships,

whereas traditional Tibetan knowledge about the weather relates it to a system of local, qualitative interrelationships of humans and spirit powers". It is thus a combination of meteorological observations and expert knowledge on the behavior of various spirits that enabled ritual practitioners to perform convincing weather-making ceremonies, as likely was once the case in Tingmosgang (see Chapter 4; see also Nebesky-Wojkowitz 1956a, Chapter 24; 1956b:240-244).

Hence, for many Buddhist Ladakhis, science and religion are two distinct modes of thought that allow them to decipher climatic conditions. In Ladakhi elders' worldview, weather can be observed and anticipated, but remains closely linked to human morality. In the words of one of my informants: "The times have become bad because the people have changed and so the weather is also affected". In conducting fieldwork, I found that this dual, complementary outlook on the environment is held not only by farmers, who have been closely connected to village life and rituals throughout their lives, but also by people of the middle-aged generation retired from professions such as the military and the civil service, as well as among teachers.

Thus, for Ladakhis, contemporary materialistic views of cause and effect cannot alone fully account for environmental changes. Meteorological conditions, the state of glaciers, and environmental conditions in general are, in this view, an outcome of the nature of the connection between humans and spirits, how the principle of interdependence between both realms is acknowledged and respected in everyday actions, and the state of moral atttitude. Hence, as Salick and Byg (2012:453) note, "changes in the climate are linked both physically and metaphysically with fertility of the land and, arguably, the viability of Tibetan

communities". This perspective correlates with my observations in the field: Ladakhi elders see the depletion of the landscape as the result of a depletion within the community. This, far more than scientific perspectives, is the underpinning of the traditional Ladakhi perspective on changes in climate. Yet it is only one paradigm among those present in Ladakh today, as exemplified by Stanzin's discourse on global warming, above.

Thus, on that afternoon in Hemis Shukpachan, as our group continued its conversations n climatic and environmental changes in Ladakh and grew to include a dozen participants of all ages, *aba* Puntsok finally arrived. We sat together and laid out the plans for our trek the following week. Stanzin listened intently. Excited by the prospect of our excursion and interested in our discussion, he decided to join us.

* * *

One week later, we set out for our trek on horseback. *Aba* Puntsok arrived at our host family's home early in the morning, on foot, with three horses in tow: one for me, one for my Canadian friend who was in Ladakh for a 2-week visit, and a colt just a few months old that was going to receive its first training in high mountain trekking. A mountain guide, local tradition holds, always treks on foot, even when leading horses and riders. Pema, incapable of venturing to heights above 4,500 meters, stayed behind; as I found out, even Ladakhis can experience altitude sickness. We waited for Stanzin, but he never arrived. Instead, his father, a man in his early 50s, who spent his childhood in the mountains, joined us. It appeared that Stanzin's mother did not like the idea of her son going to the glacier, as she was worried that

his "body would not be strong enough" for the climb. Unlike his father, he had never been herding in the mountains. The effects of acute mountain sickness can be undoubtedly quite dramatic. I felt sorry for Stanzin, as it seemed quite obvious that he had been looking forward to the trip and, moreover, because this surely was a setback for his resolve to reconnect with his natal village. As I was going to realize, however, his mother was quite right that climbing to the glacier is no easy feat for the uninitiated.

We packed lunch in our backpacks and hit the trail. Provisions that in the past would have consisted of *kholak* now featured instant ramen noodles; food of poor nutritional quality has made inroads into the Ladakhi diet. Luckily, we also had chapatti and omelettes to provide us with precious calories. As the glacier was some 12 kilometers from the village, we had just enough time to make the round trip before sunset. Having heard much about packs of *kishang* roaming the area, I rather preferred not to sleep in the mountains.

As we started our ascent, we met *meme* Smanla who was setting out on his daily climb to the mountains with his animals. Like *aba* Stanzin in Likir, he was seemingly one of the last people in the village to make the daily trek to the *phu*. After he disappeared from view, we did not encounter another human being during our day in the mountains.

Our group soon passed next to an oddly shaped rock, next to which was erected a *tarchok*, a vertical prayer flag mounted on a staff. According to a local tale, the rock bears the bodily imprint of the second Buddha, Guru Padmasambhava, also known as Guru Rinpoche, the founder of Tibetan Buddhism. He is said to have meditated here when he passed through Ladakh on his way to Tibet, in the 7th century (Shakspo 2012:237) (see Figure 24). In fact,

stones bearing the purported imprint of Guru Rinpoche recur on many sites throughout Ladakh, marked with similar prayers flags.

Figure 24. *Stone bearing the purpoted imprint of Guru Rinpoche in Hemis Shukpachan village (photo by author)*

As we climbed uphill, the colt lagged behind. The trek seemed difficult for the young animal. Further along, our little group reached a section of the village called *komnyak*. On the west side of the valley, a long, narrow, flat-topped hill overlooks the village. The landscape feature is known as *konka talkan*, literally "place above made flat". On its highest point, stands a *chorten* made of mud and stones. It is modest by the standards of many of the *chorten* built today (see Figure 25). It is said that in the time of the "*abi meme*", or generations ago, a disastrous flood (*chu lok*) occurred, leaving behind massive boulders. In the story, the force of this flood raised

the soil to create a sharp demarcation in the landscape or the *konka talkan*. As mentionned, floods are considered by Ladakhis to be a form of retribution, usually sent by chthonic spirits upset by a human lack of morality and wrongful behaviors. After the flood, the story continues, the villagers sought advice from high religious officials in Tibet, who told them to build a *chorten* on the *konka talkan* in order to prevent further disasters. The ancient *chorten* is quite dilapidated today. Two men from Hemis Shukpachan told me they had made efforts to restore the monument, but lamented that no other villagers helped, because "nowadays, the children don't do anything". As discussed in Chapter 2, the construction of religious structures in order to tame landscape forces is a historical facet of Tibetan Buddhism[156].

Figure 25. *Ancient chorten built on the konka talkan of Hemis Shukpachan village (photo by author)*

[156] Butcher (2013a) notes a multiplication of the building of *chorten* to prevent inundations after the destructive flood of 2010 that ravaged Ladakh.

Our horseback excusrion gave me a feeling of déjà vu: we passed a succession of abandoned farmlands and deserted *pullu* sites, just as I had seen in Likir a few weeks before. After reaching a point that offered a stunning view of the village, the settlement slowly disappeared from sight as our horses climbed higher. The scenery was splendid. Travelling through this landscape, I understood the nostalgia for the mountains that Pentse *meme* had talked about down in the village. Moving through the mountains confers an immense sense of liberty, but also the impression of venturing into another world, where humans are at the mercy of nature, and the vastness of space has an unsettling effect.

As we steadily made our ascent, my head was spinning increasingly in the high altitude. I had experienced these effects only once before, when I first reached Ladakh at the beginning of my research stay. Even *aba* Puntsok seemed to be having a hard time, as he I could hear him trying to catch his breath. We arrived at a huge boulder on the eastern side of the valley. Our guides informed us that its name is Mi-Khatsa, literally: "the place where a man was caught". It is said that long ago, during the time of the kings, a hunter passing this spot saw a blue sheep standing on the boulder. He climbed to the top by stepping on lichen that had formed natural steps on the rock. But as the sheep ran down to escape, its hooves broke away the lichen, trapping the hunter on top. In order to give him the courage to jump down, villagers gathered around, dancing and drinking *chang*. The man eventually jumped off the rock, but died from the fall.

