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Up From the Roots:
Contextualizing Medicinal Plant Classifications of Tibetan Doctors in Rgyalthang, PRC

Denise M. Glover

A dissertation
submitted in partial fulfillment of the
requirements for the degree of

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Department of Anthropology

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Abstract

Up From the Roots: Contextualizing Medicinal Plant Classifications of Tibetan Doctors in Rgyalthang, PRC

Denise M. Glover

Chair of the Supervisory Committee:
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Department of Anthropology

This dissertation argues that natural-kind classifications need to be contextualized within the particular socio-cultural milieu in which they occur; the present work is therefore framed as an ethnography of plant classifications. The linguistic and ethnic context of medicinal plant classifications is explored, and the classifications themselves are analyzed in terms of their cultural and linguistic significance.

In providing the important context in which plant classifications occur, I highlight the extent to which knowledge of plants and medicine is intricately connected to ethnic identity among the consultants with whom I worked. In particular, I discuss the linkages between the state discourse of "ethnic medicine," the local perceptions and practices of Tibetan medicine, and Tibetan identity in a multi-ethnic area. I examine the crucial role that language identity plays in the discourse of plants and medicine by Tibetan doctors, and I identify the linguistic and ethnic "roots" of plant classification in the Tibetan medical tradition. I also explore implications for the linguistic relativity hypothesis and discuss the crucial role of literacy in the classificatory cognition of Tibetan doctors and in my interactions with these doctors.

In my analysis of plant classifications, I examine the ways in which these classifications are connected to the classification of disorders in the Tibetan medical tradition. Taking my cue from Tibetan doctors themselves, I argue that the theoretical foundations of a medical system must be understood in order to fully grasp how medicinal plants are related in a system of classification. Furthermore, I explore the important linkage between plants and disorders through discursive language. I examine the slippage between signifier and signified of plant categories in Tibetan medical texts,

since these texts act as crucial cognitive anchors for doctors in terms of classifications. I analyze how Tibetan doctors utilize particular classification lexicon and examine the ways in which this lexicon is situated in the cultural knowledge system of Tibetan medicine (as reference points in medical texts). I also explore the context in which apparent misfits between Chinese and Tibetan lexicon occur and attempt to understand how Tibetan language, both spoken and written, functions in classifying plants and disorders for Tibetan doctors.

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Preface

I first went to Rgyalthang[1] in 1999 for a preliminary visit to see if it was feasible for me to conduct research in the area. My original interest in graduate school had been in ethnicity studies in the PRC; I was keenly interested in ethnicity as negotiation, as political and cultural expression within an acceptable, although limited, framework. Yet it soon became clear to me that I could not contribute much of significance to the research on ethnicity studies; it seemed that the important points had already been made. I was, however, still very much interested in issues of ethnic identity and I remained committed to working in "borderland" Tibetan regions of the PRC.[2] At the same time, I became interested in ethnobiology. As I discovered, the majority of ethnobiological research conducted by North Americans and Europeans (and published in western languages) has focused on the Americas, with some research having been conducted in the South Pacific and parts of Africa. Research in East Asia, and China in particular, has largely been absent.[3] I began to conceive of a project that would link my academic interests (ethnicity and ethnobiology)[4] with my personal interests (environment, plants, medicine), and also be of considerable significance for the fields of socio-cultural anthropology, ethnobiology, and Tibetology; thus the current project was born.

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[1] Pronounced, in local dialect, something like "jay tong" in standard American English.
[2] As is reflected in this dissertation, ethnic identity surfaces in practice, use, and discourse of Tibetan medicine in Rgyalthang. Thus, although I did not directly set out to study issues of ethnic identity in Rgyalthang they have nonetheless become part of this dissertation.
[3] This does not include research conducted by researchers from (and within) the PRC. Much of this research, however, is not translated and therefore does not enter the discourse of ethnobiology in North America and Europe.
[4] The connection between ethnicity studies and ethnobiology is not a spurious one. Both studies take *ethnos* (a people) as the parameter around which inquiry is constructed, although ethnobiology looks at the system of understanding the natural world by an *ethnos* while ethnicity studies focus mainly on issues of identity for an *ethnos*.

The name Zhongdian (Chinese for Rgyalthang)[5] was one that kept surfacing in discussions with various researchers and scholars about a potential area for research. A fellow graduate student in the anthropology department, Peng Wenbing, suggested I go to Zhongdian—an area of apparent botanical importance. Pei Shengji of the Kunming Institute of Botany, who happened to be passing through Seattle in 1998 and was introduced to me by my advisor, Stevan Harrell, warmly welcomed me to Yunnan as a guest researcher, adding that Zhongdian was a particularly promising area. After the initial two-month visit in 1999, I decided to wait another year to return for more research until my son was older. I spent three months in Rgyalthang in 2001 and then seven months in 2002 on a Fulbright Grant.

I spent much of my time in Rgyalthang in 2001 and 2002 at the Tibetan Hospital, discussing important aspects of Tibetan medicine with doctors and observing medical and pharmacological practices. I interviewed several doctors of Tibetan medicine at this and the other hospitals and clinics in town, as well as several village practitioners located within the area. I also traveled to outlying areas, including Deqin (Dechen) County, interviewing hospital doctors as well as village practitioners. Since my main research interest has been medicinal plant classification as conceptualized by doctors of Tibetan medicine in Rgyalthang, I spent many hours asking about how plants are related in a system of classification. These questions, while seemingly straightforward, required a fair amount of explanation by doctors who elaborated on various qualities of plants and categories of disease. To access classificatory schemes, I asked doctors to list important

[5] In Chapter Two I discuss the significance of these two names.

plants, to perform a variety of sorting tasks, and to explain their choices to me as best as they could (usually explanations were hindered by my lack of knowledge or understanding, not theirs). I observed doctors diagnosing patients, watched the preparation of medicines, and collected medicinal plants both with doctors and by myself in Rgyalthang and the surrounding areas.[6]

I do not use pseudonyms in this dissertation. I consider the doctors with whom I studied to be important contributors to the authorship of the present work and that by using their real names this view is more successfully communicated. Furthermore, the doctors may be contacted, and the information contained within this dissertation verified, at any future date by any reader of this work. I do not feel that these doctors are put in any danger (politically or socially) by using their real names; I certainly would not expose them in this way if it seemed a possibility.

As will become clear, this dissertation is about more than just plants and their classifications. It is also very importantly about the context within which medicinal plant classifications take place. As the reader turns to the first page of this work it is my hope that the sights and sounds of Rgyalthang will greet him/her as a host extending an invitation to a welcomed guest to explore and experience the world within.

A Note on Transcription of Tibetan and Chinese

Both Tibetan and Chinese names and terms are used throughout this dissertation. The Wylie system of transliteration is used for Tibetan words and complete Tibetan spellings

[6] Voucher specimens I made have been deposited in the US at the University of Washington Herbarium and the Missouri Botanical Garden, and in China at the Kunming Institute of Botany.

are given in the text. In the case of proper nouns excluding place names, phonetic approximations (or in some cases, more common spellings) are used, followed by Tibetan spellings in parentheses. I use phonetic approximations (or in some cases, more common spellings) for place names; the only exception to this is the proper name of Rgyalthang, for which I use the full Tibetan spelling (and do not include a space in between syllables) throughout the text. All Chinese terms are transliterated using the pinyin system of romanization. In addition, I use Chinese characters throughout the text, except for place names, although only on the first occurrence of key terms that appear more than once within one chapter (I will add the Chinese character even for key terms that have appeared previously in the text whenever a new chapter begins). A glossary of place names with complete Tibetan spellings and Chinese characters is included at the end of this document for the reader's reference.

I use either Tibetan or Chinese for key terms throughout the text, with English glosses (approximations) provided in parentheses. When English glosses are provided first (for ease of reading, or if the terms are not key ones), I use single quotes around the gloss.

Except for place and personal names, Tibetan terms are in bold italics while Chinese terms are in italics (and usually preceded by characters). When not clear from context or the above directives, I indicate which language a term belongs to by writing a "T" for Tibetan or "C" for Chinese directly before or after the term.

Acknowledgments

In the process of conducting research and writing this work I have benefited from the generosity of many. First, I would like to thank the Rgyalthang doctors with whom I studied, especially Drs. Ma Liming and Pema Tenzin, without whom none of this would have been possible. They allowed me to enter their professional lives as a colleague, a student, and a friend, and for this I am forever grateful. Thank you also to Dr. Li Deyou, who was among my first contacts in Zhongdian and who untiringly introduced me to numerous people in the area, including Fang Zhendong, who identified plants that I had collected as voucher specimens. I owe an enormous amount of gratitude to Xu Jianchu, under whose direction all necessary arrangements for my research were made, and the Kunming Institute of Botany (KIB) in Kunming, my official host institute in China. Other people at KIB to whom I owe thanks include Pei Shengji and Xie Hongyan. I look forward to continued contact with these and other researchers at KIB.

The Jackson School of International Studies and the Department of Anthropology at the University of Washington both provided funding for my pre-dissertation research; a Fulbright Grant supported my extended dissertation research in Rgyalthang. I am grateful to the various agencies responsible for providing these sources of funding, without which I might still be scrambling to complete research.

It has been my good fortune to have had Steve Harrell as a dissertation advisor. He has been an encouraging mentor since I began graduate work at the University of Washington, offering enduring support and constructive criticism, and somehow always finding time in his hectic schedule to offer me sound advice. His feedback for and editing

of this dissertation has been invaluable. He has modeled not only excellent research and teaching skills, but also humanistic concern for the lives of those with whom he comes into contact. He was the primary reason I came to the University of Washington and through his continuous exemplary mentoring has confirmed that I made the right choice. Gene Hunn has been an inspiration for me in the field of ethnobiology. His own pioneering work in Mexico, and his research among peoples of the Columbia River Plateau, has generated significant insights in ethnobiology. He has offered important and challenging feedback throughout the course of my research and never ceases to run out of ideas about ways to analyze data. He will soon be retiring from the University of Washington; his absence will be dearly felt by all. Although her research and mine are aligned neither theoretically nor by region of study, Miriam (Mimi) Kahn has been able to offer important critiques of my work from within the field of anthropology. I have appreciated her commitment to excellence, and she has been instrumental in my attention to careful writing. She has also provided important insights on research and life in academia as a woman and a mother, which I greatly value. Larry Epstein has been an indispensable part of my graduate career. He has spent a substantial amount of time and effort helping me decipher Tibetan texts having to do with my area of research. He has tirelessly provided references, factoids, translations, editing, and constructive criticism of my work. In short, he has been a tremendous help.

Friends and colleagues who have given their assistance, in one form or another, along the way include Tsering Norbu, Tenzin Lobsang, Jan Salick, Heidi Schmidt, Åshild Kolås, Ellen Bartee, Ken Hugoniot, Li Yi, Eunmi Lim, Lynn and Kevin Skalsky, Jennifer

Mathews, Janet Upton, and Krisadawan Hongladarom. Abigail Skalsky took many of the photos of Zhongdian Town in this dissertation, for which I am very thankful. I would like to extend a special thanks to Yonten Gyatso for providing insightful interpretations and commentaries and for being willing to share his expertise.

Finally, my family deserves an enormous amount of thanks for their support throughout the course of my graduate work and the writing of this dissertation. My son, August, made three trips to China before the age of five, living with me during the course of my entire fieldwork except for two months. He patiently endured hours of interviewing, constant prodding by curious on-lookers, and being separated from his Dad for months at a time. I thank August for his understanding of and interest in my work as well as his assistance in the field. My daughter, Saveria, entered our lives at the tail-end of my dissertation writing and has been an exceptionally easy-going baby. I hope that she too will experience the adventure of fieldwork and find it equally intriguing as her brother has. I offer immense thanks for lessons in tolerance, passion, adventure, and determination that my mother taught me. Although research took me (and my son and husband) away from my mother for long stretches at a time, she was always encouraging of and excited to hear about our experiences. Unfortunately she is no longer alive to read this final work, but I believe she would be extremely pleased about and proud of its completion. Even after death she continues to be one of my greatest inspirations. My father and stepmother, George and Anne Glover, sent numerous care-packages while we were in China that brightened our days and have offered endless support and encouragement throughout the course of my graduate work. My father-in-law, Frank

Avantaggio, was especially helpful in providing information and analysis pertinent to this work from the standpoint of a retired medical doctor. My mother-in-law, Deana Avantaggio, and stepmother-in-law, Mary Avantaggio, have been equally and solidly supportive. My brother and sister, George and Dawn Glover, have in many ways been my biggest fans; I thank them for their continued praise and encouragement, which have bolstered me throughout much of my life. Finally, I cannot adequately express the gratitude I owe my husband, Glen Avantaggio. He has been unconditionally supportive of my research and has been a central source of inspiration for me. I thank him for his encouragement, patience, sense of humor, and loving partnership in life; without his support this work would not have been possible.

Undoubtedly I have overlooked the assistance of others, for which I apologize. While the debt I have incurred is extensive, I accept all errors contained herein as my own.

Dedication

In loving memory
of my mother
Victoria Chiudina (1946-2003)

and to
the loving presence of
August, Saveria,
and Glen

Chapter One:
Ethnographic Setting and Theoretical Orientation

The air is thin. The morning is cool. Upon waking I can hear the chatter of women walking to market as well as others hacking to clear lungs congested from years of cigarette use and the smoke of open fires in homes. Today is a clear day; the distant mountains glisten with snow and rock faces, the sky is crystalline, and the sun intense. Soon the summer rains will arrive and it will feel nearly like winter; it will be difficult to shake the chill from my body then.

Having spent the morning with my son bundled in sleeping bags to ward off the morning cold (while simultaneously playing), and now with the sitter here for the afternoon, I set out from my apartment for the Tibetan Hospital. I need to clarify a few points with Dr. Ma Liming (马立明医生) and he says he has time today to talk. As I walk on the dusty road (some have said this will become paved by next year?) I pass by workers erecting brick buildings for more of the ubiquitous shop fronts that sell a mix of goods (candy, sunflower seeds, beer, toilet paper, batteries, toys). I wonder how these shop owners make a living, all selling very little of the same stuff. The construction workers speak with strong accents that mark them as non-local; they live directly next to the construction site in a small shack thrown together with various lumber scraps and bits of plastic. They work long hours for little pay; their cotton shoes are tattered camouflage. There are many of these itinerant workers in the construction business, many from neighboring Sichuan Province, an area with poverty and high rates of unemployment concentrated in some locales. Across the street from this site is a newly built hotel; a

tourist bus from Yunnan Travel Service, based in the provincial capital of Kunming, is parked in the driveway. Not only international but also domestic tourists flock to the area, with expendable income and expectations of rapture in the "wilds" of a Tibetan area. The county has just recently been renamed Shangrila County (香格里拉县), after a mythical paradise, purportedly in the hopes of continuing to encourage tourism. I wonder if these construction workers and the tourists ever meet face to face; if so, would they converse? About what? The divide between economic classes is growing in China. Having witnessed much of this historical change over the past decade of study and research in China, I feel aged. As I walk along I see a mama pig with her five sucklings and a bovine (of which ilk I am not quite sure) rummaging through the drifts of smoldering garbage; I am amazed that they emerge from their hunt unscathed, as they seem to be especially drawn to the piles exuding high concentrations of smoke.

Since I am short on time I decide to hop on the number three bus for the last leg of the trip. I find a seat (the back of which has been broken off) in the smoke-filled bus, nodding hello to a local woman with a full basket on her back. Many women from the surrounding villages come to town by foot to buy dry goods (some come also to sell cheese, yogurt, potatoes), hauling them home in hand-woven basket backpacks. There are three monks on the bus, all undoubtedly heading back to ***Sumtsenling*** (***Sum rtsen gling***) Monastery on the north end of town. My husband and I jokingly refer to this bus as the Monk Express, since it seems to be always ferrying monks to and from the monastery. Founded in 1679, ***Sumtsenling*** reportedly has about 700 monks in residence but at one time had approximately 2,000. As we near the hospital, I yell out "下车 *xiache*" to inform

the driver that I will get off at the next stop. I find that even after being here for several months I am still somewhat self-conscious as people turn to look at me after I have called to the driver and watch me pay and then exit the bus. I used to find being so noticeably different exciting; as the years go by I find it wearisome. At times like these I completely understand the sentiment of my four-year-old son, who usually draws more attention than he ever wants in public settings in China, when he commented one day "I just wish they'd stop looking at me, Mom." On occasion I have run into other foreigners on this bus, usually going to tour ***Sumtsenling***; sometimes I talk with them but sometimes not. I am not the only foreigner (with my son) living in town in 2002. There are five other researchers here (two Americans, an Australian, a Norwegian, and a Tibetan with Norwegian citizenship), an American family of six working for a Christian poverty-relief agency, and an Indian trekking agency manager. We all know each other and often gather together for beer and barbeque. Most folks in this town have seen foreigners before, mainly as tourists, yet foreigners who reside here and speak Mandarin and/or Tibetan still remain a bit of an historic novelty, having all shown up within the past year or so.

I walk in through the gates of the hospital and then north (left of the gate entrance) toward the building where Dr. Ma's office is. The hospital is a small complex of three main buildings formed in the shape of a U (see Figure 1.1).[1] The central building contains a shrine room (***lha khang***) on the top floor, where classic medical texts and Buddhist scriptures are housed (see Figure 1.2). I have been told that on New Year's Day a ceremony is held in the shrine room and medicines are presented for blessings from the

[1] The fourth building, where the public pharmacy is housed, was not built until the fall of 2002; this narration of my visit to see Ma Liming took place before construction had begun.

Buddha, but unfortunately I have never witnessed this myself (not having been here at that time of the year). The rest of the central building contains offices, examination rooms, and the dispensary. The building to the south (right as one enters the gate) houses the hospital's in-patient wards (see Figure 1.3). The building where Dr. Ma's office is contains offices, rooms for storage of medicinal ingredients, and the hospital medicine factory (see Figure 1.4).

Today I notice they have planted some new grass in the courtyard, along with rows of shrubs similar to arborvitae. Soon a statue of the elder Yuthok Yonten Gonpo (G.yu thog Yon tan mgon po rnying ma), an important figure in the development of Tibetan medicine from the 8th Century, will be installed atop a marble platform with the hospital's name in brass lettering—in both Tibetan and Chinese (see Figure 1.5). I notice two Tibetan women sitting outside, eating sunflower seeds with a technique I have long admired, both for its efficiency and for the laissez-faire attitude that accompanies it. They crack the seeds inside their mouths and push the shells out with their tongues. The shells of the seeds hang from the edge of their lips; as the empty shells accumulate they gradually fall to the ground, rarely pushed along by any effort on the part of mouth or lips. The women are sitting in the shade, avoiding the intense sun. The reds and greens of their headscarves seem even brighter in the cool shade. They wear front aprons with pants underneath, a unique adaptation of the traditional Tibetan dress (***phyu pa***) to local muddy summer conditions. The recent addition of bright purple rubber boots seems especially smart. They appear to be waiting for someone—a doctor? A relative? I wonder

if a family member is ill. Patients rarely come to the hospital alone; at least one family member or friend usually accompanies them.

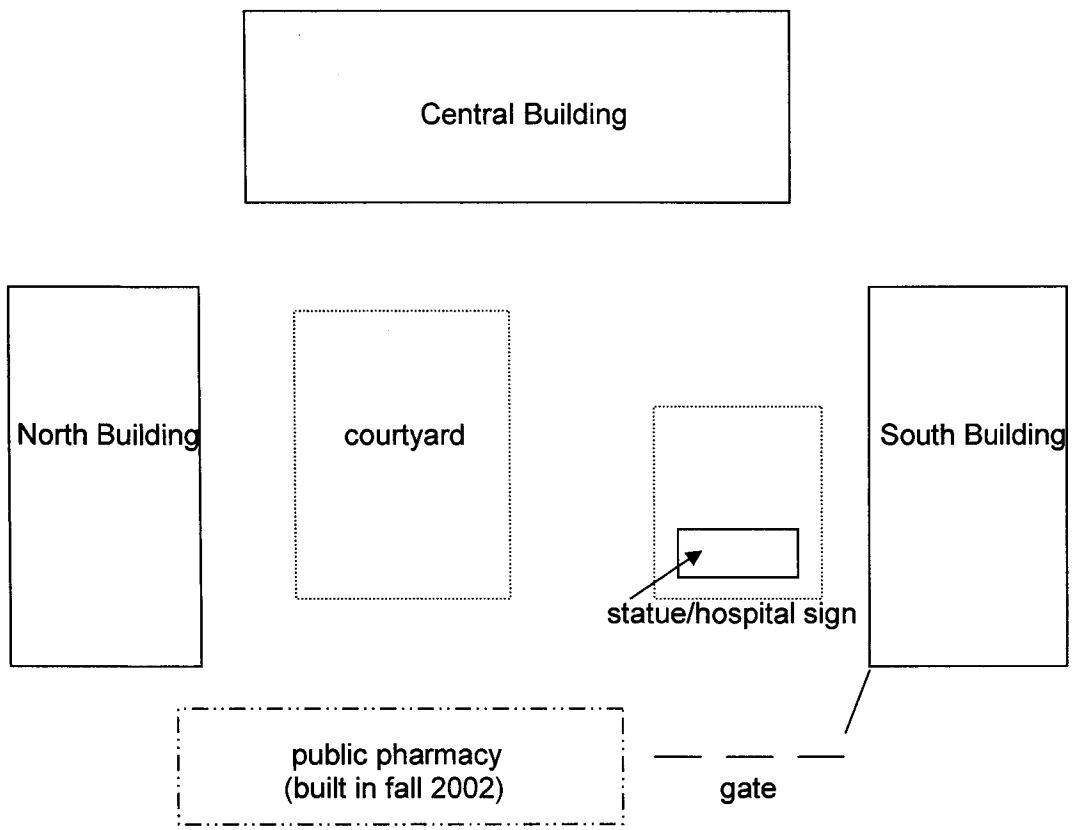

Figure 1.1. Basic layout of the Tibetan Hospital of Diqing Prefecture. Other out-buildings on the hospital campus are not shown. (Not drawn to scale.)

Figure 1.2 Central Building of the Tibetan Hospital, housing dispensary, examination rooms, offices, and a shrine room (*lha khang*) on the very top (with blue tile).

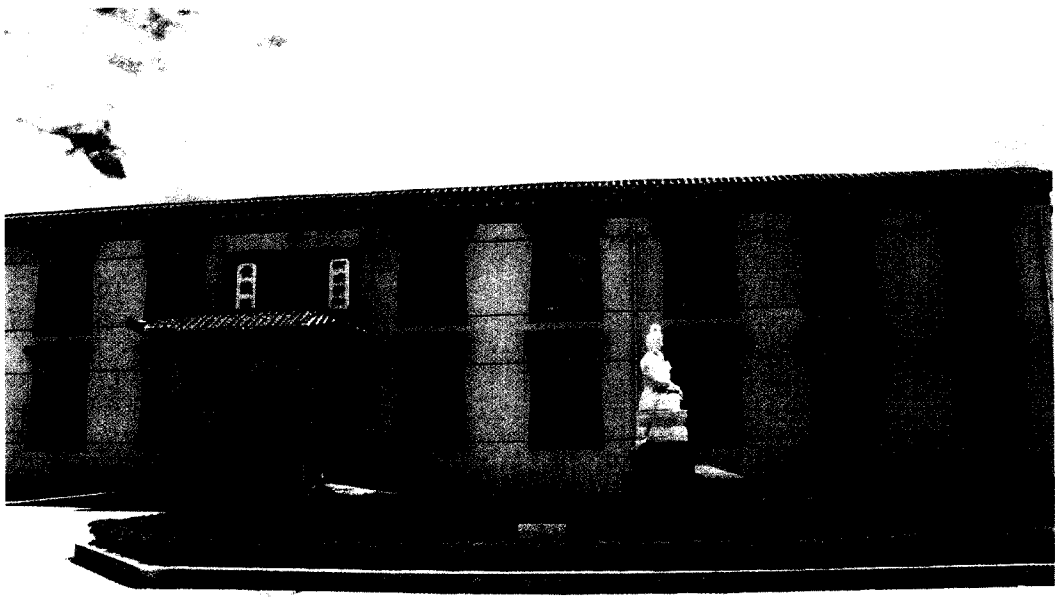

Figure 1.3 South building of the Tibetan Hospital which houses in-patient wards. Notice the elaborate Tibetan-style painting around windows and eaves. The statue in the front is of Yuthog Yonten Gonpo (see Figure 1.5 below).

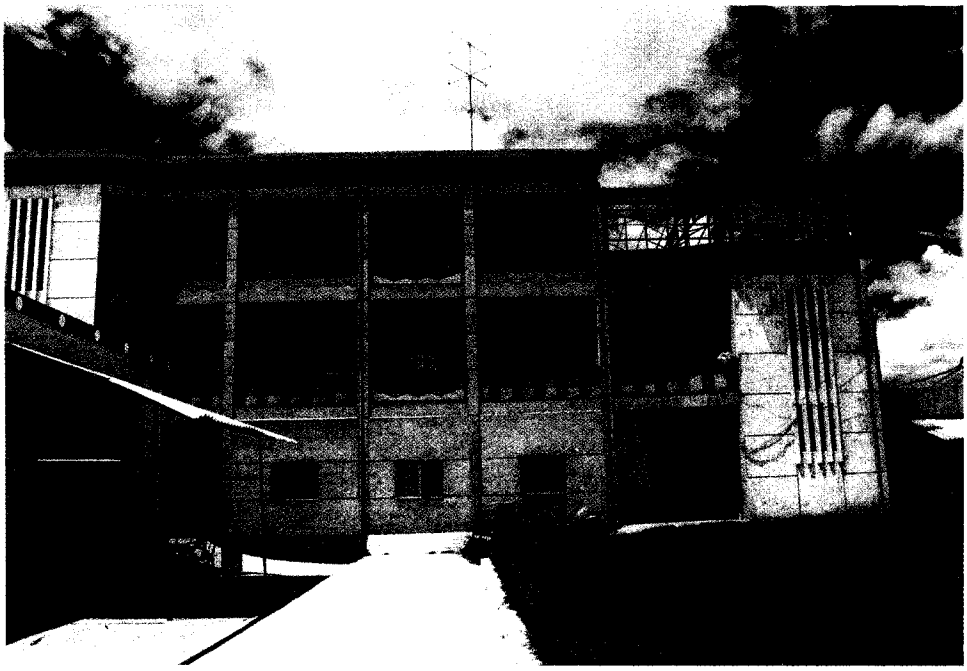

Figure 1.4 North building of the Tibetan Hospital. Located in this building is the Hospital medicine factory (first floor), offices (Ma Liming's office is on the second floor), and rooms for drying and storing medicinal ingredients (top floor).

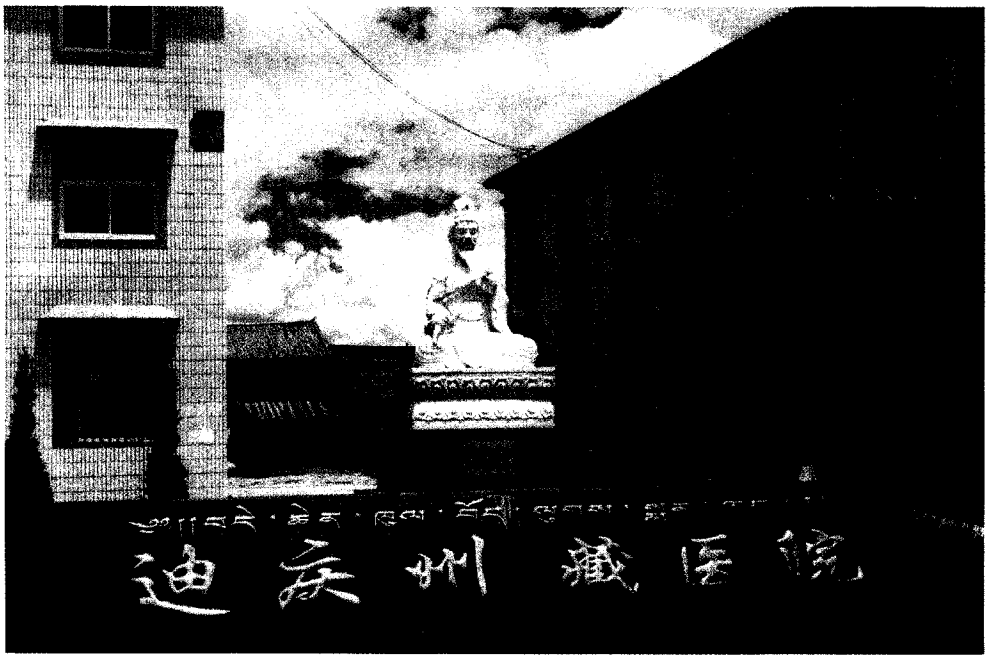

Figure 1.5 Statue of Yuthog Yonten Gonpo, an important 8th Century figure in the development of Tibetan medicine. On the sign below is written the name of the hospital (Tibetan Hospital of Diqing Prefecture), with Tibetan on the top and Chinese below. This statue and sign were installed in the spring of 2002.

Most of the clientele at this hospital is Tibetan, and most Tibetans in town come to this hospital.

I walk up the two flights of concrete stairs to Dr. Ma's office. His door is open, as usual. Even on cold days the door remains open. He is sitting close to the electric-element stove, reading the local newspaper. A slim, handsome man of 34 who smokes too much, Dr. Ma is always willing to spend time in the afternoons talking with me. As I walk in he invites me to sit down and puts the kettle on for tea (I am no longer offered cigarettes—he has long given up on me ever participating in this ritual of social exchange and solidarity). We spend a few minutes talking about the weather and I mention how the courtyard is looking nice. Then after a brief pause from obligatory chatter, Dr. Ma asks what I would like to discuss. We speak in Mandarin, since my ability to converse in Rgyalthang Tibetan is extremely limited, and yet many medical terms and all plant names we discuss are in Tibetan. I begin by saying that I was a bit confused when we spoke a few days ago about the distinction of ***gnas*** (place) and ***rigs*** (kind). "Is this a distinction used for plants or for disorders?" I ask. Originally I thought that it was just for plants, since we had been talking about plants, but then when I was looking back through my notes and drawings that Dr. Ma had written and given to me I realized that some of the terms used referred to areas of the body and types of disorders. Dr. Ma explains that this distinction is used *both* for plants and for disorders. Plants can be classified according to ***gnas*** in two ways: the place where the plants are grown, and according to the parts of the plants (flower, roots, stem, etc.) that are utilized as medicine. Disorders are classified in terms of ***gnas*** depending on where in the body the disorders occur. In terms of ***rigs***

(kind), plants can be classified a number of ways (according to characteristics, healing properties, morphology, etc.) while disorders fall into divisions of ***rigs*** based mainly on their humoral types.[2] It is another example, I realize, of the important connection between classification of plants and that of disorders. Although I continually try to keep these systems separate, they are not. Later this will become a crucial insight for my work and will form the backbone of the central argument I make in my writing.

As Dr. Ma explains the various essential characteristics of disorders (***nad gyi mtshan nyid***) I notice that he is reciting them from memory. Later he and Tashi Tsering (Bkra shis Tshe ring), another doctor at the Tibetan Hospital, will tell me how much memorization is part of their medical training. They must memorize parts of the medical classic ***Rgyud bzhi***[3], they tell me, just like monks memorizing Buddhist scriptures. "Some students memorize and don't even understand what it is they're reciting!" they add. They argue that some students memorize so much that their minds get preoccupied with memorizing and they cannot function in any other way; they cannot do the simplest things. They admit that memorization is important but that it can feel rather burdensome at times. Their mention of the connection to monks memorizing scriptures is an interesting one. These two doctors are part of generation in which medicine is no longer taught only in the monastic setting. For centuries Tibetan medicine was yoked with religious studies. Monks learned medicine as one of the numerous subjects of general study (along with astrology, logic, rhetoric, literature, etc.) and could choose to learn medicine more in-depth in specialized study. Since the founding of the PRC and the

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[2] These divisions will be discussed more fully in Chapter Six.
[3] The Tibetan edition of this text dates to the 8th Century and is discussed in Chapter Five.

Communist Revolution, however, the specialized study of Tibetan medicine has been moved from the monasteries to state-sponsored colleges and hospitals.[4] Most of the doctors that I interviewed who were over 60 years old had started their study of Tibetan medicine as young monks. In contrast, the younger doctors had begun by apprenticing with one of the more senior doctors and then had gone on to the School of Health (卫生学校 *Weisheng Xuexiao*) in Zhongdian for four years, with several courses taken at Lhasa Medical College (***Lha sa Sman rstis khang***). Dr. Ma has expressed his gratitude that the study of medicine is available to the "common man" (普通人 *putong ren*) now, although he acknowledges that there are areas of healing to which he cannot attend because he is not trained in such matters of spirit/psyche (神 *shen*) and karma (***las***). If he suspects that someone needs help in these areas, and particularly if a patient is not responding to medicine very effectively, he will send them to the monastery.

I remember my first visit to the Tibetan hospital as the parent of a patient. It was 1999. My son was 17 months old and had come down with a virus of some sort (retroactively diagnosed). Although he had endured the discomfort of mouth sores with such grace, we became a bit worried by a blister on his thumb that continued to grow and apparently began to cut off the circulation of blood on the tip of the thumb. We brought him here to the Tibetan Hospital. As we entered the examination room we looked around: a bucket of sludge in the corner was filled with cigarette butts, the surfaces (walls, floors, countertops) were covered with a layer of grime undoubtedly years thick, needles were stuck in an open coke can. As a researcher I knew that these were common conditions in

[4] To the best of my knowledge, most monastic education still does have a component of medical study.

many hospitals throughout China. But as a parent whose child was sick and in need of medical attention, I was seriously worried.[5] With a bit of trepidation we watched as the doctor cleaned the skin around the blister and then opened it up to drain out the pus. Our son screamed (par for the course) but the procedure was quickly over. They bandaged up the sore and we were off. Happily he has not had to go to any hospital in China since this incident. I find it interesting how my own cultural conviction of germ theory leads me to view this hospital as revolting and potentially dangerous while my interest in knowledge of medicinal plants draws me to it.

After our discussion of medical topics ends, we engage in casual conversation. Dr. Ma has a wonderful sense of humor and we often spend some of our time joking. He once asked me if it was true that one could make eight dollars per hour cleaning toilets in the United States. When I answer yes, he says that he will just forget about being a doctor (and all those years of study) and move to America to clean toilets for a living! When I try to temper his enthusiasm about becoming rich in America by telling him how much a bag of potatoes costs (potatoes are a staple in the local Tibetan diet) he jokes that someone could send him potatoes by mail from Rgyalthang and he could make a profit on the ones he did not use himself. Once while we were out driving around identifying plants (and I was commenting on house design) he told me jokingly that Tibetans basically care about two things: having a nice house (the bigger the better) and having nice clothes. I responded with a joke in kind: Tibetans are just like Americans! Many of

[5] My son's illness in 1999, although not serious, caused me to wonder about the wisdom of my decision to do fieldwork in this part of the world. I began to speculate about how I would handle a potentially serious illness if one were to arise. This is something that had never bothered me previous to motherhood in my various travels throughout the PRC. It brought to my attention the interaction between my research and personal life.

the jokes that Ma Liming tells me are ethnic in nature. Dr. Ma is also a shrewd political commentator and seemed to have no reservations, after we became well acquainted, in voicing his opinions to me. This visit with Dr. Ma lasts several hours; sometimes my visits with him are shorter, but seldom are they much longer.