Authors have shown how people infuse places with meaning, from being evoked to assess individuals' moral shortcomings (Basso 1996), to being shaped by human morality and both

divine and royal power (Gold and Gujar 2002), to serving as the locus of social imagery recollected through storytelling (Stewart 1996). This literature reveals a profound human need to make sense of place; as people invest places with significance, those places become both metaphorically and metonymically tied to people's identity (Feld and Basso 1996). Place-names that act as cautionary tales like this one abound in the mountain of Ladakh (see also Dollfus and Labbal 2009b). Engaging with the landscape in Ladakh means delving into the sacred and encountering morality in its materialized form: for instance, narratives such as the one revolving around Mi-Khatsa are a reminder that killing animals is an immoral act that trangresses Buddhist ethic. Likewise, the *chorten* built to protect against floods – locally believed to be a form of retribution – is a reminder, inscribed in the landscape, of the consequences of communal sins. Yet, it is through engagement with place, through process of dwelling, that the corpus of narratives is developed, enacted and maintained. Disconnection from place, therefore, jeopardizes the continuity of these stories and, with it, the survival of a dimension of Ladakhi identity.

We next reached a place named Hyamar, after the color of the rocks, which have a rusty red hue. Ahead of us, a line of magnificient snow summits reached towards an azure blue sky. We stopped for some time as our horses seemed eager to graze on the local lichen. We let them feed and unpacked some of our own snacks. My GPS indicated that we had now reached above 4,500 meters. My head was spinning like a top. My lungs searched for air, despite my minimal physical effort since the outset of the trek. Surprisingly, my friend, who had arrived only a few days earlier, felt quite fine despite barely having any time to acclimatize to the high altitude. I admit, I resented her. I had been trekking these mountains for months and now, for

the first time, altitude sickness had me in its grip. I began to feel as if my head was stuffed with cotton wool. I was unable to eat. After a time, we resumed our way. I could barely keep my balance in the saddle on my horse. Ahead, I could see the summit of Shali Kangri, far off in the distance. Too unwell to continue, I had to give up. While my friend and Stanzin's father carried on towards Shali Kangri, I despondently made my descent back to the village with *aba* Puntsok (see Figure 26).

Figure 26. *Norbu (Stanzin's father) standing in front of Shali Kangri (photo by Hélène Lapierre-Messier)*

* * *

Figure 27. *Villagers looking at photographs of Shali Kangri (photo by author)*

Figure 28. *Pentse meme indicating how Shali Kangri has receded (photo by author)*

My friend and Stanzin's father came back to the village at the end of the day. We all gathered in the main room of our host family's house and looked at the pictures my friend had taken of Shali Kangri on my laptop. We were once again in a multigenerational group, that included elders and children (see Figure 27). Many people, like Stanzin, who had just joined us, were seeing the glacier of their village for the first time. When later we showed the pictures to other groups of villagers, all the former cattle herders asserted that Shali Kangri had significantly regressed since the last time they went to the mountains, which for many was over a decade ago. We also showed the pictures to Pentse *meme* who was, as was his habit, sitting outside under the sun. In the past, Pentse *meme* explained, there was a huge ice cave at the foot of the glacier, but it was gone now (see Figure 28). I asked him and his son, who had joined us, if they felt worried about the glacier vanishing: while his son explained that there was nothing to worry about for the moment, since the glacier was still of a substantial size (a reflection I had heard from other villagers, as well), Pentse meme remained silent. It was a scene evocative of the silence of Ladakhi elders in the face of their declining influence on the community, a scene I often witnessed during the course of my stay. Altogether, it seems that water shortages have not yet translated into an immediate concern for all, possibly because the impacts are offset by alternate sources of income than farming.

What saddened Pentse *meme* the most while looking at the photographs, however, was the fact that he had not been able to come to the mountains with us due to his old age. "If I could, I would have brought you there and I would have shown you all the paths in the mountains" he told Pema and myself, wistfully. I shared with him my discontent at not having gone as close to the glacier as I would have liked. "I warned you, some people have altitude problem (*lhapotse*) if

they go in one day" he said, laughing at me. Pentse *meme* had indeed cautioned me, as had *meme* Smanla, but I had not heeded their warnings. By contrast, Stanzin had followed his mother's advice and forgone the excursion. What disappointed me perhaps most of all, was the realization that after many months in Ladakh I had apparently not yet learned to be attentive to elders' wisdom. Later on, I came to realize, I had failed to accommodate local knowledge.

IV. *Building Glaciers: On The Idea of Timeless Places*

Without a tent pole there is no tent
Without society there is no achievement
Tibetan Proverb

Co-produced by the United Nations Development Program, the documentary *Revealed: The Himalayan Meltdown* (2011), examines the impacts of glacier recession in the Himalayas on the lives of people in Asia. The film considers various technological developments allowing people to adapt to a changing environment. It opens, however, with a narrator's voice, who tells viewers that "the people of Asia are […] harnessing determination, spirituality and science to adapt and survive in the face of Himalayan meltdown". The script, in this way, seems to idealize the capacity of local communities to bear the brunt of global level changes to which they hardly contributed.

At one point, the film brings us to Stakmo village, in Ladakh, where Chewang Norphel, a retired civil engineer, demonstrates his widely acclaimed artificial glaciers, created with his locally developed technology that comes to the rescue of farmers affected by the depletion of water resources[157]. According to my informants, water shortages are most prevalent during the

[157] The work of Chewang Norphel has inspired various other initiatives in Ladakh. One such very recent initiative is the "Ice Stupa artificial glacier", designed by Sonam Wangchuk, a mechanical engineer and charismatic public

ever-critical sowing season (April-May). Chewang Norphel's ingenious solution to the problem was to build artificial glaciers. These structures, which can be described as terraced ice fields are located above the villages and below the foothills. The artificial glaciers collect water through a system of channels and walls that efficiently draw in water from the surrounding area. Altogether, they are active during a four-month span of the year: most of the water accumulates in November, freezes as winter sets in, and starts to melt in early Spring as temperatures rise. Because they are built near the villages, lower than their natural counterparts, the artificial glaciers provide a timely and accessible water source for the sowing season (Shaheen et al. 2013) (see Figure 29).

Figure 29. *An artificial glacier in Nang village (photo by author)*

figure, locally known for his involvement in alternative education and the development of eco-friendly projects. Inspired by the work of Chewang Norphel, Sonam Wangchuk created his first ice *stupa* in 2014, storing 150,000 liters of water in a cone shape structure that resembles a *stupa* (*chorten*). Additionally, Sonam Wangchuk has successfully mobilized different social actors (religious, political, military, youths) and people of all generations to support the project and has appealed to the worldwide community to finance his project by creating a fundraising campaign on the American crowdfunding platform Indiegogo (see also: https://www.indiegogo.com/projects/ice-stupa-artificial-glaciers-of-ladakh and https://www.facebook.com/icestupa retrieved on March 20, 2015). See also Grossman (2012) for interventions on the Pastoruri glacier in Peru and Agrawala and van Aalst (2008) for interventions on the Mittelbergferner Glacier in the Austrian Alps.