I leave the hospital and walk to the market to buy some vegetables for dinner. At the entrance to the market are groups of Tibetan women selling yogurt, cheese, and butter. The cheese in this area has an interesting cylindrical shape, formed upside-down in cone baskets. It tends to be quite sour and is often served with sugar sprinkled on top. Cheeses range from very fresh and almost soft to quite hard and old, usually with mold on the outside. A few weeks ago we went to our friend's mother's house in Yangthang village and were given a particularly delicious chunk of smoked cheese so I decide not to buy any cheese today. Actually, I tend to buy more goat's cheese from the Lijiang woman's store than Tibetan cheese because I find the former more palatable. Inside, the market is bustling. The bright colors of the vegetables and fruit are in stark contrast to the brown slime on the ground that makes walking quite treacherous. I buy tomatoes, onions, peppers, carrots, cucumbers, and spinach from the woman dressed in Bai clothes—she always has such nice produce. Most of these vegetable and fruit merchants are not Tibetan. The Tibetan merchants at this and the other markets in town tend to sell dairy products, baskets, grains, sometimes meat (yak or beef), and various "Tibetan" goods like ***thangkas*** (Buddhist paintings), jewelry, offering bowls, etc. In addition, a market dedicated solely to mushrooms has a larger concentration of Tibetan merchants (who are often also the mushroom gatherers themselves). Tibetan women also tend to sell seasonal

fruit (apples, wild berries) in the areas outside the inner market and/or on the street. The relegation of many Tibetan merchants to areas outside the central market space seems symbolic of the peripheral status many Tibetans hold in the local business scene.

Since I have a backpack full of food I decide to take a taxi home. I flag down a red VW Jetta taxi and hop in. The taxi drives over bumpy roads, beeping at bicycles and pedestrians as it proceeds. When we reach the gates of the housing complex where I live I give directions to my building. As we circle around the central courtyard I wave to the two old women I often see outside with their grandchildren; I have had only limited conversations with them since they speak very little Mandarin but we exchange smiles and gestures, sharing food occasionally, sometimes just sitting together in the morning sun with kids playing around us. It is five 元 *yuan* (roughly, sixty cents) for any taxi ride within the town limits; I pay the driver and climb the stairs to my apartment. I have returned home from my afternoon of work (later I will work again in my office after my son goes to sleep) and am happy to see the bright smiling face of my son. After dinner we go outside to join other families enjoying the evening. Although not able to speak much Mandarin, my son manages to play with some of the local boys, all older than him by several years. Tonight a spontaneous paper airplane game emerges: white streaks of airplane zoom down from third-floor stairwell windows and a dozen children are rushing about making airplane noises. Later a few of these boys will ask us what it is like to ride on an airplane and how long it takes to get from America to China. They will look at us in disbelief, eyes widened and alert, as we explain our itinerary. For now they are immersed in a world of exploration; I bask in the revelry and the innocence.

THEORETICAL ORIENTATION

In order to understand medicinal plants, how they are related in a system of classification, you must understand Tibetan medicine. Only then will the classifications truly make sense.

This was an idea conveyed to me by numerous doctors of Tibetan medicine during my fieldwork in Rgyalthang. I was told this during my first visit to the area in 1999 and occasionally thereafter for the next several years. This concept has guided the creation of the present dissertation. I have extended the notion of context-dependence not only to the larger system of Tibetan medicine, but also to the social and cultural milieu in which plant classifications and Tibetan medicine occur. To this end, the present work is an ethnography of classification, an exploration of the contours of plant classification among Tibetan doctors in Rgyalthang. First, it explores the ethnic and linguistic context of medical practice and medicinal plant classifications, which happen in the course of medical practice, in Rgyalthang. This context is part of the consciousness of Tibetan doctors, I argue, and must therefore be examined in an exploration of their cognitive worlds. Second, medicinal plant classifications, and perhaps more importantly the *act of classifying*, has an important function in conveying crucial cultural and philosophical orientations of Rgyalthang doctors. By utilizing medicinal plant classifications that are particular to the Tibetan medical system, Rgyalthang doctors are expressing their identities as doctors, Tibetans, and, perhaps most importantly, Tibetan doctors of Tibetan medicine.

Because of its comprehensive approach, this dissertation combines a number of important areas of study in anthropology: ethnobiology, ethnicity studies, linguistics, ethnomedicine, and cognition. It is fair to say that the overall theoretical orientation of the present work is rooted in ethnobiology, although this work takes perhaps a different approach than most ethnobiological works that focus on classification in that the socio-cultural context is considered just as important a focus of study as the classifications themselves. In this sense, the essence of this dissertation is perhaps closer to that of more recent ethnoecological studies, which tend to highlight the importance in understanding worldview and cultural values toward the natural world.[6] Yet in the present work a central interest in classification remains (more typical of ethnobiological studies), due either to the steadfastness or the stubbornness of the author in maintaining the original focus of research.

Much of the information in Tibetan medical texts is codified as classifications. Not only are plants, disorders, and human bodies organized taxonomically, but so are types of diagnoses, doctors, and surgical instruments. I was not actually aware of this aspect of canonical texts until after I began my research but it has made my interest in classifications seem sensible—both to myself and others—within the Tibetan medical tradition.[7] Yet my sensibility to the significance of classification was cultivated in large part through being immersed in the work of Rgyalthang doctors and learning from them

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[6] See for instance Fikret Berkes' *Sacred Ecology: Traditional Ecological Knowledge and Resource Management.*

[7] It is interesting to speculate why such organization exists in the texts, the earliest (and most central) of which dates back to the 8th Century. My conjecture is that since parts of these texts were, and still are, committed to memory, having a taxonomic structure is helpful to the process of memorizing. I discuss the role of memory and literacy below in Chapter Four.

the important connections between plants, Tibetan medicine, and the context in which classifications occur. In order to more fully appreciate this point, I next turn to an examination of the study of classification, particularly in the field of ethnobiology.

Classification in ethnobiology

The subject of classification has been of interest to some anthropologists since the early days of the discipline. One of the earliest works to focus on classification of the natural world is *Primitive Classification* (1963 [1903]). In this piece, Durkheim and Mauss argue that the model for classification of the natural world is society itself. Thus if one examines the system of classification and divisions (political, familial, economic) within a society, one can see that this is projected onto the natural world. This argument, although perhaps gravely flawed in methodology and logic, inspired much anthropological work on classification in the first part of the 20th Century (e.g., Kroeber 1917) and has been revisited, and revised, in some works that focus on classification of natural kinds. An equally important anthropological study of classification is Lévi-Strauss' *The Savage Mind* (1966 [1962]). Lévi-Strauss, in contrast to Durkheim and Mauss, postulates that classification is part of the innate cognitive ability of humans and that cognition of the natural world is not a reflection of social order but rather of the human mind. This emphasis on a universal human affinity for classification is the cornerstone of cognitive anthropology, which has its roots not only in the work of Lévi-Strauss (and even late 19th Century anthropologists), but also in that of cognitive psychologists such as Piaget (1985 [1975]) and Sperber (1996).

It is in the sub-field of ethnobiology, however, where interest in natural-kind classification has significantly blossomed. Research conducted in various parts of the world has yielded impressive amounts of data. Theories about human cognition of natural kinds, universal and culturally particular ways of ordering the natural world, intellectualism vs. utilitarianism in the role of classification, and the significance of constructionist points of view have all entered into the field of ethnobiology. In order to understand how this dissertation is placed within the field, I provide a brief overview of some important theoretical orientations and discuss how these relate to the present work.

A principal point of inquiry for many ethnobiological studies has been whether humans divide up the natural world in relatively similar ways or not.[8] Brent Berlin (1992) has argued that while social and cultural realities can be divided up arbitrarily (according to convention), the natural world cannot. He states, "...human beings everywhere are constrained in essentially the same ways—by nature's basic plan—in their conceptual recognition of the biological diversity of their natural environment" (Berlin: 8). Based on this premise, and on comparative studies of natural-kind classifications, Berlin argues that there is a fairly consistent cross-cultural pattern of classification in the domain of natural kinds; such a pattern includes regularities of both taxonomic and nomenclatural structure. The focus of much of Berlin's work has been formulating universal principles,

[8] In terms of reconciling the divide between universalist and cultural particularist approaches, Scott Atran (1998, 1999) has argued that taxonomic structure of natural-kind classification may be universal but that categories of natural kinds may nonetheless be influenced by culture. That is, the cognitive predisposition of humankind may be to classify in fairly consistent structural patterns, but the units within these patterns (i.e., categories) may vary depending on cultures. Cecil Brown (1985) has maintained that mode of subsistence is a substantial factor affecting classification and in so doing has incorporated both universalist and particularist views. If mode of subsistence can affect classification, this may account for cultural variation (mode of production is part of a cultural matrix) as well as universal potential (all things being equal, people with similar modes of production will classify the world in similar ways).

which include principles of categorization (conceptual organization of natural kinds) as well as nomenclature (naming patterns), which describe cross-cultural similarities in natural-kind classification (Berlin, Breedlove, and Raven 1973; Berlin 1973; Berlin 1992). Berlin contends that these principles are consistent across cultural boundaries because of the inherent structures of both nature and the human mind: "This pattern-recognizing ability is probably innate," he argues (Berlin 1992: 9).

Berlin's focus has been on what he terms "general-purpose" categories of natural kinds. Such categories are those derived from a broad spectrum of flora or fauna; these categories are defined not by having any *particular* functions or purposes (although the members of these categories may indeed have particular functions, just not all the same), but by being instead of "general" function (which is to say, not one function in particular). It is in the utilization of general-purpose categories, Berlin argues, that humans cross-culturally show their propensity to order the natural world in similar ways (which is similar to the way in which modern science orders the natural world). Since the items of study that fall into general-purpose categories have not been singled out because they serve a specific function (for food, ritual, or medicine, etc.), Berlin argues that such categories are based on multiple characteristics, often morphological. The level at which general-purpose categories seem to have the most salience is the "folk generic" or "basic object" level of analysis (Berlin 1973, 1992; Rosch 1978).[9] The reasoning usually given

[9] Berlin's "folk generic" level is roughly equivalent to the level of species in western science. Hence English "lentil" can be analyzed as a folk generic, equivalent to the botanical designation of *Lens culinaris*. The correspondence is not always perfect, however.

for such salience is that folk generics (and scientific species) are the result of the evolutionary process and represent "discontinuities" in nature.

"Special-purpose" categories, on the other hand, Berlin argues, are categories that consist of items for particular (thus "special") purposes. A study of medicinal plants and their classifications, therefore, is a study of special-purpose categories, since the medicinal uses of these items single them out as serving a particular purpose. Such categories are most salient at the "suprageneric," or "higher-order" level of classifications—that is, classifications above the folk generic/scientific species level. Berlin argues that research focused on these types of classification is limited in what it can add to theorizing about natural-kind classifications since it is not a general survey of all natural-kind knowledge but only a fraction of it—and often among experts (Tibetan doctors, for example).[10] While such studies may offer interesting glimpses into cultural life, Berlin questions whether they can add significant insight into ethnobiological classification:

> Given the broader picture that has emerged of the nature of intermediate taxa for both the plant and the animal kingdoms, it is debatable whether these special purpose groupings should be considered as part of the general system of ethnobotanical classifications at all. It is reasonable to suggest that they might better be described as part of a cross-cutting system of classification based on considerations of their economic or cultural significance, for example, trees useful as fuel, medicinal plants, and so forth. (Berlin 1992: 152)

Berlin recognizes that there are a number of ways in which humans may order natural kinds. However, he maintains that one pattern, known as the "natural system," is more

[10] This distinction between general- and special-purpose has also been cast as inductive vs. deductive and polythetic vs. monothetic, respectively. See, for example, Hunn 1976, 1982.

significant than others. I quote at length to provide a clear sense of how Berlin establishes his argument:

> ...it is clear that biological diversity can be organized in several different ways. *Some of these different ways, though, are more revealing than others* [emphasis added]. A classification of plant species based on but a few characters, such as the presence or absence of presumed medicinal properties in the plants, will surely capture a portion of the patterns of variation in nature. However, a much larger fragment of nature's structure will be revealed when greater numbers of more general characters are focused on in the formation of groupings of organisms. In other words, some classifications will be more general than others in that a greater number of possible perceptual parameters will have been used in recognizing the affinities of any particular group of organisms in nature. These more general systems of classification will be largely unconscious because they reflect groupings that suggest themselves to the human observer as perceptual givens, as clusters and clumps so well defined in their overall structure and content as to be immediately obvious and, in the main, perceptually unambiguous.
>
> Thus the ethnobiological data to be presented in the following sections will lend support to the claim that, *while human beings are capable of recognizing many distinct patterns in nature's structure in general, in any local flora or fauna a single pattern stands out from all the rest* [emphasis added]. This overall pattern has been referred to by systematic biologists as the *natural system.* The natural system becomes manifest presumably because of the human ability to recognize and categorize groups of living beings that are similar to one another in varying degrees in their overall morphological structure, or morphological plan. This pattern-recognizing ability is probably innate. (Berlin 1992: 9)

The interesting question, of course, is *to whom* does this single pattern of the natural system stand out as the most revealing? To the ethnobiologist it does—or at least to some ethnobiologists. Clearly it matters what one's focus is.

The present study is concerned with the classifications of medicinal plants by Tibetan doctors of Tibetan medicine in Rgyalthang. It is therefore focused very specifically on what has been termed special-purpose, suprageneric classifications. That is to say, the classifications discussed in this dissertation are concerned mainly with higher-level groupings of named plants—how plants (folk generics) are arranged into

groups (supra- folk-generic classifications). Hence it does not focus analysis on the folk generics themselves (although I do discuss this briefly in Chapter Five when examining Tibetan and Chinese names for plants) and is therefore not a study of general-purpose classifications. Special-purpose classifications have been largely understudied in the field of ethnobiology; this study hopes to add important insights about the significance of such classifications to the broader field of ethnobiological classifications. In particular, I would like to suggest that the omission of function as a defining characteristic of general-purpose classification studies is a methodological flaw. As utilitarian arguments have indicated (see esp. Hunn 1982), the privileging of taxonomies and systems of classifications in ethnobiological theory is surely a product of the intellectualist-oriented scholar. It is not so much that "natives" are not intellectual—after all, there are "native" intellectuals—but that any system of natural-kind classification that is *applied for subsistence or livelihood* is by default concerned with function. I would like to suggest that studies of general-purpose classification, (which rely on broad surveying, and which Berlin argues are crucial to theorizing about whether humans divide up the natural world in similar ways or not) is usually devoid of significant consideration of and interest in socio-cultural context. This lack of context, it seems to me, creates significant problems for ethnobiological works. To discuss this more fully, I now turn to a body of theory that is sometimes referred to as the "relativist" stance in ethnobiology—usually in contrast to the more "universalist" stance taken by Berlin and some of his associates.

In contrast to Berlin, Roy Ellen (1979, 1986, 1993) has argued that what is interesting about classifications of natural kinds is not their reflection of human cognitive

potentials but the ways in which natural-kind classifications vary from culture to culture. Ellen argues that "...all classifications are discursive practices situated in a given social matrix and general configuration of knowledge and ideas...they are products of specific histories..." (1979: 17). In this view, natural-kind classifications are significant as culturally particular expressions. Ellen and Reason's edited volume titled *Classifications in Their Social Context* is focused on understanding the "specific histories" of various natural-kind classifications—the ways in which classifications of the natural world vary in different cultural settings. Ellen (1986) urges for a reconceptualization of the study of classification; such a new configuration he terms "prehension":

> Rather than documenting taxonomies or other kinds of classifications and categories as so many butterflies (Leach 1961: 2), it is necessary to focus upon the processes which generate them; not detached cognitive processes, but those rooted in particular situations. To distinguish it from the arid abstraction of the notion of classification, we might call this *prehension*. Prehension refers to those processes which through various cultural and other constraints give rise to particular classifications, designations and representations.... Prehension stresses the situational bias of classification, whereas *cognition* and *perception* suggest purely cerebral processes....
>
> The structure of prehension is as follows. People bring to situations in which classifying activity takes place, and from which verbal statements about classifying behavior result, information of diverse kinds acquired through both informal and formal socialization experiences of the world in general and of earlier classifying situations. How they then classify depends upon the interplay of this past knowledge...with the material constraints of the classifying situation, between conscious and subconscious, the purposes of the classifying act, and the inputs of others. Thus, thinking, saying and doing are not separate activities but inter-penetrating ones... (Ellen 1986: 91)

Ellen's work highlights the importance of context; he synthesizes his theoretical ruminations with fieldwork in *The Cultural Relations of Classification*, where he again emphasizes the significance of context:

> The problem with decontextualization is not simply that it isolates classifications from the rest of culture and thus presents us with something that is abstract, but that by shedding extraneous cultural information it presents us with the illusion that knowledge consists merely in understanding resemblances (cf. Foucault 1970:111). In other words, it is a complete reversal of the ethnoscience position in which an adequate description should provide enough information to know how to perform in a culturally acceptable manner. If the decision is made to isolate classifications as formal systems, treating each as a separate universe of discourse after the fashion of a mathematics which can be used for any description, we reduce classification to the realm of technical procedures, and taxonomies can easily be shown to be adequate descriptions of that reality. The elimination of context enables the assumption that what is being examined is, in fact, a formal *system*. Identifying a taxonomic, or any other classificatory system, [sic] is just like identifying a religious "system" in a tribal society; it is always possible to isolate it if you want to, but to do so may lead to a complete misunderstanding of its structure, function and position in the social and cultural fabric. Social and cultural anthropologists, of all people, cannot make this assumption... (Ellen 1993: 221)

Roy Ellen is not alone in the field of ethnobiology in his emphasis on context, although he may give the subject more focus than most. Eugene Hunn (1975, 1976, 1982; see esp. Hunn 1990, Hunn and French 1984) has shown the importance of research grounded in ethnographic fieldwork that is attentive to the local cultural context. Hunn and French (1984), for instance, highlight the important cultural aspects of naming patterns and taxa recognition among Sahaptin speakers, arguing that taxonomic hierarchy in classification and nomenclature does not typify Sahaptin classifications but that a system based more on coordinated "kinship" does. J. W. D. Dougherty (1978) argues that taxonomic ranks with the most salience within a classificatory system will vary depending on the cultural significance of the given domain. Hence attention to the importance accorded to a particular domain of natural kinds may vary cross-culturally and the presumption of a taxonomic rank that is the most "basic" cannot be established without careful investigation of cultural context. Ralph Bulmer (1967), in one of the

earliest ethnobiological works to emphasize the importance of context, effectively problematizes the cultural complexities involved in classification of natural kinds. In order to understand the Karam classification of the cassowary (as not a bird), one needs to comprehend the special status of the cassowary in Karam life, Bulmer argues.