Albeit it is likely an effective appeal to its target audience – policymakers and NGO representatives, as well as the general public – the film's depiction of "local knowledge as a means to adapt to environmental change" is not supported by Chewang Norphel's views on the management of these water structures at the community level. The following excerpt from an interview published in Reach Ladakh, a local newspaper, in 2013, is particularly evocative of the challenges of adaptation to climate change and of artificial glacier management:

> Q: What kind of challenges and problems do you face during the course of its [an artificial glacier] construction or afterwards?
>
> A: […] Funding agencies give money to cover the expenses incur in the construction of artificial glacier. The maintenance is responsibility of local villagers who are the beneficiaries. Since the villagers do not contribute in the project, their sense of ownership is missing. Most of the time, villagers fail to maintain and repair the structure when damaged and with time, it becomes ineffective. Our people are too dependent on government support system. They don't take initiative to mend the walls and repair the canal without receiving money for their work, even though they understand that they are benefiting from the artificial glacier yet they continue to wait for help. Agriculture is not the prime source of income and livelihood for some of the people and their interest in farming is getting less and less. Unless the villagers (beneficiaries) take personal interest, it is difficult to undertake a project, because it doesn't guarantees success.
>
> […]
>
> Q: How many artificial glaciers have you built so far? How many of them are in functioning state or being used?
>
> A: So far LNP [Leh Nutrition Project] has built 10 artificial glaciers, out of which only two are in good working conditions, which is quite sad and discouraging. They failed due to no maintenance from the villagers.[158]

Artificial glaciers require regular maintenance and must be prepared for the onset of winter each year, tasks that are the responsibility of villagers. According to Chewang Norphel, despite the substantial benefits of artificial glaciers, their sustainability is compromised by villagers'

[158]Reach Ladakh (May 4, 2013), also available online at: http://www.reachladakh.com/in-conversation-with-mr-chewang-norphel/1569.html (Accessed on March 20, 2015)

failure to mobilize in order to carry out the collective work of maintenance. The image of communities as depicted in the film *Revealed: The Himalayan Meltdown* is based on an idea of timeless place. As we have seen, however, Ladakh has undergone a number of important changes in recent decades. The consequences of these changes affect community bonds and, consequently, the potential for villagers to mobilize.

In the not very distant past, as we have seen, villagers were able to mobilize independently of authority in order to cultivate and preserve glaciers. Why is it that today, communities fail to act likewise? First, the pervasive intrusion of the state in the fabric of everyday life and other socio-economic changes in Ladakh discussed throughout the present dissertation have disrupted a number of patterns of village life, potentially contributing to the disappearance of such traditional practices as glacier cultivation that my informants have reported. Second, the depiction of communities as cohesive and prone to easily mobilize glosses over many criteria of social difference among community members. Recently, scholars interested in issues of climate change and resilience have come to incorporate the concept of indigenous knowledge into their analyses (Berkes et al. 2000; Carpenter et al. 2001; Couzin 2007). These authors argue that the involvement of local persepctive can be crucial to the implementation of development projects and measures necessary to adapt to a changing environment. There is however a consensus in the literature that participatory development and decentralized natural resource management must be considered with a view to communities' internal dynamics (see Cooke and Kothari 2001; Mosse 1997; Wiegandt 2008). Following this approach, the failure of artificial glacier maintenance at the community level in Ladakh must be considered in the light

of issues of out-migration, internal cohesion, and individual households' reliance on agriculture as opposed to other activities.

While the politics of water management provide a fruitful analytical perspective to examine these issues, questions of vulnerability and adaptation to climate change, which have been the object of recent studies are also informative. In both cases, it is important not to deviate into top-down appraisals of local communities which can work to obfuscate realities as they exist on the ground (see Orlove 2009). The specific question I wish to consider is: how is it that people have become estranged from glaciers with which they were closely connected until recently?

In a recent paper, Adger et al. (2009) argue that questions of ethics, knowledge, risk and culture, which are internal to societies, should be taken into account when examining the limits of societal adaptation to climate change. In particular, the authors postulate that "part of the order and structure of societies is designed to interact with the physical environment and any change in the physical environment will influence these structures as well as the larger social system", adding that the degree of this influence is "in accord with the proximity of a society to the natural environment" (Adger et al. 2009:348). In Chapter 1, I outlined how social organization in Ladakh was until recently intricately linked to modes of engagement with the environment. Following Adger et al.'s linking of the structure of societies to their interaction with the environment, I argue that the economic restructuring of Ladakh has contributed to alter local social organization and, consequently, the way people know the environment and engage with Ladakh as a place has become increasingly circumscribed. And,

as Ladakhis become increasingly estranged from the natural environment, changes in that environment are less perceptible to them.

In reconfiguring the household economy, the economic restructuring of Ladakh also contributes to limit people's perception of the impacts of climate change. Since agro-pastoralist activities are no longer the sole source of income for a growing number of households, Ladakhis interact less and less with their environment. As a result, environmental change, including glacier recession and its broader impacts, become less perceptible. For instance, both the impact of the generalized problem of drying natural springs (*chu mig*), which many villagers associate with the depletion of grazing areas, such as *spang*, and the desertification of the mountains is made less perceptible because fewer people cover less territory in the mountains with fewer animals than in the past. This calls to mind the perspective of the monk at the monastery of Tingmosgang, whom we met in Chapter 4, who told me that "modern people" tend to doubt the existence of spirits who are invisible to the human eye and, therefore, act in ways that create social and environmental imbalance. There is an analogy to be drawn here with how new economic opportunities are contributing to make the changes in the environment less visible to people. This should not lead us to conclude that people doubt the reality of these changes, but it can account for a certain indifference among some groups of people.

Recent discussions on climate change have focussed on the role of visibility in climate perception and communication (Li et al. 2011; Marx et al. 2007; Orlove et al 2008; Rudiak-Gould 2012; Weber 2006), and this case study of Ladakh contributes to this discussion by

establishing a correlation between a disconnection from the environement and adaptation. As Adger (2000) and others (Blaikie et al. 1994) have stressed, change in state and civil society institutions and cultural perceptions of risk are crucial determinants of social vulnerability to environmental risk. The case of the artificial glaciers and the noted apathy of villagers towards their maintenance, as discussed by Chewang Norphel, shows that Ladakh's changing social order, in which the state has replaced former community arrangements, should also be taken into account when considering adaptions to climate change. To a significant extent, the pervasive intervention of the state in everyday life in Ladakh and influence on various spheres of life has contributed to the dissolution of community arrangements. The frequent evocation by Ladakhi elders of a benevolent "Great Government" and "Great Hindustan", provides a window onto what Timothy Mitchell (1999:90) calls the "state effect" or the powerful and seemingly metaphysical effect of practices that render the structures of the state tangible". It is possible that confidence in a benevolent state, ever present in the structure and infrastructure of everyday life, nurtures feelings of security in the face of adversity, mitigating mobilization at the local level.