This emphasis on the importance of context, and Ellen's general call for a re-imagining of the study of classification as a study of prehension, is central to the theoretical orientation of this dissertation.[11] The present work does not attempt to answer the question of whether humans divide up the natural world in similar ways or not. This is because in part the current study is not comprehensive enough to answer such an enormous question (or provide evidence to either support or refute such a notion) but also because the significance of the present work—which evolved in large part through the process of fieldwork and learning from Tibetan doctors themselves about their notions of plant classifications—is in its rich contextualization of medicinal plant classifications.

The interest in general studies of natural kinds is understandable; it tells us much about how people organize the natural world. It provides insight, some would argue, to the ways in which humans function as biologists. It is the key, some might claim, to the field of ethnobiology—the study of the *logos* of *bios* (literally, the logic of life—biology) by *ethnos* (a people). Berlin's argument about universal tendencies of classification rests in part on the idea, "When human beings function as ethnobiologists...they do not construct order, they discern it" (1992: 8). And yet while all humans *can* function as

[11] Although it is important to note that I do not adopt Ellen's term "prehension." "Cognition" and "cognitive" to me do not necessarily denote strictly "cerebral" processes but include the important socio-cultural ones that Ellen describes.

biologists, how many actually do in their daily lives? Certainly the doctors with whom I studied can organize the world similar to the way a biologist might, but it is not part of their habit to do so in most instances. It is not a useful approach for them to take. In studying general-purpose categories, disconnected sets of classification (held together merely by existing in the "natural world"[12]) are revealed. In choosing a large set of flora or fauna to work with, general-purpose studies remove natural kinds from particular systems of knowledge and from particular contexts. Thus they become floating classifications that at times seem to make sense in connection to the mind, at other times to the body. What I am arguing for is a return to holism through an odd turn. By studying natural kinds with particular purposes (food, fodder, beasts of burden, medicinal plants and animals, building materials, etc.),[13] we can more readily understand how the classifications within these categories—as well as the categories themselves—link into other systems of knowledge.[14] In this dissertation I hope to offer an alternative approach to the study of classification—one that brings us closer to connected systems of knowledge as well as the lives of particular people doing particular things with natural kinds at particular times and places. In essence mine is an attempt to understand the contours of classification in this setting and not to conduct an exegesis of natural-kind

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[12] I am not reacting here to the fact that we have set the parameters of "nature" before we have begun the investigation (any good investigation must set *some* parameters), although some might argue that we need to conduct more investigation on what counts as "natural kinds" in each cultural setting.

[13] This is not to say that a study of "fodder" or some such equivalent would necessarily be as productive as a study of something like medicinal plants. Additionally, these special-purpose categories would need to be determined from within the cultural context.

[14] Ellen refers to this as the "integration of semantic fields" (1979: 16). Although I had read Ellen's work before beginning fieldwork, most of it did not make much sense until after my return and during the process of formulating the orientation of this dissertation. In other words, I did not begin this project with attempting to apply Ellen's ideas but as the project began to take shape, I found resonance between my own thoughts on the subject and those of Roy Ellen's.

classification in order to provide evidence for one hypothesis or another in ethnobiology and anthropology.

Socio-cultural context

In providing the important social and cultural context in which plant classifications occur, in this dissertation I focus especially on ethnicity and language. Chapter Two discusses the extent to which Rgyalthang is being continually constructed as a Tibetan place in a nation that is openly conscious of ethnic differences. Although a multi-ethnic area, much of this diversity is masked by the designation of Rgyalthang and the surrounding areas as a Tibetan Autonomous Prefecture. A renewed investment in this identity has taken the form of a name change, physical features on the landscape, and architectural touch-ups on buildings in Zhongdian Town. I argue that ethnicity is essentially part of the *habitus* of Tibetan doctors and is therefore a crucial aspect of their worlds that needs to be accounted for in the present study.

In Chapter Three, I highlight the extent to which knowledge of plants and medicine is intricately connected to ethnic identity among the Tibetan doctors with whom I worked. In particular, I discuss the linkages between the state discourse of "ethnic medicine," and the local perceptions and practices of Tibetan medicine. In Chapter Three I also provide profiles of the doctors with whom I studied and in so doing, ground the present work in the actual lives and practices of these doctors.

The focus on language in Chapter Four consists of several parts. First, I examine the crucial role of language identity in Rgyalthang and the status of literacy in the area. I

continue on to discuss the role that the literacy of Tibetan doctors plays in the discourse and utilization of plants and medicine. The important connection between literacy and medical texts is in many ways a defining characteristic of Tibetan medical professionals. I next analyze the implications of Tibetan-only language use for the linguistic relativity hypothesis. I argue that although the present study is focused mainly on an analysis of lexicon, or more specifically nomenclature in plant and disorder classifications, an important significance of this lexicon is *how* it is utilized by Tibetan doctors (specialized Tibetan lexicon in conversations) and the ways in which this lexicon is *situated* in the cultural knowledge system of Tibetan medicine (as reference points in medical texts). The present work does not attempt to demonstrate how language influences thought, although it is suggestive of such an effect. More importantly, the present work explores the context in which apparent misfits between Chinese and Tibetan lexicon occur and attempts to understand how Tibetan language, both spoken and written, functions in classifying plants and disorders for Tibetan doctors. Hence the greater significance of the present work lies in its contextualization of language in terms of usage and discursive function in the cognitive world of Tibetan doctors.

Additionally, in examining plant classifications (Chapter Five), I find it productive to look at the slippage between signifier and signified within Tibetan classificatory nomenclature because it indicates the extent to which language is a fluid system of signification. In analyses of classification, there is a tendency to work with lexemes of present-day usage. For Tibetan doctors, however, plant classifications are to a large extent rooted in medical canons that date back to at least the 8th Century. Since

these canons constitute an important element of their medical curriculum, and because they are at least in part committed to memory, they figure quite prominently in the classificatory schemas that Tibetan doctors use at present. Yet there is some discrepancy between these texts and it is interesting to investigate the ways in which such variability is managed cognitively.

The target domain: medicinal plant classifications

Chapters Five and Six are each specifically about classifications: first plants and then disorders. Having established the socio-cultural context within which these classifications occur, I then turn more specifically to explore the point made by Tibetan doctors (and summarized in the opening to the theoretical orientation of this Introduction) about how plant classifications need to be understood in relation to other aspects of Tibetan medicine. Chapter Five is a lengthy exploration of plant classifications above the basic level (Berlin's "folk generic" rank). First I discuss the importance of plants in the Tibetan medical system. Then I examine a number of different schemas, including those that emerged from pile sorts and those that are presented in medical texts, and indicate that many of these different schemas have a similar functional goal. I discuss possible explanations for the uses of these various schemas and I reiterate the importance of canonical authority (through plant classifications) for Tibetan doctors.

Chapter Six examines the classification of disorders, relying mainly on medical texts since I did not spend an extensive amount of time discussing this with Tibetan doctors during my fieldwork. In this chapter, I also discuss the linkage between plants

and disorders and their classifications. I argue that there is a type of cosmological ordering in Tibetan medicine that is reflected in plant and disorder classifications and that such an ordering is exemplified in part through discursive language. In the Conclusion to this dissertation, I tease out the important connections between the ethnic, linguistic, and classificatory threads that run through the present work.

Context, function, and experiments gone wrong

The opening "thick description" of this chapter has three objectives. First is to provide the reader with some of the sights and sounds of Rgyalthang, and to locate the present work in a community. In this vignette, I introduce the doctor with whom I worked most closely in Rgyalthang (Ma Liming), and place myself in his company, at his office, under his tutelage. Secondly, it is a foreshadowing of the important points raised in this dissertation: the construction of Rgyalthang as a Tibetan place and the ethnic consciousness among the populace of Rgyalthang (including Tibetan doctors), the particular use of language in my conversations with doctors, the historical connection between Tibetan medicine and religion, the role of texts in Tibetan medicine, and the important argument of the inter-linked nature of plant and disorder classifications and knowledge systems. Finally, I intentionally write reflexivity into this initial narrative. I provide an example of my own learning during fieldwork and openly reveal my prejudices and affinities. While this self-reflexive style does not typify the entire dissertation, I find that it is appropriate and effective as an overture, for it provides an opening (a beginning, and an opportunity for access) to the present work and its author.

In closing this first chapter, I would like to present another vignette (written in the past tense) that in part shows my methodological failings but also proved to be a formative experience for the theoretical orientation of the present work. I begin with a discussion about the importance of function in ethnobiological studies.

Hunn (1982) has maintained that utility is an important factor in how people divide up the natural world, since in any given culture there will be natural kinds that are not linguistically marked in any significant way ("That's just a weed"); these unmarked, "residual" categories are those with taxa of little utility, whether that utility be economic, religious, or otherwise cultural. Since medicinal plants by definition have a particular use, I have found that the importance Hunn and others (e.g., Morris 1984, Ellen 1993) have attributed to utility is important in understanding the way in which these plants are organized (in large part, according to the disorders that they treat) in the cognitive world of Tibetan doctors.

Corley, et al (1999) have argued that in order to understand how classifications are actually utilized we must study logical reasoning and inference skills. They have shown that reasoning skills vary from the use of formal deductive logic in American college students to inductive reasoning based on site-specific ecological knowledge in Itzaj Maya and American tree experts.[15] During the course of my fieldwork I was especially intrigued by the assertion of Corley, et al that the way in which classifications are utilized should be an important factor in studies of classifications. A story I can now

[15] This work is especially interesting because it cuts across cultural boundaries ("American") to show that occupational or educational expertise is perhaps a more significant factor affecting reasoning skills than "culture" *per se*.

tell about myself provides a good example of the importance of understanding cultural context as well as the function of natural kinds.

Of all the people with whom I had contact with during my eleven months of fieldwork, the one who seemed to have the most understanding of my research objectives was my main consultant, Dr. Ma Liming. Since he seemed very much in-tune with my interests in classification (he had recommended useful medical readings and we had spent time discussing this) and because he seemed to have an incredibly sharp mind, I felt quite confident in asking Dr. Ma to work on several diversity-based reasoning tasks that I had developed, modeled on those discussed in Corley, et al (1999). What I had done was take the information given to me in Ma Liming's pile sorts (the sorts were a compilation of the nineteen most useful medicinal plants mentioned by five area Tibetan doctors, see Chapter Five) to create the reasoning tasks. These tasks asked the following about a hypothetical plant disease: "Disease A affects plants x and y; disease B affects plants a and z; which disease (A or B) is most likely to affect other plants?" Disease A would consist of plants from one pile sort while disease B would consist of plants from two different pile sorts. As Corley, et al discuss, the diversity-based principle predicts that the disease that affects a pair with the most diversity (a and z) will be chosen as the disease most likely to affect other plants. So, for instance, if disease A affects watermelon and cucumbers while disease B affects birch trees and mint, reasoning based on the diversity-based principle would lead one to chose disease B as the disease most likely to affect other plants, since the pair of birch trees and mint is more diverse than watermelon and cucumbers. What Corley, et al discovered, however, is that often people with specialized

knowledge will choose the pair with the *least* diversity. Their decisions are based not on abstract principles of classification but on knowledge of local ecology, species interaction, plant distribution, etc. Although this exploration of reasoning skills was not essential to my fieldwork, I was incredibly curious to see how local doctors would reason about medicinal plants. I decided to try this task with Ma Liming

I typed up the questions in Chinese, although all plant names were given in Tibetan.[16] I presented the questions to Ma Liming and explained what I wanted him to do. He read through the questions but responded that he did not understand (我不太懂 *wo bu tai dong*). So I explained again, *without* giving too much explanation about how the hypothesis predicts that the pair with the most diversity would be picked but that perhaps because he has specialized knowledge he might pick the other pair. Next he stated that they would not use any of these plants if they were diseased—they just would not collect them at all. I explained that I was not asking which he would use, but that this was a way for me to understand how he thinks about plants. So he looked at the questions again. Then he said, "We aren't concerned with plant diseases but with people diseases! (我们不管植物病, 就管人民病! *Women bu guan zhiwu bing, jiu guan renmin bing*!)" Laughing as he said this, he suggested I should interview a plant specialist instead of him. I said that although he was not a botanist or someone from the forestry bureau he knew a lot about plants and had spent much of his education of becoming a doctor in learning

[16] One may ask why the questions themselves were not in Tibetan. First of all, my Tibetan writing skills are fairly rudimentary. Secondly, Ma Liming and I always conversed in Mandarin—since my spoken Rgyalthang Tibetan is also too rudimentary for effective communication—although most medical terms and all plant names I learned in Tibetan. All doctors of Tibetan medicine are schooled in Tibetan and medical exams and texts are in Tibetan. Therefore, quite often Tibetan doctors only know medical terms and names in Tibetan, not Chinese. I discuss this role of language further in Chapters Three and Four.

about plants. He agreed, but stated that he still did not understand the importance of my questions. I said we would try another time, that I would think of some other way to explain it to him (again, without "giving away" what it was I was really looking for). Another attempt failed, and just produced more laughter on his part and frustration on mine. I thought about changing the questions so they dealt not with disease—possibly this concept was getting in the way of him thinking about the plants in an abstract way—but with something else. But what else? Properties? And yet it seemed to me that in substituting property A for disease A I was just going to get further into a quandary since Tibetan doctors know an extensive amount about properties of plants and this knowledge would likely distract from the "neutral" character I was searching for. So I gave up, deciding that it was neither worth Ma Liming's time nor mine to persist with this task. Perhaps I gave up too easily, but I felt as if I was pushing my requests to the limits of the reasonable and into the realm of the absurd.

I find this example particularly revealing. In many ways it has become a catalyst for the theoretical orientation that this dissertation has taken. It is a story that I have played time and again in my mind when reflecting upon my fieldwork. What this example suggests to me is the importance of comprehending function—or rather the absurdity that can occur when function is not appropriately considered—as well as context. The "task" I was hoping Ma Liming could complete for me was completely abstracted, out of context, from his *modus operandi*. Although this example is not specifically about classifications (plant or otherwise), the same argument I make about the importance of contextualizing plant classifications can be said of this experiment.

Within the framework of Ma Liming's work as a Tibetan doctor of Tibetan medicine, trying to reason about hypothetical diseases among plants is not a relevant activity—it serves no useful function and overall seemed absurd to him. Although part of me wishes that this experiment had gone off without a hitch and Ma Liming had reasoned one way or another (using diversity-based reasoning or not) about natural kinds, I am thankful that he resisted and laughed at the task I presented to him, for his response triggered reflexivity and contemplation—which reverberate throughout this work—about the aims of my research. Often what appear to be obstacles turn out to be opportunities instead.

Chapter Two:
Ethnicity and the Construction of Place in Rgyalthang

An enormous Buddhist structure marks the southern entrance to the city limits of Zhongdian Town. This structure is known as a stupa: a building that contains Buddhist relics (originally those of the Buddha) with a particular design that includes a base of several tiers, a dome-shaped center, and a central spire.[1] This stupa is among the first sights one glimpses after exiting the airport in Zhongdian (named the Diqing Airport) or entering Zhongdian Town from the south. It is a rather striking sight; the stupa measures approximately twenty-five feet high and is situated in the middle of a traffic roundabout. A curious conflict, with symbolic significance, exists in traffic movement around this stupa. Traffic laws (and signs) indicate that one should travel counter-clockwise around the structure but Tibetan Buddhists generally circumambulate stupas in a clockwise direction. Thus most Tibetans drive around the stupa "against" traffic (see Figures 2.1 and 2.2). I never heard of anyone being ticketed for driving this way but several non-Tibetan taxi drivers with whom I spoke expressed frustration at the situation. I myself was particularly startled once while driving in a car with a friend who drove clockwise around the stupa practically into an oncoming taxi. Although stupas are Buddhist symbols and not exclusively Tibetan, they have come to symbolize Tibetan ethnicity in the PRC, as have many other such symbols of Buddhism. So while the stupa itself symbolizes Tibetan ethnicity, the act of defying traffic laws by driving around the stupa in a pious way shows reverence for the stupa and all that it represents; it is an enactment

[1] Actually, the design of stupas varies greatly from India to Cambodia to Tibet. The basic design I give here represents one of eight Tibetan styles. The Tibetan name for stupa is ***mchod rten***.

of being Tibetan, a dance of identity around a central marker of that very identity. These two opposing movements of traffic (one directed by the state, the other by religious and ethnic affinities) are in many ways symbolic of two rather different conceptualizations of place that are sometimes at odds with one another. This chapter examines these two conceptualizations and the new construction of place that has evolved out of their co-mingling, with consequences for the lives of Rgyalthang doctors.