Last, in recent years, anthropologists have discussed the interface between climate change and culture in order to study a wealth of issues, such as resilience (see Crate et al. 2010; Roncoli et al. 2009) and resource management (see Orlove et al. 2008; Strauss 2009), as well as disasters and displacement (see Button 2010; Oliver-Smith and Shen 2009). This scholarship has stressed the importance of discussing environmental issues in light of societies' internal characteristics. We have seen that climatic disturbances are seen by many Ladakhis as a reflection of social morality. In the past, Ladakhis engaged in a range of both utilitarian and

ritual practices associated with glaciers. As an element of the natural environment, glaciers transcended the sphere of the sacred and the mundane, blurring boundaries between humans and nature assumed by scientific experts. In other words, glaciers reflected of a holistic worldview, which integrates the natural, cultural, and religious worlds. But the redefinition of Ladakh as a place after the independence of India has greatly contributed to the disentanglement of these worlds. While the disconnection from the environment and the ensuing alteration of local knowledge are major consequences of this process, what the case of the artificial glaciers tells us is that cultural conceptions of nature influence interaction with the environment. As Williams (1980) eloquently explains, ideas of nature are a window onto how we think of ourselves as a society and, therefore, how we act on nature. Hence, while the traditional Ladakhi outlook on the environment still survives in great part today, it is also clear that Western scientific epistemology is exerting an increasing influence on Ladakhi perspectives. O'Brien and Leichenko (2000) use the concept of "double exposure" to examine the compounded impacts of globalization and climate change on social groups, regions, and ecosystems. Extending this approach to our discussion, we may say that, Ladakh is undergoing the double exposure of rationalization (through state influence) and climate change: as state rationalization impacts human practices and arrangements and as climate change transforms the environment, the compounded impact of this double exposure has implications for communities' adaptation capacities. This brings me to a final observation: the sacred character of the landscape of Ladakh, including its natural elements such as glaciers, enacted through different ritual practices, must have acted as a form of authority that stimulated people to perform cultivation practices. In losing their sacred character, glaciers are losing their influence on Ladakhi communities.

Landscape of Morality: A Discussion

K: Why has the glacier receded?
TD: Because people have become selfish, ill-hearted. Nowadays, people are less fortunate, else why would the *kangri* deplete? Nowadays, there is not that much of snow in winter. For sure, people today are less fortunate. The *kangri* was enormous in those days.

Pentse *meme*, my informant introduced earlier, emphasized repeatedly during our conversations that life in the past was harsh and cruel, but that now, due to "the great government", everyone enjoyed luxury and leisure. His perspective needs undoubtedly to be understood in context. Life for many in Ladakh today remains quite austere, particularly, as we have seen, in winter. Most younger Ladakhis, in addition, would tend to disagree with the view held by elders that life in Ladakh today is all leisure for those of working age: working as seasonal laborers, wearing the Ladakh Scouts uniform to defend the territory, being posted in a remote corner of Ladakh to work for the state – these are all parts of younger Ladakhis' rugged reality. At the same time, Pentse *meme* insisted that despite hardships people were much happier in the past, a reflection that was also shared by many other infomants. This view of a harsher but happier past has been observed in other contexts in India, and, as some authors have argued, needs to be considered in light of eroding community and social values (see Gold and Gujar 2004; Wadley 1994). These perceptions take on various forms. According to many elders I spoke with in Ladakh, if there were frictions among villagers, for example, in the past matters would be settled openly, whereas today "people keep their anger inside". In their view, additionally, people were less selfish, money was a less central preoccupation, and people prayed solemnly in earnest devotion, rather than build ostentatious shrines for public display.

Another facet of elders' discourse about the past concerned their own place in the community and, although they did not always say so directly, it was evident that they felt that today their wisdom was disregarded and that they were made to feel like a burden on the younger generations. Paradoxically, thus, while the Indian state has introduced material comforts into Ladakhis' lives, through food subsidies, employment, and infrastructure development, it has simultaneously contributed to the steady erosion of the community fabric that once provided support, emotional comfort, and solace in the latter stages of life.

In her decadal study of Karimpur, a village in the Indian state of Uttar Pradesh, Susan S. Wadley examines various perspectives present in the community and perceptions of challenges brought about by education, urban employment, and migration, finding that changes in family relationships (in comparison with a prior paradigm of control by landlords and family heads) generated a sense of disorder. In Karimpur, the old paradigm of control was intricately linked to interrelations within the community, constituting a kind of mutual support network or what her informants defined as "love" among people. The old paradigm of power had generated a social ethic that was "a moral order based on long-term, enduring solidarity" (Wadley 1994:242). In a similar way, in Ladakh, poverty and exploitation in the past had generated a solidarity among villagers and fueled the emergence of a range of community arragements to respond to various religious and lay needs. Obviously, as with the case of Wadley's study, power and oppression was a salient feature at the village level and forms of past exploitatiojn have been discussed in Chapter 1. Yet community arrangements such as shared work and shared participation in rituals supported feelings of security and a sense of order; respecting

them and the community values with which they were associated was part of the moral paradigm.

As I have strived to show in this chapter, for Ladakhis this moral order is inscribed in the landscape. Through cultural processes and practices Feld and Basso (1996) tell us, places are "actively sensed" and "rendered meaningful". One way of rendering the landscape meaningful has been for Ladakhis to build shrines and other monuments in the hope of preventing floods, for instance, or to ascribe narratives to elements of the natural landscape. But the environmental state of a place, is also a way for Ladakhi to make sense of a place. A depleting landscape is analogous to a depleting community, where individualism triumphs over community values. In Ladakh, the landscape is filled with a pantheon of various sentient deities that respond to human morality and actions. A central means of expression of these chtonic and territorial deities is through climatic conditions, which impact the state of the environment. For many Ladakhis, a depleting landscape characterized by receding glaciers or drying mountains is seen as a direct reflection of people's morality. As Braun (2002:14) put it, "our images and ideas of nature do not simply reflect a preexisting reality, but, in important ways, constitute this reality for us. In other words, nature's 'social construction' refers to an *epistemological* condition as well as an *ontological* one" (emphasis in the original).

The landscape as a repository of moral order is, however, contingent on engagement with the environment. I have discussed how the popular media extend a sphere of influence on perceptions of climate change by disseminating knowledge about the environment that is based on an epistemology different from the traditional Buddhist Ladakhi cosmology.

Interactions with the environment also constitute a salient factor in climate change perception. As long as interaction with the environment is connected with practices based on the amalgamation of different worlds – natural, cultural, religious – like the erection of religious structures to tame the landscape, or the belief that a depleting environment is the result of displeased chtonic or territorial deities, engagement with the environment contributed to maintain these worlds integrated. In other words, local knowledge transmitted through generations is not only contingent on a connection with the environment but also on a certain continuity in a community's worldview. Without such continuity, the loss of cultural assests and people's alienation from the land impacts the perception of the environment. There is today in Ladakh a growing tension between two worldviews, one of which is based on an entanglement of the natural, cultural, and religious worlds, the other which is based on clear divisions between them. More than the dissemination of scientific perspectives on climate change, disconnection from the environment, I belive, is strongly contributing to the growing influence of the latter.

The social order as a component of the moral order is not only inscribed in the landscape, but also infuses folk songs and ritual practices. Because they are perceptually salient, as anthropologist Ben Orlove points out, glaciers play a special role in people's lives (Orlove, 2009; see also Orlove et al. 2008b). Earlier in this chapter, I surveyed marriage songs and bethrotal ceremonies to show that cultural representations of glaciers are ubiquitous in Ladakhi and Tibetan Buddhist folklore and, importantly, that they are linked to notions of fertility. This oral tradition communicates a local cosmology, which holds that people live under the patronage of benevolent glaciers that must be respected and shown gratitude. For

Ingold (2000:56), such songs and stories conduct the attention of the participants into the world so that "the boundaries between person and place, or between the self and the landscape, dissolve altogether". In stressing the centrality of glaciers for life in Ladakh, these songs amalgamated to ice cultivation practices. Glacier practices thus transcended the sacred and the profane. Cultural framings of glaciers can change over time (Strauss 2003), but changing social context can also alter interpretations of ritual glacier practices as Paerregaard (2013) has demonstrated in Peru, and as we have seen with the *skyin jug* ritual in Chapter 4. The loss of cultural assets impacts perceptions of environmental change; consequently, and perhaps more significantly, it also impacts environment-related rituals and practices and responses to climate change.

What charactarizes the era when glaciers vanish? Scientific responses are generally expressed in the form of data. The response of Ladakhi elders is different. I have attempted throught the present dissertation to give voice to their response and I believe that it can be most succinctly expressed as: a changing moral order. Those familiar with the Tibetan Buddhist culture can attest that analogies, proverbs, parables, and metaphors are common discursive practices. Throughout my year in Ladakh I had many, many lengthy discussions with elders. In the course of those discussions, as well as later, when I reflected upon them, I could not escape the feeling that when they spoke of the present time, the time when glaciers vanish hidden deep inside the *phu*, where no one sees them anymore, they were also saying that this is the time when Ladakhi elders live out their years alone in the villages, where they sit in the light of the mountain sun, as they always have, yet no longer seen by those who have been blinded by the glare of modernity.

Conclusion

To live in harmony with all
Is the essence of morality
Tibetan Proverb

In 1874, J. B. Lyall, Settlement Officer for the district of Kangra in the Western Himalayas and Financial Commissioner of the Punjab for the British Raj, described a document relating a royal grant of tax-free land to a family of hereditary astrologers in Lahaul, during the time of Ladakhi kings. Fascinated by the wording of the grant document, Lyall included the following mention in a footnote in his report:

> The phraseology of the deed of grant was curious. It is drawn up and attested by officials with high sounding titles, signed and sealed at our place, &c., and promises that the grant shall endure till the feathers of the raven turn white and the snow on the mountains black (Lyall 1874:186)

While the wording of the deed appeared curious to Lyall, even more intriguing to him was the fact that high ranking, rational men very much like himself had used local folk idiom in wording an official government document. In Ladakh, glaciers have long been markers of time, local people being aware that the ice summits are sensitive to human behavior and that their vanishing would be a bad omen for humanity. The adage alluding to white raven feathers and black mountains is a formula confirming the land in question was granted in perpetuity. The expression, still used by some Ladakhi elders today, reflects a fundamental Ladakhi reality: snow and glacier meltwater is the source of life. If the mountains were to turn black, the land would have no hope of sustaining life. Glaciers, in the local view, are repositories of time; a vanishing glacier is a trope for an era of changing condition of humanity.

* * *

At the end of September 2013, before the onset of another winter, I left the abode of snow. In less than two hours, the plane I was on would bring me from 3,500 meters of altitude to near sea level. From my window seat, I could see the glaciers of the Great Himalayan Range, their moraines imprinted in the landscape. High above, the plane followed the enormous, magnificent ice fields in their southward flow into the Indo-Gangetic Plain, where the water they release is an invaluable source of life. As I pulled my camera from my bag to immortalize the scene, a flight attendant came over with a warning: "This is a sensitive zone, you are not allowed to take pictures".

This dissertation has examined two drivers of change at play in Ladakh. One is of socioeconomic origin and linked to political developments, the other is environmental and driven by climate change. The first major factor of change has been the contemporary politics in South Asia, which have placed Ladakh, including its population and natural environment, in a sensitive border area. Ladakh is not unique in this respect: there is a growing number of nations in South Asia where militarization has become an answer to the threat of internal insurgency and to the need of protecting borders (see Gayer and Jaffrelot 2009). There is a need to examine the implications of geopolitics and national security for the everyday life of the population, which have profound ramifications in domains that at first glance may appear far removed from politics, such as the glaciers of the Himalayas, knowledge about the environment, and the growing physical and psychological isolation of Ladakhi elders. This dissertation has attempted to address some of the implications of regional geopolitics for Ladakh.

The second major aspect of transformation in the region is climate change, a phenomenon only partially understood in terms of scientific knowledge. I have approached climate change, and more specifically glacier recession, one of its most signifcant manifestations in Ladakh, as a prism through which to understand people's changing relation to place. Glaciers and other elements of the natural environment were once closely connected to Ladakhi's worldview. My discussion of the environmental history of Ladakh and shifting state conceptions of landscape led me to examine how the Indian state's involvement in the region has changed the ways in which people engage with the landscape, contributing to a growing disconnection between Ladakhis and their environment. The impacts of these changes are differentiated by a variety of socioeconomic factors, however. Moreover, this disconnection is not the same everywhere within the vast region of Ladakh and even among some households of the Sham Valley, people continue to rear cattle and live exclusively from the land. Nonetheless, the situation in the Sham Valley, the site of my fieldwork, reflects trends operating throughout Ladakh today. Many in Ladakh perceive these changes as a threat to Ladakhi identity.

The experience of Ladakh as a place and the conception of its landscape by the state have changed significantly since the years of Dogra rule, when systematic abuse and exploitative state practices marked the life of the population. During that era, Ladakh was governed from afar; the state maintained only a minimal physical presence on the territory, but exerted sustained coercive pressure on the population. Available evidence suggests that Ladakhis' conception of the landscape was strongly characterized by signs, symbols, and abstractions closely linked to the sacred. The living landscape, therefore, was a profoundly religious

experience. Ladakh's monasteries, temples, chorten, sacred sites, shrines and their associated deities and spirits were all part of a worldview in which landscape, people, and moral values were enmeshed and inseparable. Informed by Buddhist ethics and lay beliefs, these values were very much at the basis of community cohesion. The sacred landscape, therefore, was a fundamental aspect of the everyday experience of Ladakh as a place.

After the indepdendance, the idea of the Indian state in Ladakh soon became associated with the defense of the territory. The state entity took the shape of a very particular military project that involved the local civilian population. While the evolution of this process has much to do with Ladakh's location as a border area, I have demonstrated that the specific character of the production of the Indian state in the region is not due solely to its particular location at the border: it is also, I argue, the result of the terrain's distinct topography. In the decades since British rule, the Indian state's territorialization strategy in Ladakh has been oriented towards taming the landscape through infrastructure building and the co-optation of Ladakhi's knowledge of the environment, in order to better control the territory and reduce vulnerability to foreign intrusion. In doing so, the state has produced a border landscape, transforming Ladakh into a fortress for the subcontinent. The co-optation of Ladakhi knowledge of the environment proved to be crucial due to the topography of the region, where both technology and human capacities have their limitations. Making allies on the ground proved to be essential for the success of the state project in Ladakh.