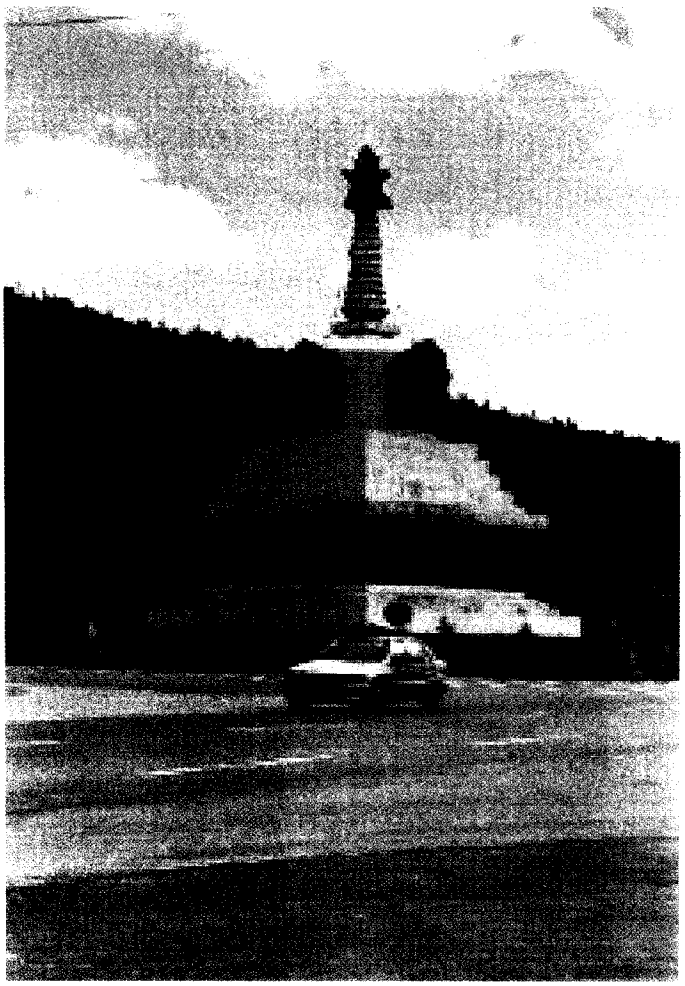

Figure 2.1 Stupa on the south end of Zhongdian town. Note the blue sign (above the car) that indicates the direction that traffic should travel in.

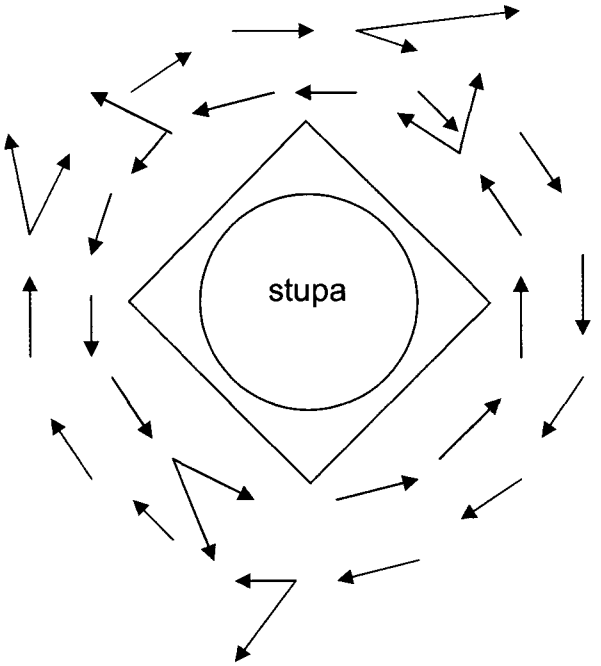

Figure 2.2 Schematic drawing of traffic (in black) and circumambulation (in blue) routes around stupa, south end of Zhongdian Town.

What's in a name?

Rgyalthang is a multi-lingual area, dominated by two main languages: Rgyalthang Tibetan and Mandarin Chinese.[2] Because language is so intimately connected with identity, choice of place names can carry enormous political and social weight. Throughout this dissertation, I use both Tibetan and Chinese place names. I purposefully use Chinese names for political units (county or prefectural seat, county, prefecture, province); the use of Chinese highlights the creation of these political units under the modern Chinese state. I use Tibetan names for cultural and historic areas (Rgyalthang), as well as local place names used by inhabitants. Within the town and outlying areas of Zhongdian there are a number of neighborhoods and villages, which I refer to by their Tibetan names: e.g., Dokar Dzong, Anu Shok, Chu nying. I prefer the Tibetan names to

[2] See Chapter Four for a discussion about the linguistic environment in Rgyalthang.

the Chinese because these are the terms that are locally used by the Tibetan population. In most cases, Chinese equivalents for these small villages are approximate phonetic transliterations. Additionally, utilizing Tibetan names for these localized villages highlights the fact that Tibetans inhabit them; this contrasts with Zhongdian town, where many non-Tibetans live.

My goal in this chapter is to juxtapose three conceptualizations of the area, as embodied in naming practices. These conceptualizations both complement and compete with one another. The first conceptualization that I discuss is of Rgyalthang as an area in the southernmost reaches of cultural Tibet. According to this view, although Rgyalthang may be on the frontier of the Tibetan cultural sprawl, it is a Tibetan place nonetheless. In this discussion, I refer to a written history composed by the cleric Geshe Tenpa Gyaltsen (Dge bshes Bstan pa Rgyal mtshan). This history gives an outline of the administrative boundaries, familiar to Tibetan historical accounts, of the area previous to 1949. Important to the concept of Rgyalthang as a Tibetan area is also the conceptualization of how a sense of place is generated from a Tibetan point of view.

The second conceptualization that I discuss is that of Zhongdian as a county in the Diqing Tibetan Autonomous Prefecture of Yunnan Province, PRC. According to this conceptualization, Zhongdian is an area under the jurisdiction of the prefecture, the province, and ultimately the state. It is one unit among many in the contemporary nation-state of the People's Republic. It is multi-ethnic and its population can be categorized, counted and tallied in terms of ethnicity—all "officializing procedures" (Cohn and Dirks 1988: 224)—by the state. It is named using the standardized language of the nation:

Chinese. Zhongdian (and thus Rgyalthang) falls under the administrative umbrella of the Diqing Tibetan Autonomous Prefecture of Yunnan Province. Since autonomous areas were established in locations of non-Han population concentration, I examine demographic distribution of ethnic groups in the area and discuss what this distribution means in terms of the designation of a "Tibetan" Prefecture. While the geographical boundaries of these two places may be more or less the same, the conceptual boundaries are not at present: one is essentially cultural while the other is political.[3]

Finally, I discuss Shangrila, which is an amalgamation of the Tibetan and the Chinese state conceptualizations. This concept combines the Tibetan sensibility of place, and the important connection to sacred sites, with the state project of mapping ethnicity according to *minzu* and in relation to promoting both national and international tourism in the area.

Rgyalthang: a Tibetan frontier

Rgyalthang is located in the southern part of the area known to Tibetans as Kham. Cultural Tibet consists of three general areas: Dö (literally, "above") Ngari Korsum in the west, bordering on western Nepal, Kashmir, and northern India; Bar (literally, "middle"), consisting of Ü, and Tsang, the area around Lhasa, Shigatse, and Nag-chu[4]; and Me (literally, "lower") Do-Kham, which consists of Amdo, a large part of the present province of Qinghai, and parts of northern Sichuan and Gansu Provinces, and Kham,

[3] This is not to say that cultural and political boundaries are mutually exclusive but rather to draw attention to a significant difference in the way that Rgyalthang and Zhongdian are imagined.
[4] The regions of Dö, Ü and Tsang coincide fairly closely with the present-day Tibetan Autonomous Region (TAR).

most of the current province of Sichuan and the northern tip of Yunnan Province (see Figure 2.3).

Me Do-Kham consists of six plateaus/highlands (***sgang***); Rgyalthang is part of the highland called Bombor. Exact borders of historical Rgyalthang are difficult to discern but the area under the jurisdiction of Rgyalthang seems to have consisted largely of present-day Shangrila County (discussed below) and included some parts of Deqin County to the northwest, Ganze Tibetan Autonomous Prefecture in Sichuan to the northeast, and possibly Lijiang Naxi Autonomous County to the south.[5]

Perhaps more important than territorial boundaries in defining the circumscription of Rgyalthang were administrative clusterings. The scholar/abbot in exile Geshe Tenpa Gyaltsen wrote in 1985 that Rgyalthang consisted of five ***rdzong***[6]: central Rgyalthang (literally, "navel" Rgyalthang: Rgyalthang ***yul lte ba***), Terma rong (present-day Dongwang, C), Yang thang (present-day Xiao Zhongdian, C), 'Jang (the area north of Shigu, C, near the first major bend in the Yangtze), and Rong pa (present-day Nying shar, T, or Nixi, C, area).[7] Geshe Tenpa Gyaltsen's explanation of a greater Rgyalthang area centered on a core, navel town of Rgyalthang (what I refer to as Zhongdian, see below) is one that is corroborated by many Tibetans in the area today. In essence there are two Rgyalthangs: Rgyalthang_1, which refers to the greater cultural (and previously administrative) area, and Rgyalthang_2, which refers to the navel, core town of the greater

[5] See Geshe Tenpa Gyaltsen's *A History of the Rgyalthang Dgon pa Monastic Complex and Its Environs* for a description of borders according to this native of Rgyalthang.
[6] A ***rdzong*** was an administrative unit where the district magistrate was headquartered.
[7] I have Wang Xiaosong (王晓松) of the Diqing Institute of Tibetan Studies (迪庆藏学研究所 *Diqing Zangxue yanjiusuo*) in Zhongdian to thank for helping me make sense of the relation between textual place names and those on current Chinese maps.

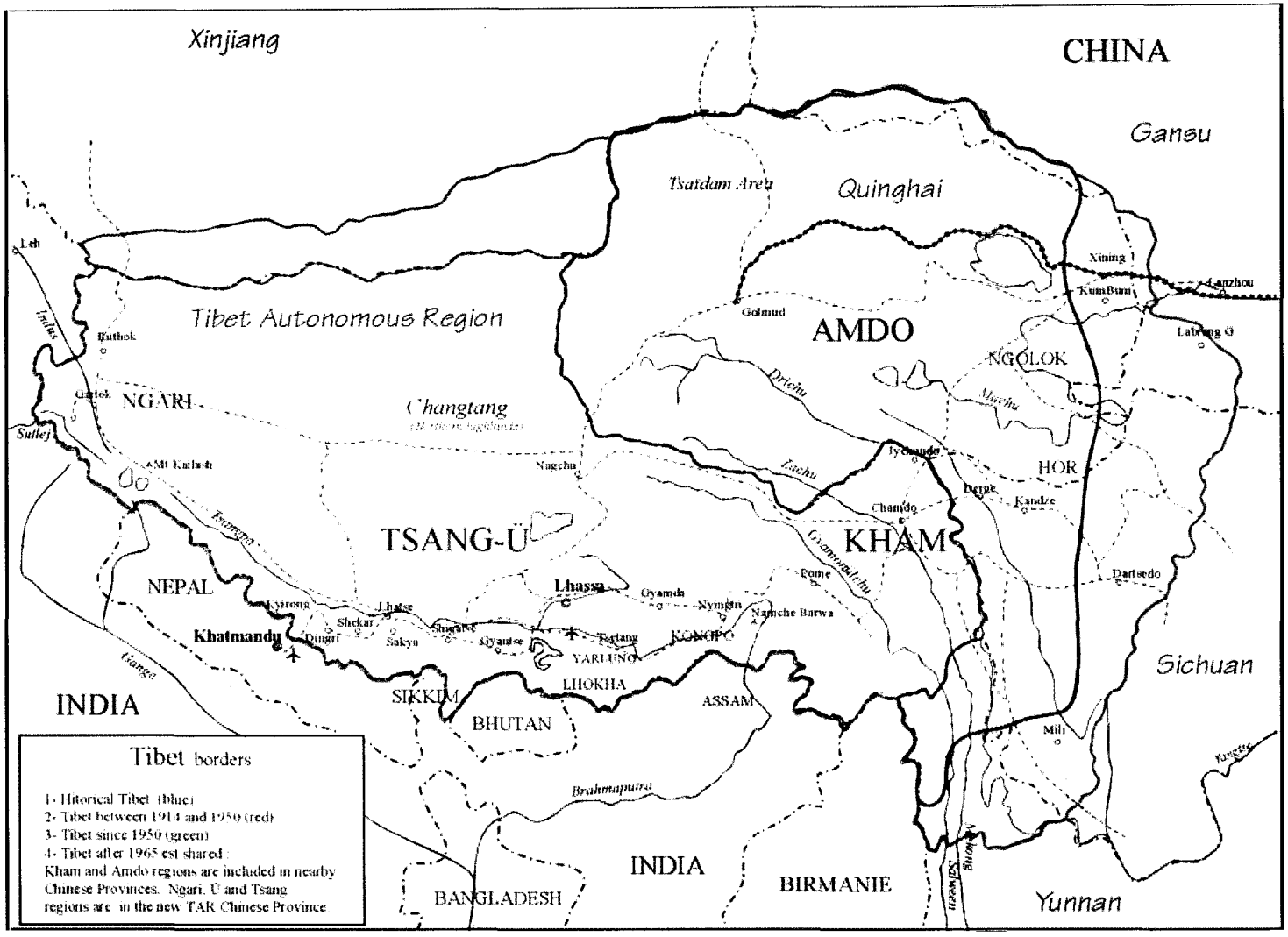

Figure 2.3 Map of Tibetan areas: Dö Ngari, Bar (Tsang-Ü) and Me Do-Kham (Amdo and Kham) Source: Tibet Map Institute

cultural area. Throughout this dissertation, my use of "Rgyalthang" is for the greater cultural area, $Rgyalthang_1$ (see Figure 2.4).

Various interpretations exist as to what the name Rgyalthang means exactly, but the etymology seems to indicate something along the order of "victorious (***rgyal***) plain (***thang***)."[8] Marshall and Cooke (1997), quoting *History of Tibetan Society in Diqing* (迪庆藏族社会史 *Diqing Zangzu Shehuishi*), argue that the Tibetan name of Rgyalthang comes from Dandang (旦当), which dates back to the time of Mongolian rule in the area (13th Century).[9] It is not clear whether the implication here is that the name came from Mongolian, Chinese, or some other language (Chinese characters are used but this does not tell us that the name is definitively Chinese) although the general argument seems to be that the Tibetan name was derived from a non-Tibetan name. *Zhongdian Annals* (中甸县志 *Zhongdian Xianzhi* 1997) states that similar sounding names for the area have been recorded in Chinese annals since the time of the Three Kingdoms (220-265 AD). Given that Tibetans did not arrive in the area until the 7th Century, when troops were dispatched from the center of the rising Tibetan Empire, the name Rgyalthang may very well be a phonetic transliteration of the name used by non-Tibetan inhabitants previous to Tibetan conquest. It does seem questionable, as is asserted in *History of Tibetan Society in*

[8] Geshe Tenpa Gyaltsen gives two possible interpretations as to what ***rgyal*** (victorious) could mean: having a victorious economy (especially in comparison with neighboring lands) or being victorious in maintaining its own customs while being surrounded by other ethnic groups/"races" (***mi rigs***). See Tenpa Gyaltsen (1985): 10.

[9] I have not been able to trace the phonetic connection between Chinese *dan* and Tibetan ***rgyal*** (pronounced in Rgyalthang dialect similar to standard English "jay").

Diqing,[10] that there would not have been a Tibetan name for the area before Mongol rule in the 13th Century. Whether the name is originally Tibetan or not is impossible to know for sure, but generally most scholars seem to agree, as do local residents, that the name was not originally Chinese.

A Tibetan sense of place

From a Tibetan worldview, meaning is inscribed in the landscape through a variety of ritual practices, from making daily incense offerings near the home to participating in pilgrimages to sacred places (Huber 1997, 1999; Lopez 1997; Kapstein 1997; Epstein and Peng 1994; Kolås 2004). In Tibetan cosmology, the land is inhabited by a variety of deities, from local overseers to powerful mountain gods.[11] Pilgrimage is a practice that engages people in traveling on particular circuits through the landscape, circumambulating a sacred place (such as a holy mountain), and making offerings to deities en route. It is a practice that bolsters the relationship between people and the deities that inhabit the landscape. In addition, this enactment of pious worship engenders community (Turner's *communitas*) and shared meaning. Matthew Kapstein discusses the social significance of pilgrimage for Tibetans:

> Pilgrimage...brought persons from far distant parts of the Tibetan world into direct contact with one another and thus militated to some extent against divisive regional tendencies. By ordering the cycles of pilgrimage according to calendrical

[10] I unfortunately have not been able to obtain a copy of *History of Tibetan Society in Diqing* (*Diqing Shehui Shi* myself to examine the argument in full and am relying on Marshal and Cooke's interpretation of this text.

[11] A monk in Ninong Village, Deqin County, once told me that the god/deity (***btsan***) of the nearby mountain ***Khawakarpo*** (***Kha ba dkar po***) is like a party secretary while the local spirits (***klu***) that inhabit the land around residences are equivalent to local bureaucrats. This explanation is strikingly similar to the description of deities in the Chinese pantheon.

> cycles, by establishing the locations visited and the routes traversed, and by promoting specific religious teachings, historical narratives, and symbolic interpretations of the landscape and the events taking place within it, the Tibetan religious world constructed for its inhabitants a universe of shared meaning. (Kapstein 1997: 103)

While pilgrimage may encourage a broad sense of community, Toni Huber (1997, 1999) has argued that local identity for Tibetans is also important, especially within the context of pilgrimage and other social interactions where Tibetans from various areas come together. As Huber states, "...the construction of Tibetan identities is uniquely bound to locality, usually natal or residential place, and in Tibetan society generally, kinship names are replaced by household and village names as terms of designation" (Huber 1999: 178). So while broader religious and ethnic sensibilities are engendered through pilgrimage to sacred sites, identity on a local level is tied more directly to practices at the place of residence.

In her recent doctoral dissertation, Åshild Kolås discusses the importance of daily and annual ritual practices in the lives of Rgyalthang residents. Quoting a Rgyalthang inhabitant, Kolås highlights the conceptual relationship between residents of a locale and local mountain deities to whom many of these ritual practices are directed:

> The mountain owners [***ri bdag*** in Tibetan] were the first to arrive in the area, before any people settled here. They are therefore the owners of the land. When people arrived, the mountain owners welcomed them to the area politely, as if saying 'sit down, sit down.' In this way they told all the people where they could settle. (Kolås 2004: 38)

Thus place is imparted with meaning that links the lives of people who inhabit the land with the ultimate 'owners' of the land; ritual practices reinforce this relationship. From a Tibetan point of view, a sense of place (and the shared meaning about and identity with

this place) is constructed in large part through particular actions and movements of bodies through space.