Looking into the production of the state in Ladakh means looking into the "politics of nature", or the processes by which the state has brought forward a discourse about nature in Ladakh in

order to achieve particular ends. This discourse has been articulated around the construction of the Himalayas as a natural fortress for India. The politics of nature in Ladakh hinge on the power of governance over nature through state-sponsored development schemes and military practices, and are, therefore, strongly linked to territorialization strategies and statemaking practices. It is associated with military practices and knowledge oriented towards the transformation of Ladakh into a naturalized fortress.

The questions of the production of the state within specific geographical terrains is a subject that has received particular attention in the context of Asian highlands (Michaud 2010; Scott 2010; Shneiderman 2010). In a recent historical account, James C. Scott (2010) has analyzed the Southeast Asia Massif (see Michaud 1997), also known as zomia (c.f. van Schendel 2002), as a contact zone for variegate culture, ideas, and practices, which in their encounter have produced a powerful force that keeps the state at bay. In the case of Ladakh, rather than repelling the state, the local population has contributed to its production. In doing so, many Ladakhis have embraced the new economic reality, opening new life opportunities for themselves that were not accessible within recently prevailing patterns of household structure and organization of work.

Although the fact of militarization is not necessarily immediately apparent in every village, it has certainly had profound impacts on village and household dynamics throughout Ladakh. Militarization, in addition, has underpinned the economic restructuring of the region, which has contributed significantly to transform the life conditions. Prosperity has become contingent on the presence of the army, which acts both as key employer and primary safeguard of peace

in the region, which, as I have outlined, is crucial to the stability of everyday life in Ladakh and to the economic health of sectors such as the local tourist industry.

I have discussed the cumulative effect of state policies in Ladakh as the production of the border landscape, which has had important consequences for the way people engage with Ladakh as a place. The economic restructuring of the region has contributed to reduce the primacy of agrarian activities, cattle herding in particular, in household economies, contributing to a disengagement from the environment. In his reflection on the perception of the environment, Ingold (2000:3) argues that "human beings are simultaneously constituted as organisms within systems of ecological relations and as persons within systems of social relations". Ladakh's ongoing rural exodus is altering the ecological and social relations that define Ladakhis. On the one hand, the rural exodus estranges growing numbers of Ladakhis from village life and, consequently, from the cycle of lay and religious rituals that mark the flow of the seasons. The recent socio-economic changes have in fact broken this cycle. Disconnection from the environment, as we have seen, also alters knowledge about the environment. The consequences of the co-optation of Ladakhis' environmental knowledge by the Indian state to produce itself in the region are such that many Ladakhis no longer partake in the traditional activities that used to bring them into contact with the environment. This has far-reaching implications for the vitality of local knowledge. The processual dimensions of the formation of the state and citizens in Ladakh reflect the fact that disparate forms of knowledge are often coproduced. Expert knowledge is frequently infused with local knowledge and, alternately, local knowledge can be significantly altered by expert knowledge.

Notwithstanding these changes, Ladakh's sacred landscape persists today. The state has asserted its presence and infiltrated the fabric of everyday life. But Ladakh's sacred architecture continues to stand and the deities that dwell in the landscape assert their presence, too. Undoubtedly, over the course of two generations the influence of the sacred dimensions on people's interpretation of the world, practices, and attitudes has diminished as the practices through which people engage with the landscape have become increasingly rationalized. Yet, perceptions of the sacred dimensions of the landscape of Ladakh remain strongly linked to Tibetan Buddhist ethics and moral values. These perceptual dynamics, which flow largely along generational lines, account for the differences I have discussed in Ladakhis' experience of place today.

The current context of socio-economic changes in the region confronts Ladakhis with a number of ethical dilemmas. I have addressed three such dilemmas in particular. The first one centers on reconciling the Buddhist ideal of pacifism with serving in the army and the awareness that Ladakh's recent economic prosperity is fueled by international conflict. While it would be wrong to assume that all Ladakhis question the ethical ramifications of the situation, it would be just as wrong to presume that they are uniformly indifferent to such questions. This dilemma has been resolved to a certain extent through the banalization of the potential for violence and the awareness of the very tangible economic benefits of an imposed reality. In other words, Ladakh has to be protected and the presence of the army ensures the continuity of life and prosperity in the region. In many Ladakhi's view, participating in this economy is a necessary evil. This imposed reality has also, I have argued, contributed to the normalization,

of both the presence of the army as a motor of development and the reconfiguration of the landscape through military infrastructure.

A second ethical dilemma facing many Ladakhis relates more intimately to their sense of self. As described in this dissertation, in the Buddhist conception of the life cycle, the latter stages of one's life ought to be dedicated to accumulate merit through virtuous acts. Moreover, although the principle of karma does not, in theory, recognize that previous sins can be undone, many people nevertheless see old age as a time to outweigh past sins by doing good deeds in the present. Praying, too, serves to accumulate merit for one's next life and the sight of elders spinning prayer wheels under the sun in village after village is an indelible memory of traveling through Ladakh. This brings me to the second ethical dilemma faced by Ladakhis. The recent political history of Ladakh has contributed to and, at times, hastened the accumulation of sins. While old age would be a time to accumulate merits, something that many see as critical in light of the recent past, the current socio-economic context is such that increasingly many elders in the villages are forced to give up on tending land and animals, the two resources that had most directly ensured their subsistence in Ladakh's arid environment. This again forces elders to act against Buddhist ethics. When Ladakhi elders talk about abandoning their livestock to buyers, who will send the animals directly to slaughter, it is as if they spoke about abandoning a friend. But it is also, as I have argued, their way to reflect on their own treatement, as those left behind in a restructured economy and a changing society where they seemingly no longer fit. Although many simply have no other option but to sell their animals, their sense of morality is heavily laden with remorse.

Those who continue to maintain their household's agro-pastoralist activities struggle against growing difficulties, including a lack of workforce in households, because of new employment patterns, and the progressive dissolution of community arrangements that in the past served as a safety net for those most in need and eased the burden of individual work. Elders are distraught over the rural exodus, as the new demographic dynamics can only mean the inevitable dysfunction of village life, community cohesion, and the observance of ritual practices. It portends the end of continuity. These new realities result in the growing physical and psychological isolation of elders in the villages, who struggle increasingly with the demands of everyday life matters without others to help them and feel unable to help other family members overburdened with work. The condition of Ladakhi elders, in addition, is a reflection of broader, regional realities: the socioeconomic and environmental drivers of change at play in the Himalayas, not only on Indian territory, but also that of other states, are bringing about similar changes for many communities where mountain depopulation is a reality.

The third and last ethical dilemma of importance to my discussion is also related to elders' growing isolation: it is that of the younger generation, who increasingly choose to pursue career aspirations outside their natal villages and need to support their own young families, must face the question of who will take care of their aging parents at a time when villages are emptying. The decision to move out of their natal village, whether temporarily or permanently, is not taken lightly, but employment with the government or the army means accepting the possibility of moving very far away, somewhere in the vast territory, where transport and communications are often difficult. This is a particular dilemma for the eldest

sons of families, since traditionally they would be expected to take over the family farm and accept the responsibility of caring for their aging parents. But, like their peers, many today wish to pursue other ambitions and, as is the case with those who have not lived in villages for extensive periods of their youth, many simply feel unable or unsuited to take up the farming lifestyle. Abdicating this responsibility, whether to a sibling or, worse, when the household has no other able bodies, is an agonizing decision that leaves many haunted by crushing feelings of guilt. What is more, their fellow villagers at times judge them harshly for what they perceive as a lack of consideration for others. Yet, the reality today is that with the end of the "extended family as a cooperative", as part of which various tasks could be accomplished, villages do not provide enough resources to ensure the subsistence of families.

In giving voice to Ladakhi elders, the present dissertation has given precedence to a perspective characterized by notions of morality that must be acknowledged in developing a comprehensive discussion of the range of socioeconomic factors changing Ladakh today. Ladakhi perspectives must be considered in light of the Tibetan Buddhist conception of the life cycle and, importantly for my study, the stage that elders have reached in this cycle. Many Ladakhis, not only elders, consider that the landscape is a reflection of human morality. If the environment is depleting, it is the result of people becoming bad, of people abandoning the land, of people failing to keep sheep, goats, cows, yaks and dzo anymore, of people acting for themselves, of people shunning community arrangements, of people becoming greedy, and of people praying "with empty heart" or for show, without true humility. All these things, these human faults, explain why the weather has changed: hence rainfall has become erratic, hence there is less snow in winter and temperatures are getting warmer, hence vegetation in the

mountains is depleting, hence the glaciers are receding. For Ladakhis, decoding this landscape is both about inquiring into its physical changes and broader changes in humankind, a view which is deeply rooted in Buddhist cosmology. Yet inasmuch as Buddhist Ladakhis draw on religious cosmology to interpret changes in their environment, they also continually decode the physical processes behind these changes. Their empirical knowledge, developed in the course of working the land and moving through the mountains, enables them to observe highly localized manifestations of climate change that are not the main focus of climate change researchers, but which have very real effects on Ladakhis' lives. But the vitality of this whole body of empirical knowledge is, as I have demonstrated, made vulnerable by the economic restructuring of Ladakh.

What are the implications of this case study of Ladakh for the current global context of climate change, and how does it contribute to the scholarship on South Asia and human relation with the environment? First, in this dissertation, I have examined people's subjective experience of white peaks that increasingly turn to bare rock, mountains losing their vegetation cover, and water sources increasingly in want of water. I have also discussed these changes against the backdrop of socioeconomic trends and the recent political history of Ladakh. In doing so, I hope to have contributed to the literature on human-environment and human-animal relations in the Himalayas. Studies on the relations between people and the environment in the region have at times adopted a dualistic perspective on nature and culture, depicting resources strictly in terms of production. In light of broader changes in human geography and environmental anthropology, authors have recently begun to integrate the interrelation between human, nonhuman, and environmental elements into their analysis (Agrawal 2005; Campbell 2013;

Rademacher 2011). I hope that the observations and insights emerging from my study of Ladakh have contributed to develop this current of research.

Second, as van Beek and Pirie (2007) show, scholars working on Ladakh have often tended to orient their research towards the themes of Tibetan and Buddhist studies, favoring the study of Ladakhi society as a Tibetan society, as well as those of South Asian studies. Many studies of socio-environmental questions in Ladakh reflect this trend. Anthropologists who have studied the ecosystem of Ladakh have predominantly inquired into agrarian production, development, and natural resource management, in the context of broader national policies. This contrasts with the work on Ladakh produced in the tradition of Tibetan studies, which have instead focused on how elements of the natural physical environment are conceived and perceived according to the local cosmology and religious beliefs. While the work of these scholars has been crucial to an understanding of the multifaceted dimensions of how human interact with the environment in Ladakh, the interaction between these various elements has remained under-theorized. With this dissertation, I have attempted to contribute to a fuller understanding of the intermingling of the political ecology and the cultural dimensions of human-environment relations in Ladakh.

Third, the scholarship on South Asia has often treated the Himalayas as a peripheral object of study. A growing body of work, however, is integrating Himalayan issues into the political and economic context of South Asia (see Aggarwal and Bhan 2009; Bhan 2014; McDuie-Ra 2012; Shneiderman 2015, 2013), recently drawing attention to questions of national identity and different social actors' engagement with the environment (Cederlöf and Sivaramakrishnan

2006). Yet, the link between the broader geopolitics of South Asia and socio-environmental issues in the Himalayas remain unexplored. In examining the interaction between elements of the sacred, agro-pastoralist, and geopolitical facets of the landscape of Ladakh, I hope to have shed some light on the ethnographic dimensions of the encounter between regional politics, the institutionalization of nature, and local environmental knowledge and practices, as well as the resulting implications for local lifeworlds in India,, South Asia and the Himalayas.

Finally, I have suggested that the disconnection of Ladakhis from the environment has implications for their perception of climate change, in which glaciers occupy a central place. Orlove et al. (2008:5) note that human perception of glaciers is shaped through two attributes: their visibility and the way there are subject to cultural framing. The glaciers of Ladakh, and the Sham Valley in particular, are often seen only when people trek to the *phu*, a practice traditionally performed while grazing cattle, on a regular basis, six months of the year. Villagers have long maintained a close connection with the glaciers feeding their village streams, manifest in the attribution of names, the transmission of narratives, and the careful attention paid to their movements. But this close connection is directly linked to visual and physical contact with glaciers, maintained through pastoralist activities. As pastoralism declines, knowledge about the environment is altered. Concurrently, as I have suggested, the rationalization of Ladakh as a place through state practices has also contributed to the growing abandonment of folkloric traditions that once celebrated and perpetuated the interdependence of people and elements of the natural environment, glaciers in particular, through both poetic imagery and applied practice. This cultural framing of glaciers, in particular through ritual practices, occupies a less salient presence in people's life today. Altogether, the visibility of

glaciers in Ladakh has decreased and their presence in the local cultural world as a fundamental source of life has waned; and so, I argue, the impacts of climate change in Ladakh are going increasingly unnoticed by human eyes.

As human beings who feel and think, our way of decoding the environment is as much the product of our own epistemology, which is, among others, dictated by our cultural beliefs and values, by the contingencies – economic, political, historical – of the place where our knowledge is produced and by the way we engage with the surrounding environment and make empirical observations. The way people perceive the environment is intricately linked to the way they engage with it. What the case of Ladakh teaches us is that the time of increasing rationalization of practices of everyday life, of people's growing disconnection from their immediate environment, and of humanity's increasingly resolute striving to abstract itself from nature, is a time of developments that have significant implications for how we relate to environmental changes.