Zhongdian and the Diqing Tibetan Autonomous Prefecture: a state project

Zhongdian/Shangrila County is one of three counties that form the Diqing Tibetan Autonomous Prefecture (TAP) of Yunnan Province; the other two counties are Weixi Lisu Autonomous County and Deqin County (see Figure 2.4).

In some ways the Chinese names for a few of these areas are parallel to the Tibetan ones. For instance, from 1913 to 2002 the area that generally coincides with greater cultural Rgyalthang ($Rgyalthang_1$) was called Zhongdian County.[12] In addition, the administrative seat/township of this county, although officially named County Town (县城 Xian Cheng) or Central Town (中心镇 Zhongxin Zhen), is generally called Zhongdian ($Rgyalthang_2$).[13] Similarly, Diqing is apparently a Chinese rendering of Tibetan Dechen, as is Deqin, the name of one of the three counties in the Prefecture.[14] Due to the general historical dominance of Tibetans in the area (with the exception of Weixi Lisu Autonomous County, which has received its own dominant-ethnic-group

[12] *Zhongdian Annals* states that Zhongdian (which literally means "middle district") is a phonetic transliteration of the Naxi term for "landowner" (主地 *zhudi*), which was part of the title that the local Naxi ruler of the area adopted during the Ming Dynasty (中甸县志 *Zhongdian Xianzhi* 1997: 46).

[13] Zhongdian (again, officially Central Town) is also the capital of the Prefecture. The area surrounding the town-limits of Central Town is officially called Zhongdian Village (中甸乡 Zhongdian Xiang). For the sake of simplification and according to names used by most locals, I refer to the entire area, Central Town and Zhongdian Village, as Zhongdian.

[14] In Tibetan, the names for both the Prefecture and the County are the same (Bde chen). It is only in Chinese that there is a distinction made in these two names.

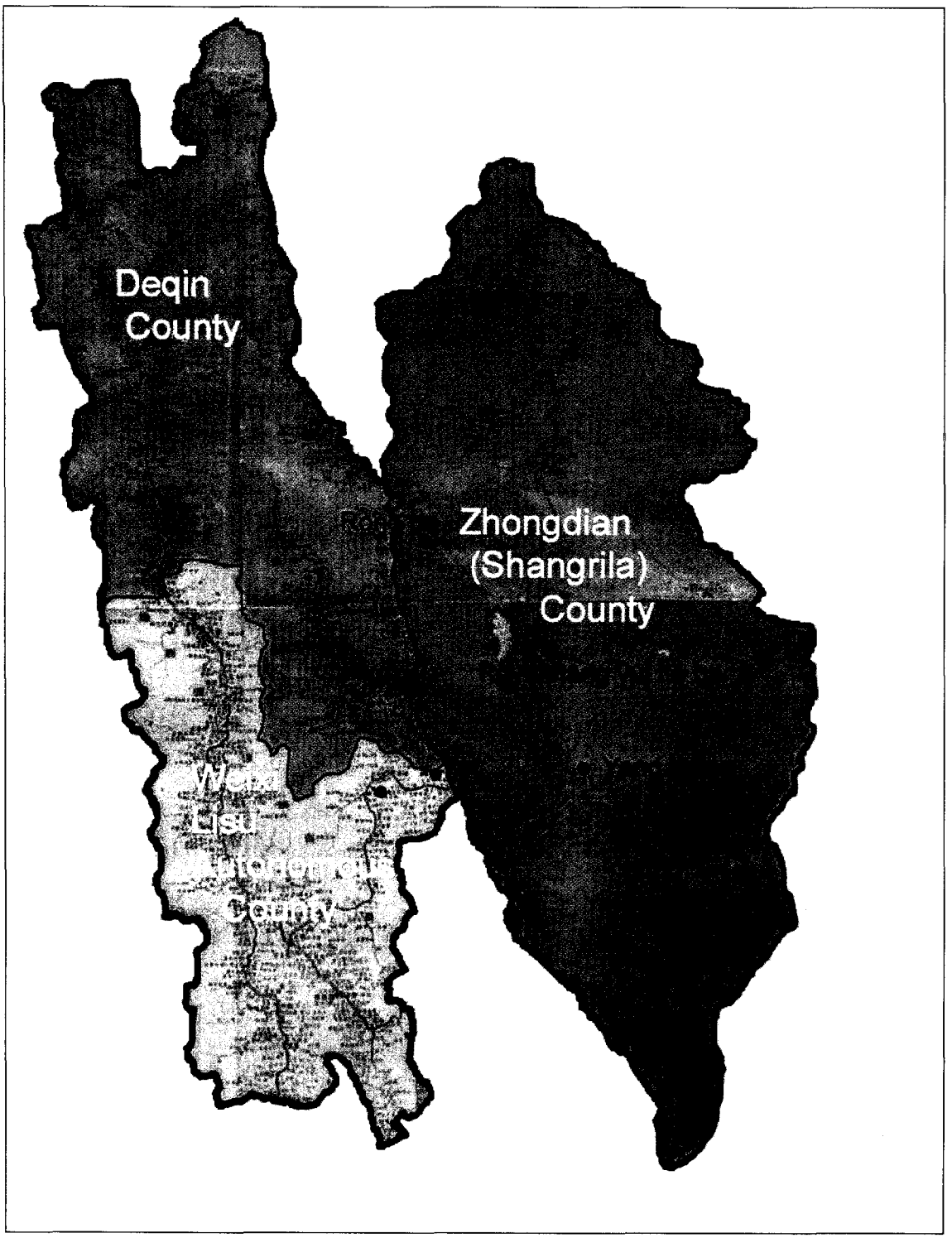

Figure 2.4 Diqing Tibetan Autonomous Prefecture. Names in red are those described in Geshe Tenpa Gyaltsen's history and constitute the greater cultural Rgyalthang area (Rgyalthang$_1$).

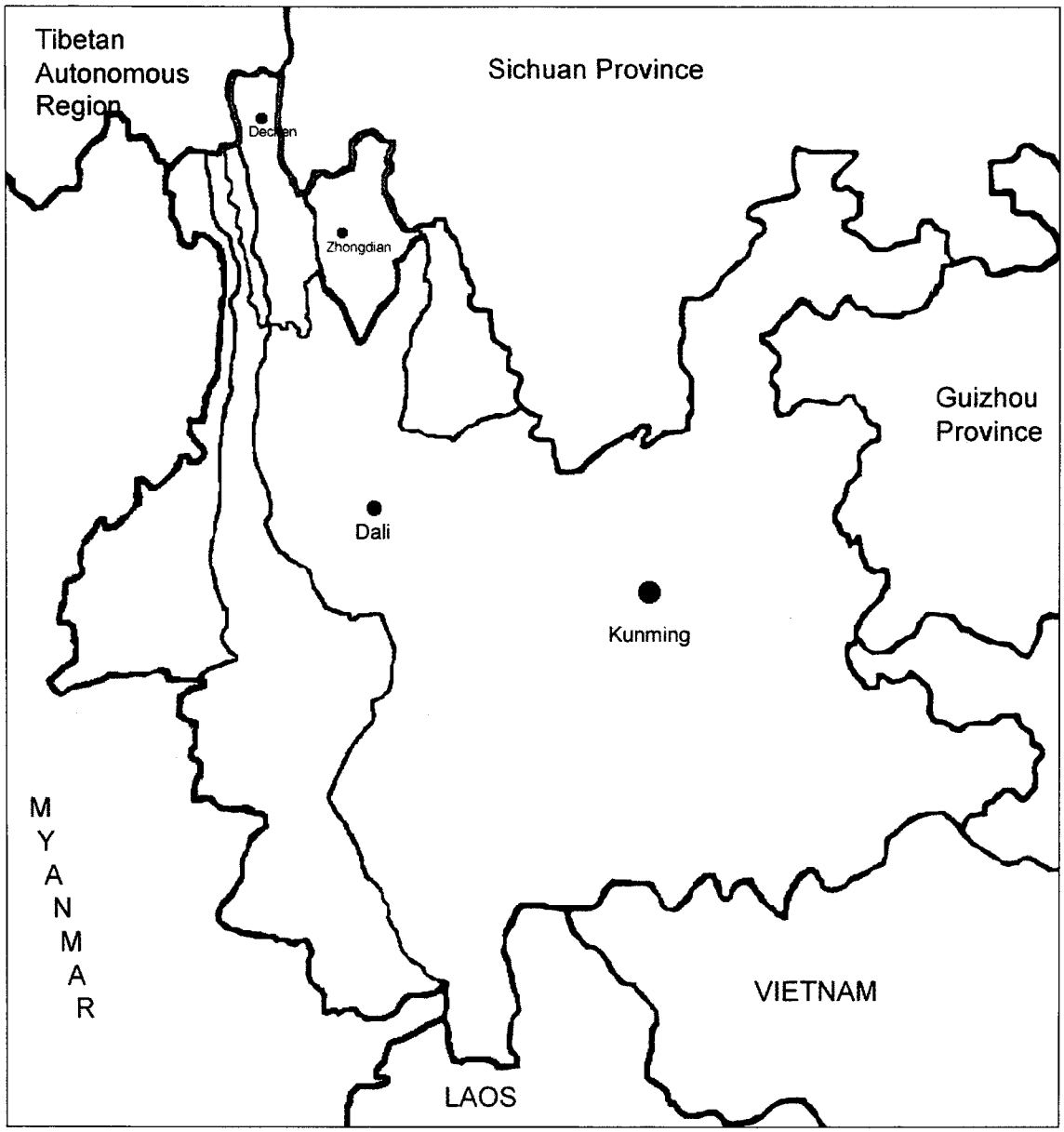

Figure 2.5 Yunnan Province. Diqing Tibetan Autonomous Prefecture is located in the northwest corner of the Province (borders shown in green). Major rivers are shown in blue, provincial borders are in red, and international borders are in black.

designation), Diqing was designated a Tibetan Autonomous Prefecture in 1957.[15]

Located in the northwestern tip of Yunnan (see Figure 2.5), Diqing is the only Tibetan autonomous prefecture in the province. Autonomous areas (regions, prefectures and counties) were established under the People's Republic of China in areas where ethnic minorities (i.e., non Han-Chinese) are (or were at one time) typically demographically dominant, or at least numerous. Such areas theoretically have more autonomy for political decision-making than non-autonomous areas, although the authenticity of this autonomy has often been called into question (see Dreyer 1976; DeGlopper 1990; Deal 1984; Heberer 2001). The general agreement among scholars is that the establishment of autonomous areas was a strategic move on the part of communist forces wanting to guarantee cooperation of people living in frontier regions in the creation of the new Chinese nation. The administrative designation of "autonomous" brings with it certain benefits for things Tibetan. For example, and of great importance for this study, Zhongdian/Shangrila County is home to a state-supported, prefectural Tibetan Hospital (迪庆州藏医院 *Diqing Zhou Zang Yiyuan*; ***Bde chen khul bod lugs sman khang***) where Tibetan medicine is practiced and taught—generally for, by, and to Tibetans.[16] Tibetan medicine, with instruction in Tibetan language, is taught at the local School of Health (卫生学校 *Weisheng Xuexiao*) while Tibetan language is taught at the public Nationalities Elementary School (民族小学 *Minzu Xiaoxue*) and the Tibetan

[15] In 1951 the area had been designated as a Tibetan Autonomous Region, which would have put it on the same level as a province (as is the present TAR), but this designation was later retracted to a prefecture, which falls under the administration of a province.

[16] Deqin County houses a Tibetan clinic (藏医门诊部 Zang Yi Menzhenbu) of the People's Hospital of Deqin County (德钦县人民医院 Deqin Xian Renmin Yiyuan).

Middle School (藏族中学 *Zangzu Zhongxue*). This "privileging" of things Tibetan has had an important effect on the local ethnic consciousness of Tibetans, as I discuss below.

Minzu and demography: technologies of the state

Rgyalthang is an area with a long history of inter-ethnic relations, as are many areas in this part of the People's Republic. Most of these relations are recorded in histories as political ones, highlighting both alliances and confrontations between local groups and imperialist forces. According to these histories, soldiers from the army of the expanding Tibetan empire settled the area in the 7th Century and married local women, probably related to the present-day Qiang in Sichuan Province (*Zhongdian Xianzhi* 1997; Marshall and Cooke 1997).[17] There were skirmishes between Tibetans in Rgyalthang and the ruling Mu clan of Lijiang to the south in the 15th Century (迪庆藏族自治州概况 *Diqing Zangzu Zizhizhou Gaikuang*: 22-4). The alliance struck between Gushri Khan and the Fifth Dalai Lama in the waning years of the Ming Dynasty (early 1600s) put the area under the control of the central Tibetan government in Lhasa, which was itself dependent on Gushri Khan's Khosote Mongols (Geshe Tenpa Gyaltsen 1985: 35; Lee 1979: 52). The first imperial garrison in this area was set up during the Qing Dynasty in 1724, although many scholars have noted that there was minimal amount of Qing control despite this official arrangement (Herman 1997; Lee 1979). The area is also known to have staged rebellions during the late 1950s and to have joined forces with other eastern Tibetans to fight communist forces (Geshe Tenpa Gyaltsen 1985: 169-195). These most

[17] A mythology of these local women seems to have developed in Chinese writings and is connected to the claim of a 'land of women' (女国 *nüguo*). See Rock 1947.

recent skirmishes are still part of the contemporary community's social memory, although rarely talked about directly in public circles.[18]

A product of these inter-ethnic dealings, Rgyalthang is presently home not only to Tibetans, but also to Han, Naxi, Lisu, Yi, Bai, Miao, Hui, Pumi, and Zhuang—all officially recognized "nationalities" (民族 *minzu*) by the Chinese state.[19] *Minzu* is the central unit of classification in the state system of ethnic identification. It is purportedly based on Stalin's definition of a nation as having members that share a common language, territory, economic life, and "psychological disposition." However, *minzu* also reflects and is shaped by the dominant historical concept of "culture" (文化 *wenhua*) as espoused in Confucian philosophy and Chinese ideology. Such a concept of culture includes literacy in written Chinese and proper "moral education" (Harrell 1995; see also Dikötter 1992, and Ames 1987). The term *minzu* was borrowed from Japanese *minzoku* and was co-opted by Chinese intellectuals during the anti-Manchu and anti-Western campaigns at the start of the 20th century. Almaz Han argues that the "linguistic, discursive and socio-political backbone" (Han 1999: 39) of *minzu* is the term 族 *zu* (lineage), so crucial in Han Chinese society; this link highlights the primordial connotation of *minzu* and indicates that the term refers to more than simply a legalistic

[18] I had a few conversations with older folks who mentioned these times, although they did not elaborate on specific happenings. Even some local friends of mine, younger and fairly well educated, would on occasion refer to the ferocity of local rebellions. One person half jokingly stated that perhaps it is time for another purging of the area to chase out the Han.

[19] This is not to say that the ethnic groupings mentioned in historical documents are necessarily the same as currently recognized *minzu* groupings.

definition of "nation."[20] The *minzu* system was implemented in the early 1950s as part of the project of nation-building and consolidating frontier regions and has remained relatively intact to the present.[21] The system is therefore the product of both historical and contemporary China.

Much scholarship of ethnicity in China has focused on the implementation of the *minzu* system, highlighting its inconsistencies, assumptions, and implications, as well as the consequences of this classificatory apparatus on people's perceptions of themselves and their roles in contemporary Chinese society (Brown 1996; Deal 1984; DeGlopper 1990; Dreyer 1976; Eberhard 1982; Gladney; Harrell 1990, 1995, 1996, 2001; Heberer 1989, 2001; Han; Lipman 1997; Litzinger 1995; Schein; Wu 1990, 1991). Early scholarship in particular examined the role of state hegemony in and the historical development of the *minzu* classification system. Historians such as Dreyer (1976) and Deal (1984) chronicle the changes in minority policy from the Nationalist to the Communist governments, examining the various rationales for minority policies. Anthropologist Wu (1990) and political scientist Heberer (1989) emphasize the ways in which the state retains ultimate control in assigning *minzu* identity to groups. Later scholarship has highlighted the extent to which *minzu* status affects local identity, agency, and social interactions. Stevan Harrell has argued, for example, that the local sense of

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[20] Probably the most comprehensive discussion of the concept of *minzu* to date is contained in Almaz Han's doctoral dissertation (1999). In this work, Han examines not only the historical development of the concept but also the way in which it functions as a technology of power by the State.

[21] At present there are fifty-six *minzu* officially recognized by the state, fifty-five of which are minority nationalities (少数民族 *shaoshu minzu*) that constitute approximately 8% of the total population of the PRC. The number of groups recognized has remained quite stable since the implementation of the *minzu* classification system in the early 1950s.

identity in the case of at least one ethnic group (Prmi) has been partly shaped by the imposition of the *minzu* classification system:

> ...in the Prmi case, minzu identities, originally not in conformity with ethnic distinctions, have gradually shaped and partly solidified people's own ethnic consciousness so that now, forty years or more after original identification, people have become strongly invested in the categories originally imposed upon them from outside.... This process of precipitation has turned ethnic identity into minzu identity, the objective categories of state classification invading the subjective consciousness of local people. (Harrell 1996b: 278-9)

Harrell's argument stresses the importance of a dialectic between subjective ethnic identity formation and the role of the state in the process of ethnic classification. In a similar vein, Han (1999) discusses what he terms *minzufication*, "a process by which China's internal Others are being remolded and incorporated into the dominant state and society...under the ideological and structural rubric of *minzu*... [as] obedient components of the citizenry..." (Han 1999: 28, 30). For Han, this process of *minzufication* is a violent one brought symbolically upon China's minorities by the Chinese state. Such violence has acute consequences in the lives of minority peoples, at least among the Mongolian population discussed by Han.