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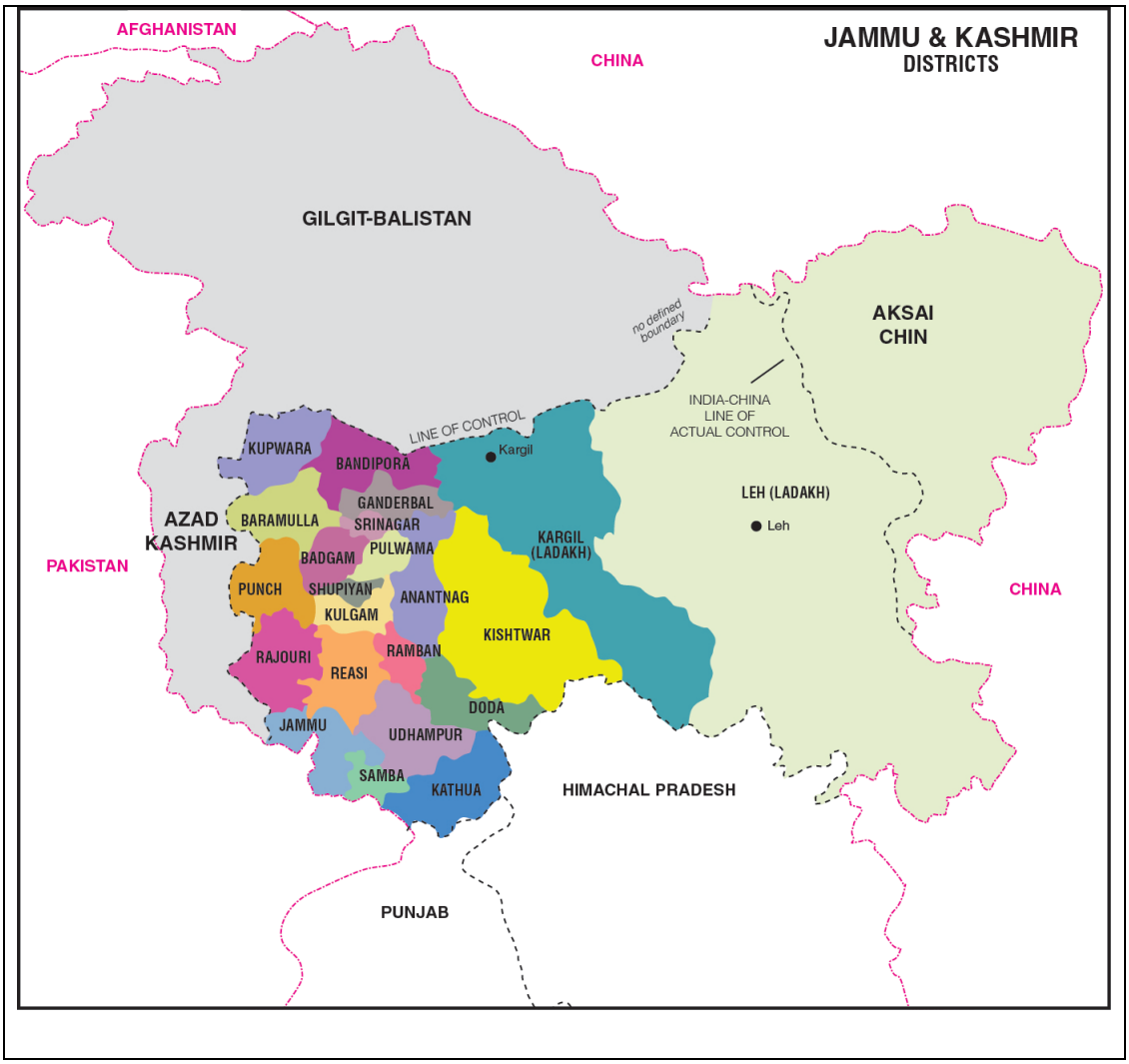
Annex

Map 1 – Region of Ladakh

Source: http://www.lib.utexas.edu/maps/middle_east_and_asia/kashmir_region_2003.jpg

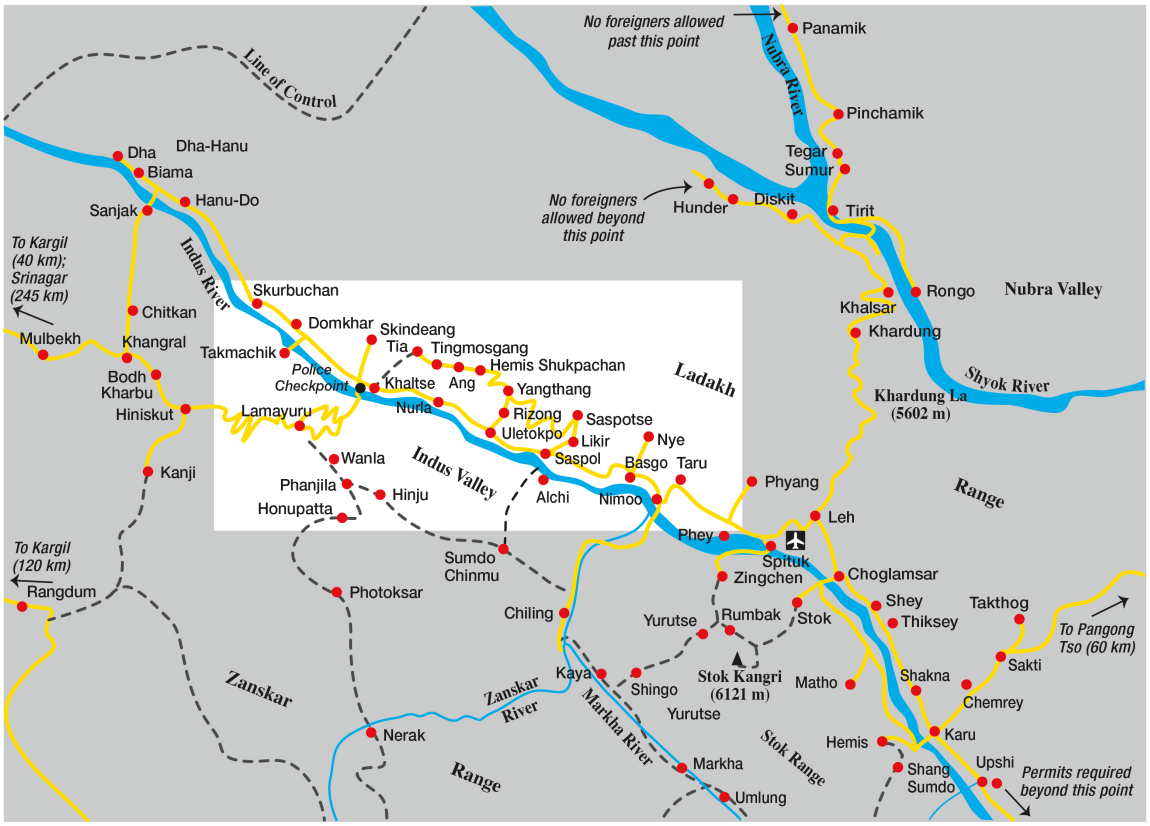
Map 2 – Districts Map of Jammu and Kashmir state[159]



Source : The map has been adapted from a district map from the Jammu and Kashmir Police : http://www.jkpolice.gov.in/contact/district-police-headquarters.htm

[159] Unidentified section: Pakistan Kashmir

Map 3 – Sham Valley



Map adapted from Lonely Planet India, 12th edition (Victoria: Lonely Planet, 2007).
The light grey area represents the approximate extent of the Sham Valley.