Scholarship focused more directly on Tibetan ethnicity and its relationship to the *minzu* project in the PRC is less extensive but equally important for the present study. Janet Upton has argued, for instance, that Tibetan intellectuals are active agents in ascribing meaning to their designation as 藏族 *Zangzu* by the state; they themselves help create *Zangzu* identity by promoting selected aspects of their cultural lives, both real and imagined (Upton 1996).

Tallying ethnicity: current demography

The majority of Tibetans in the PRC live in the Tibetan Autonomous Region (TAR), and Sichuan, Qinghai, and Gansu Provinces.[22] According to the 2000 Census, the total Tibetan population of the PRC is 5.4 million. The Tibetan population in Yunnan Province is 128,432. This means that the Tibetan population of Diqing TAP is only 2.4% of the total Tibetan population in the PRC. In this way, Diqing TAP is a statistically marginal area in terms of how many Tibetans live there compared to other areas of the nation. Additionally, the Tibetan population of the province (128,432) is approximately only .03% of Yunnan's total population. Thus Diqing is marginal also on the provincial level, where Tibetans are an extremely small minority in the province.

The total population in Diqing Prefecture in 2000 was 353,518, with Tibetans constituting 33% of the population (91% of Tibetans in Yunnan live in Diqing Tibetan Autonomous Prefecture). Although not a majority, Tibetans are the largest ethnic group in the Prefecture, followed by Lisu, Han, and then Naxi (see Figure 2.6). At the county level, Zhongdian County had a total population of 147,416 in 2000. Tibetan population in Zhongdian County was 40%, followed by Han and then Naxi (see Figure 2.7). Tibetans are more dominant in Deqin County, which reported 79% Tibetans in the total population of 60,085 in 2000 (see Figure 2.8). The percentage of Tibetans is quite low in Weixi Lisu

[22] According to the 2000 Census, Tibetan population in the TAR is 2.4 million (a total of 93% of the population of the TAR and 45% of the total Tibetan population in the PRC). Tibetan population (based on the 2000 Census) in Sichuan is 1.3 million and 440,000 in Gansu. The figures from 2000 Census were not available for Qinghai Province at the time of this writing, but we can estimate that the majority of the remaining 1.1 million Tibetans live in Qinghai.

Autonomous County—only 7%.[23] As its name would suggest, the group with the highest numbers in Weixi County is the Lisu, with 54% of the population (see Figure 2.9). Weixi is the prefecture's most populous county, with 41% of the population of the prefecture residing there.

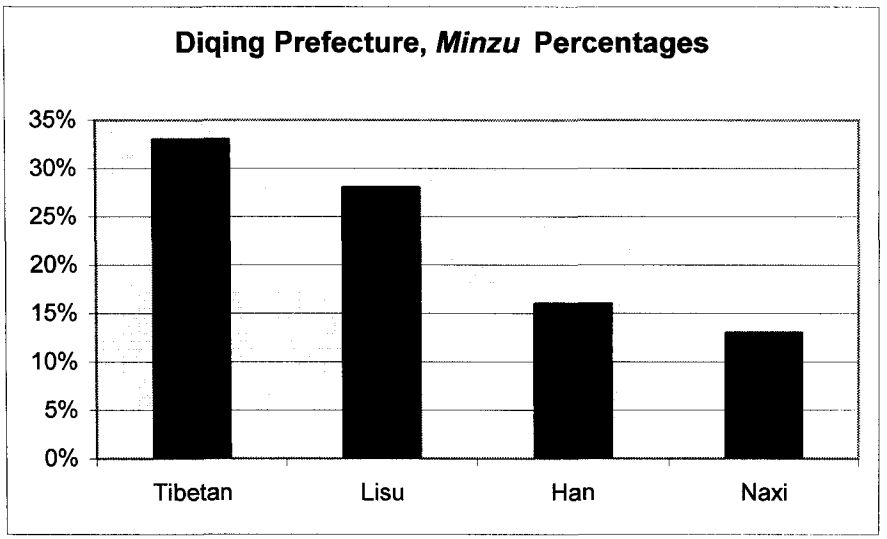

Figure 2.6 Diqing Prefecture, *Minzu* Percentages

[23] The exceptionally low number of Tibetans in Weixi County makes one wonder about the motivation for including Weixi in the establishment of Diqing Tibetan Autonomous Prefecture. If Weixi had not been included in the formation of Diqing Prefecture the percentage of Tibetans in the Prefecture would rise to a majority, approximately 52% (assuming that all else remained equal). As with much of the rest of Yunnan Province, this is a multi-ethnic area, a cultural patchwork of sorts. And yet we can be quite sure that administrative boundaries are drawn with particular political ideologies and practice motives in mind. In keeping with the state project of a united nation with multiple ethnic groups (同一多民族国家 *tongyi duominzu guojia*), the state has a keen interest in making sure that the quilt of "ethnic patches" does not fray at the seams—in short, that Tibetans do not constitute an actual majority in the area.

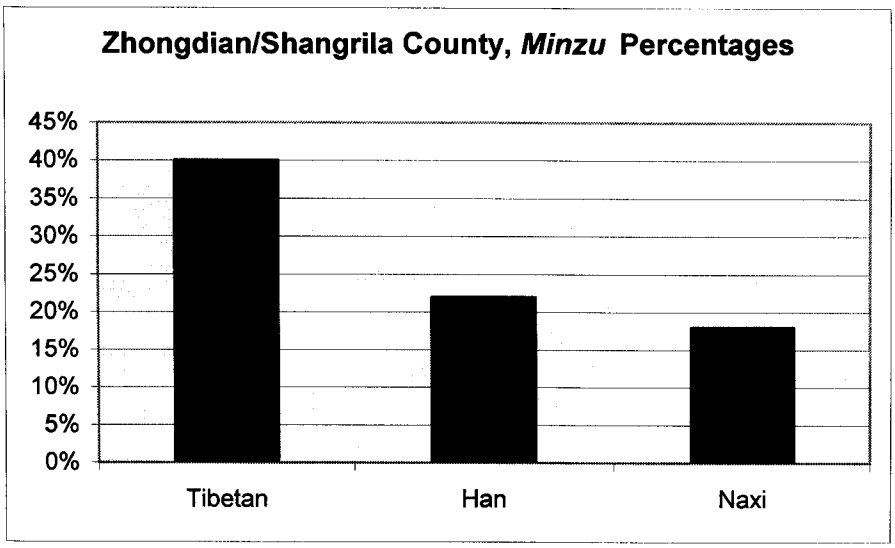

Figure 2.7 Zhongdian/Shangrila County, *Minzu* Percentages

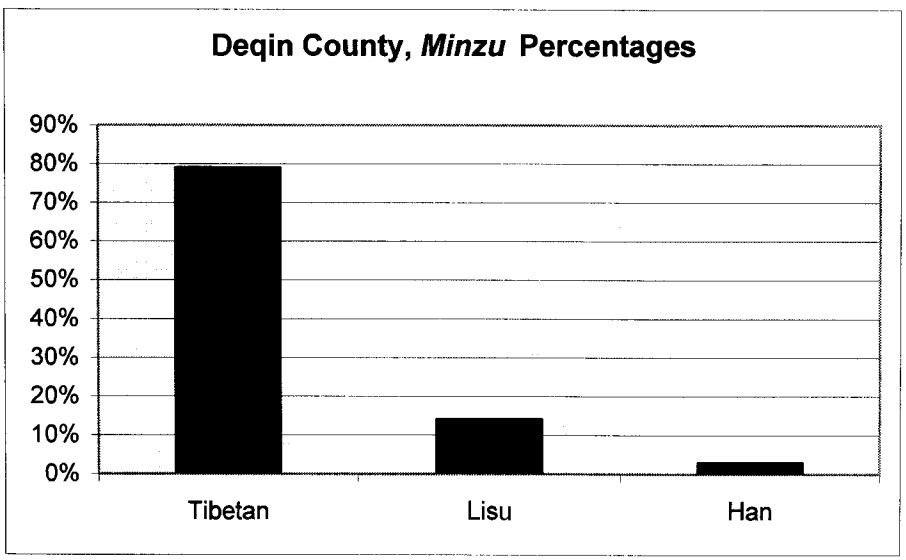

Figure 2.8 Deqin County, *Minzu* Percentages

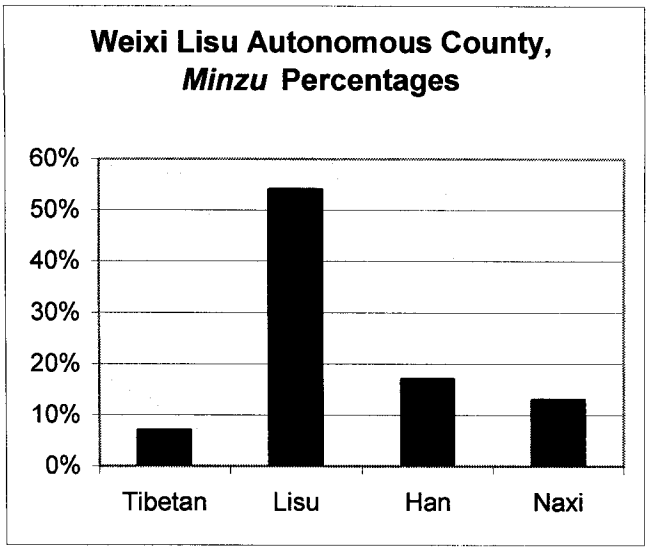

Figure 2.9 Weixi Lisu Autonomous County, *Minzu* Percentages

Looking specifically at the distribution of ethnic groups in Shangrila/Zhongdian County between the town limits of Zhongdian and the rest of the county, we see that Tibetans average 41% of the population, with slightly higher numbers in Zhongdian Town. Within the town limits of Zhongdian (Central Town) is a reported population of 40,360 (this is 27% of the total County population). 42% of the population in Zhongdian Town is Tibetan (followed by 29% Han, 13% Naxi, 10% Bai, 2% Lisu and 1% Yi). Outside of Zhongdian Town (that is, the other 73% of Shangrila/Zhongdian County) is 40% Tibetan, 19% Han, 19% Naxi, 9% Lisu, 9% Yi, and 3% Bai. Again, although Tibetans do not constitute a majority, they are the largest ethnic group in the county (see Figures 2.10, 2.11).[24]

[24] Note the higher concentration of Han and Bai in Zhongdian Town. I suspect this is due in part to the presence of a variety of businesses, from restaurants to car washes, many of which are owned and/or operated by Han and Bai. To the best of my knowledge, these figures do not include military personnel.

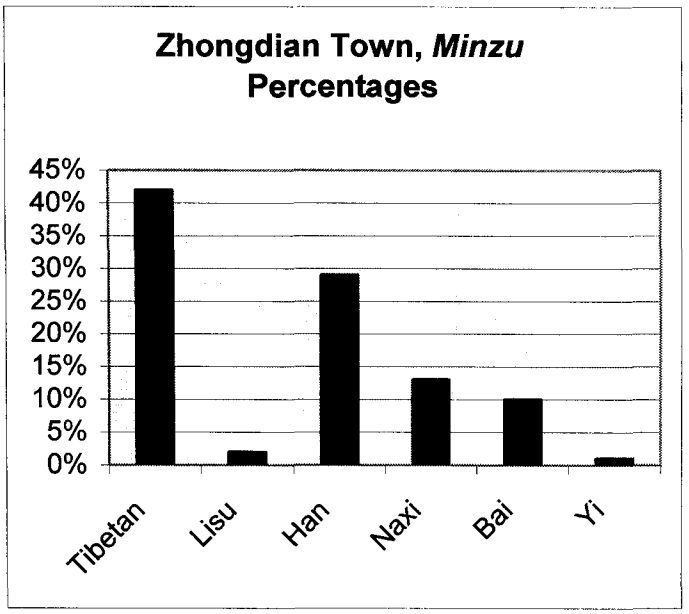

Figure 2.10 Zhongdian Town, *Minzu* Percentages

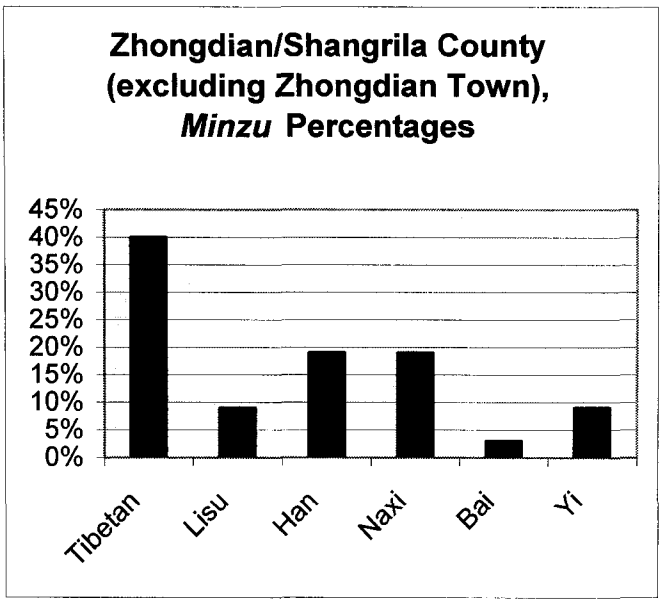

Figure 2.11 Zhongdian/Shangrila County (excluding Zhongdian Town), *Minzu* Percentages

The significance of the above demographics is two-fold. First, and most obviously, they indicate that the area is populated not only by Tibetans but by other *minzu* as well. This is something that is not revealed in the name of the prefecture. Although technically an autonomous prefecture need not be composed of the named ethnic group only—in fact it never is—the act of marking an area with the name of an ethnic group is one that maps ethnicity onto place and is a legacy of the state. Yet state-approved ethnic designations while in part reflecting ethnic group demographic dominance, in many ways mask ethnic dynamics in the area. While nominally and overtly marked as a Tibetan area, Rgyalthang is home to a number of other ethnic groups whose members often seem keenly aware of their ethnic labels.

Secondly, I would like to suggest that far from being uninteresting, dry statistics, these demographics make possible a particular reading.[25] By closely examining these statistics, we are able to see the actual contours of ethnicity, the placement of ethnic bodies, on the land—an ethnoscape. The distribution of ethnic groups is somewhat varied throughout the prefecture, with significant numerical domination of Tibetans in Deqin County and Lisu in Weixi County. In Zhongdian/Shangrila County, which corresponds roughly with historical Rgyalthang, there is less of an extreme contrast between the *minzu* group with the highest percentage (Tibetan) and all other groups; Rgyalthang appears to be the most ethnically mixed of the three counties.[26]

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[25] A reading at the level of the village (rather than just the county and/or the township level) would be more effective in discerning the ethnic landscape, but to the best of my knowledge such current statistics are not available.

[26] What this ethnic distribution means in terms of whether Rgyalthang is "truly" a Tibetan area or not (a preoccupation that some observers seem to have) is somewhat irrelevant. For instance, Marshall and Cooke (1997) argue that Rgyalthang has become exceedingly sinified and is only nominally Tibetan; as they sum

Shangrila: (re)constructing Tibetan ethnicity

In May of 2002, Zhongdian County was officially renamed Shangrila (香格里拉 Xianggelila) County, after the mythical land (of Shangrila) depicted in James Hilton's *Lost Horizon* (1933). In this novel, Shangrila is depicted as an area with eternal beauty and life, where no one ages and social relations are harmonious. Hilton created this idea of Shangrila from the concept of Shambhala in Sanskrit. Shambhala is described in various Buddhist texts as the tranquility reached in certain meditative states. A common technique in Buddhist teachings for more fully appreciating qualities of meditation, as well as those of Buddhas and bodhisattvas, is to visualize these qualities in a manifest, concrete form. Hence the meditative state of Shambhala can be referred to allegorically as an actual place. Whether Hilton had Rgyalthang in mind when he wrote this novel we shall never know, but the myth of Shangrila has played an important role in the minds of many romantics; the local government has utilized this imagery to attract tourists, both domestic and international, to the area. The competition between the local Prefectural

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up their impression about Rgyalthang they assert, "Poverty, isolation from other Tibetan areas and a smaller fraction of total population have all contributed to rapid and continuing decline in the status of Gyalthang as a Tibetan place" (259). Certainly Rgyalthang's territorial location and complex historical interactions should not diminish an important cultural and historical link to a socio-cultural phenomenon know generally as a 'Tibetan' one. Such a phenomenon includes the use of Tibeto-Burman (spoken) language, practice of agriculture combined with pastoral transhumance, the predominance of Tibetan Buddhist institutions (monasteries), and previous political ties to the Tibetan Central Government (although these ties were not always so clear and rebellions, both towards the Chinese Empire but also the Tibetan Government, were numerous in this area). Most important for this study, in addition, is the connection to a tradition of medicine practiced quite similarly from Lhasa to Labrang to Rgyalthang. It is not my intention here to argue for a cut-and-dried definition of "Tibetan culture" as having a list of necessary and sufficient conditions. It *is* significant that this area has had such a history of inter-ethnic relations, that most Tibetans read Chinese only, that 素油茶 *suyou cha* (Chinese for Tibetan butter tea) is a readily used term in the area. These cultural spill-overs do not mean, however, that the people with whom I worked do not consider Rgyalthang to be a Tibetan area and themselves to be Tibetan. Whether the workings of the contemporary propaganda machine or a long-held identity, locals refer to themselves as Tibetans (T, ***Bod mi*** or C, *Zangzu*) as well as Rgyalthang-ers (T, ***Rgyalthang mi/myi***, C, 中甸人 *Zhongdian ren*, or mixed Tibetan-Chinese ***Rgyalthang ren***) or Yangthang-ers (Yangthang is the name of a village about 25 km south of Zhongdian Town.), depending on the context.

government in Rgyalthang and two other counties in Sichuan for the official approval to use the name Xianggelila was apparently fierce, since all areas stood to profit enormously from the change.[27]

Although the name Xianggelila did start appearing on bus tickets and road signage to refer to the town of Zhongdian soon after the renaming of the county, most local people, when speaking Mandarin, still tend to use the name Zhongdian over Xianggelila for the town—at least they did during the tenure of my fieldwork. In this dissertation, I use Zhongdian to refer to the administrative township (the county and prefectural seat) as well as the area immediately surrounding the town (within several kilometers circumference of the town limits). Since the county was still Zhongdian County during the bulk of my fieldwork and was only renamed toward the end of my fieldwork, I use Zhongdian County and Shangrila County both. I tend to use the name Shangrila County to highlight the image the county has adopted as a tourist destination, replete with overt expressions of Tibetan-ness. I find the use of Shangrila awkward, being that it is a transliteration (Xianggelila) of a mythical place name (Shangrila) mis-translated by an English writer (Hilton) derived from a Sanskrit name (Shambhala) that refers to a possible paradise but also to a state of mind. Although no longer an official name, Zhongdian County is the name I am most used to using and it seems to involve fewer layers of translation than does Shangrila. Ultimately it will be interesting to see

[27] For an interesting discussion of this name change see Kolås (2004) and Hillman (2003).

whether the local populace, particularly Tibetans, use Shangrila—either in its Chinese or Tibetan form—to refer to the area in which they live.[28]

An interesting way in which the county government is promoting the area as a site of undefiled beauty, in keeping with the image of Shangrila, is in the "greening" of consumption and tourism, an issue with nation-wide implications. An ordinance banning plastic bags was passed at the same time as the official county name-change (May 2002). Supposedly, use of a plastic bag will incur a fine of fifty RMB (about eight US dollars) although I never saw anyone fined during the course of my fieldwork. Nonetheless, market vendors and stores stopped using plastic bags and offered cloth or paper bags for purchase instead.[29] The message printed on a paper bag that I purchased in 2002 at one of the local stores is an example of the attempt to infuse values of environmental conservation into the local populace: "For the sake of Shangrila, please protect the environment and use paper bags" (为了香格里拉, 清保护环境, 使用纸袋 *weile Xianggelila qing baohu huangjing*). There is no Tibetan script on this bag. Despite the fact that Tibetan writing is now appearing on shop signs, most Tibetans in the area do not read Tibetan (I discuss literacy more fully below in Chapter Four). Of course one could argue that these bags are more designed for tourists than for the local populace, thus the need for Tibetan script is less crucial than that of Chinese and English. Nonetheless, an

[28] The Tibetan name is Sems kyi nyin zla. See Kolås (2004: 290-98) for an interesting discussion about the translation of Shangrila into Tibetan, as well as an account of local impressions and concepts about this name change.

[29] I remember the first day of the plastic bag ban being amused while watching a woman walk away from the market with a slab of dripping tofu in her hand, having not known or simply forgotten to bring a container to market to hold the tofu.

explicit link is made between Shangrila and an environment devoid of polluting plastic, an image both the local government and the local tourist bureau are invested in.[30]

In an attempt to make the place *look* and *feel* more Tibetan the county government has legislated several important changes. First, it is mandatory for all signage in Zhongdian town to include Tibetan script, in addition to the already present Chinese. During my stay in 2002 the local sign shops were kept extremely busy, as was a local Tibetan scholar in translating the signs. Second, the government encouraged resurfacing all buildings in Zhongdian town with Tibetan-style painting. Within a matter of months many of the town's cement and the white tile buildings were repainted with warm mustard, ochre, and salmon hues (see Figure 2.12).[31] Third, although not mandatory, the county government has also encouraged government workers, especially men, to wear newly-styled Tibetan dress (***phyu pa***).[32] Locals told me this new style is often referred to as "***Drala phyu pa***" after the Prefectural governor who apparently dons this type of clothing. Some have cast a cynical glance on these changes as merely being of commercial interest to attract tourist dollars. While the economic interest is no doubt real, this does not necessarily invalidate the consequences of these changes. For young people to simply see Tibetan written on signs, for example, may inspire interest in learning Tibetan script, despite the fact that the government intention in having Tibetan on signs

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[30] Many local tourist agencies advertise their "environmentally friendly" services, a strategy that is encouraged by the local as well as the provincial governments.

[31] This resurfacing entailed more than just adding colored paint to the buildings. In many cases new surfaces had to be built upon which to paint (cement was laid over existing tile) and in some instances the structural fronts of buildings were dismantled and rebuilt.

[32] These outfits are variations on traditional Tibetan dress in the following ways: 1) instead of a one-piece dress, the new outfits are two-piece, with an upper, jacket-like garment that retains the folded-over look of the ***phyu pa***, and a lower garment that is skirt-like; and 2) new, partly synthetic fabrics much like those used in western business suits are being substituted for the traditional wool fabrics.

was to appeal to tourists.[33] These markers of Tibetan identity have become part of the landscape of Rgyalthang and have, consequently, been incorporated into the everyday lives, the consciousness and unconscious propensities of inhabitants, Tibetan or other.

Although the concept of Shangrila is not necessarily restricted to the intellectual property of Tibetans only, it is based on the decidedly Buddhist concept of Shambhala that becomes most fully elaborated in Tibetan Buddhism. This concept does not occur in other forms of Buddhism historically practiced throughout the PRC (e.g., Han Chinese Buddhism or Theravada Buddhism practiced among the Dai). In addition, I would argue that in the PRC there is a significantly strong (although certainly not exclusive) link between things Buddhist and things Tibetan. Although Tibetans are not the only *minzu* group with an historical link to Buddhism (Han, Mongols, Manchus, Dai, and others have important links as well), the Chinese national imagination often associates Buddhism (at least of the Mahayana[34] type) with Tibetan-ness. This may be due to the prominent role of Buddhist institutions in pre-1949 Tibetan societies, as well as the communist state's rhetoric about the supposedly "exploitative" relationship between the Tibetan clergy and the larger Tibetan populace in pre-revolutionary China.[35] The international prominence of the Dalai Lama, who embodies both Buddhist and Tibetan identities, may also fuel this national imagination. Hence the renaming of the county, from Zhongdian to Shangrila,

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[33] In fact, a friend of mine, a young Tibetan of 23 years from the village of Yangthang, has told me that he is very interested in learning to read and write Tibetan, in part because he sees it around him now.

[34] Mahayana, sometimes known as northern Buddhism but literally meaning "Greater Vehicle" in Sanskrit, refers to the historical traditions of Buddhism that developed in northern India, Nepal, Tibet, China, and Japan. Theravada (sometimes called Hinayana, "Lesser Vehicle," by Mahayanists), or southern Buddhism, refers generally to the traditions of Southeast Asia (Thailand, Vietnam, Cambodia, Laos, and Sri Lanka). It is generally agreed that the Mahayana tradition developed later in time than the Theravada.

[35] Such propaganda dominated State rhetoric particularly during the Cultural Revolution (1967-76).

carries with it powerful associations with Tibetan culture and ethnicity. It is part of an attempt by local officials to accentuate and (re)create Rgyalthang as a Tibetan place. Since Shambhala can be imagined as a sacred place, the renaming of the county can also be viewed as an act of ritual sanctification of place.

On the north end of Zhongdian Town is a statue of a man riding on horseback, poised in the moment of leaning over the galloping horse to snatch up a scarf (***kha btags***) from the ground (see Figure 2.13).[36] This image of the Tibetan as an adept horseman, exhibiting skills developed for showmanship at festivals but undoubtedly allied to those necessary in warfare, has become a powerful symbol of Tibetan ethnicity, some say it represents the "resilience of the Tibetan spirit." Inscribed in Tibetan below the statue is the ubiquitous phrase "Best wishes for grace, glory, and wealth" (***bkra shis bde legs phun sum tshogs***). During my fieldwork, several Tibetans with whom I spoke commented on the location of this statue. While originally the statue marked the outer limits of Zhongdian town, as the town expands further north it may actually come to be located within the center of town, people commented. This interpretation seems quite significant given the continued promotion of Tibetan identity in the area, since the current center of town is the prefectural government building (which was also recently repainted in Tibetan style).

[36] This statue is also located in the center of a roundabout but does not seem to pose any traffic confusion; since it is not a Buddhist image, people do not attempt to travel around it in a clockwise direction as they do with the stupa.

Figure 2.12 Newly painted buildings in Zhongdian Town.

Figure 2.13 Statue of man riding horse on north end of Zhongdian Town.

Conclusion: living ethnicity in Rgyalthang

In the act of constructing place, concrete, physical entities are often made to aid in the goal of construction. Such entities are not just visual images that help bolster a place's "aura"; they are sites for corporal bodies to interact (with each other and with the said entity) and enact the imaginings of place. In Rgyalthang, stupas, statues, and shop signs with Tibetan script are physical forms that help with the construction of Rgyalthang as a Tibetan place.

In many parts of China, ethnicity is mapped onto place. While the original architects of the state system of autonomous-areas may have theoretically considered that ethnicity would eventually become irrelevant once a stage of communism was reached, ethnicity has remained an important signifier of locality in Rgyalthang as it has become an important aspect of lived experience in the PRC. The multi-ethnic composition of Zhongdian County, I would like to suggest, bolsters ethnic consciousness of Tibetans (as well as other ethnic groups) as local Tibetans are reminded of their ethnic, linguistic, and cultural differences as they encounter people of other ethnic backgrounds on nearly a daily basis. From the market, where an ethnic division of vending labor is apparent (Tibetans sell mushrooms, cheese, yogurt, and religious items, Bai and Han sell vegetables and fruit), to the sites and scenes on the street, where Tibetan women (and sometimes men) are marked by Tibetan clothing and often speak very little Chinese, ethnicity is embodied by inhabitants of Rgyalthang/Zhongdian and is an aspect of their "everyday practice" (Liu 2000).

Consider the following vignettes. A friend of mine, who was a doctor of Chinese medicine but not ethnically Han, would often insert in conversations, with some urgency, the fact that he was Naxi and not Han (and had lived in Zhongdian for over 20 years). Mosuo villagers in Weixi County expressed frustration during interviews in which I was involved in 2001 about being under the administration of a Lisu Autonomous County where they could not receive funding for Mosuo schools. Tibetan householders whom I interviewed in 2001 and 2002 in Rgyalthang said that they all use some type of Tibetan medicine (sometimes alongside Chinese and Western medicines) and most prefer to go to the Tibetan Hospital in Zhongdian rather than the Prefecture or County Hospitals, in part because the physicians are Tibetan. These examples indicate how ethnic identity and the designation of an ethnic area affect social interactions of those living in the region, be they Tibetan, Mosuo, Naxi, Han or other. While expressions of ethnicity may not be the only manner in which people relate to one another, it is certainly a significant one.

Ethnicity has therefore become an aspect of *habitus* of the local population; it is part of people's subjective experience and habitual tendencies. As formulated by Bourdieu, *habitus* refers to a system of "durable, transposable dispositions" (1977 [1972]: 72) that are the products of history. Such systems yield practices, both individual and collective, which in turn (re)create history. Bentley has argued that a "practice theory of ethnicity," incorporating Bourdieu's insights, is one that effectively explains unconscious propensities and their manifestations. As Bentley states, "...ethnic identities are anchored internally in experience as well as externally in the cognitive distinctions in terms of which that experience is ordered" (1987: 36).

With an official state system of ethnic classification in place for more than fifty years now, local identity as a "Tibetan" area has possibly only become stronger. Rgyalthang is marked, both in official documentation, on tourist maps, and partially on the landscape, as a Tibetan place. As the image of Shangrila, and hence Tibetan-ness, continues to develop in Zhongdian, more such markers of ethnic identity appear to be popping up. Since my fieldwork in 2002, within the town limits several small park-like areas with stupas have been constructed (see Figure 2.14) and additional overtly Buddhist symbols have been added to department store fronts (see Figure 2.15). The choice of these symbols as predominantly Buddhist and/or ritual-oriented is not surprising; the creation of the destination tourist area of Shangrila in part pulls from the Tibetan sensibility of place, where meaning is inscribed in the landscape through ritual practices. All of these changes have had the effect of bolstering the identity of Rgyalthang as a Tibetan area; this in turn, I argue, adds to the sense of identity that people classified as *Zangzu* have about themselves as Tibetan.[37] Since the Tibetan doctors with whom I worked all inhabit this ethnoscape, and because they have studied and are employed as professionals of Tibetan medicine, an ethnically marked system of medicine in China, it is no surprise that ethnic identity and awareness seep into other cognitive abilities, such as classification of plants.

[37] It is interesting to note that one doctor with whom I worked expressed disdain for the fact that the county was mandating markers of ethnicity. "It's like Nazi Germany, in some ways" he commented, "we are told we *have* to have Tibetan on signs and that we should wear Tibetan clothes. Can't we choose for ourselves?" In our conversation about this, it was clear to me that the problem he had was not with being able to express his ethnicity (or not), but that such an expression was being legislated, and controlled, by the local government.

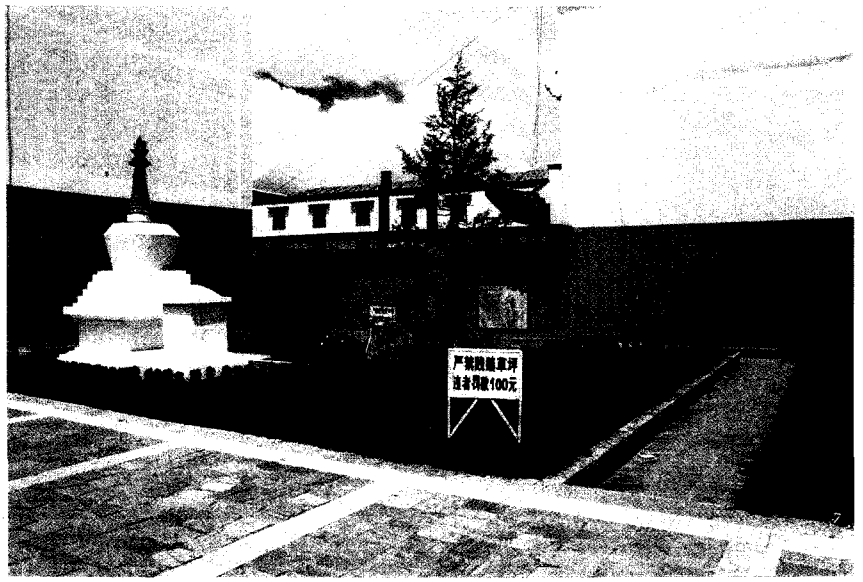

Figure 2.14 Small park-like area with stupa in Zhongdian Town. Note that the sign in the foreground, which essentially states "Do not walk on the grass," is in Chinese only.

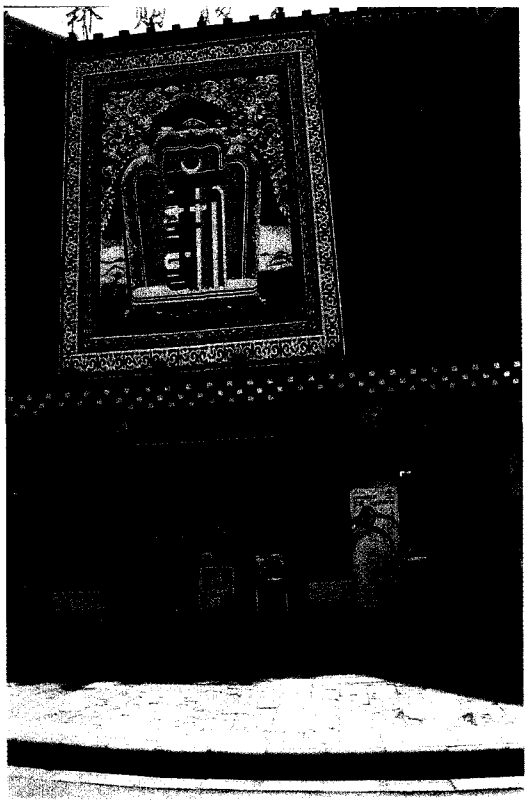

Figure 2.15 Kalachakra (Buddhist wheel of time) image on department store, Zhongdian Town.

Chapter Three:
Tibetan Medicine in Rgyalthang

Medicine and ethnic identity

Tibetan medicine, throughout China, is ethnically marked in Mandarin: *Zang yi* (藏医) or *Zang yao* (藏药),[1] where *Zang* is short for *Zangzu* (藏族), or the Tibetan ethnic group.[2] Chinese medicine is, instead, the unmarked, non-ethnicized category of *Zhong yi* (中医) or *Zhong yao* (中药), medicine of the "middle country," or, more contemporarily, the nation. The linkage between Chinese medicine and the Han ethnic group is not linguistically explicit (that is, Chinese medicine is seldom called *Han yi/yao* 汉医药), although it is implicit and often quite overt in medical publications, particularly those that deal with "ethnic" medicines. There is even a slippage in terminology, so that sometimes Chinese medicine is referred to as *Zhongyi/yao* (中医药) (Chinese medicine) and sometimes it is *Zhongguo yi/yao* (中国医药) (medicine of China) (see below). Western biomedicine, although utilized quite extensively in some areas of medical treatment throughout China for close to fifty years, carries the name of the (imagined) area of its origin: the West (*Xi* 西).[3] In the past decade or more, "traditional," institutional Tibetan

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[1] The distinction between Chinese *yi* (医) and *yao* (药) is essentially that *yi* generally refers to the practice of medicine while *yao* refers to the material of medicine (pharmaceuticals, medicinals). Often the two terms are combined.

[2] Throughout this section, I have chosen to translate Chinese *minzu* (民族) as "ethnic group" rather than the more legalistic term of "nationality." This is because ethnic group (along with correlatives *ethnic* and *ethnicity*) is much more effective in conveying the connotative meanings of *minzu*.

[3] It is significant that even when speaking Tibetan many Rgyalthang Tibetans use Mandarin *Zhong yi/yao* (Chinese medicine) and *Xi yi/yao* (Western medicine) rather than the Tibetan ***rgya sman*** **and** ***nub phyogs pa'i sman*** (or sometimes ***phyi gling pa'i sman***), respectively. In contrast, the Tibetan ***bod sman*** (Tibetan medicine) is more often used than Mandarin *zang yi/yao*.

medicine, as practiced at the Tibetan Hospital in Zhongdian, has been touted as one of China's great medical treasures, although its status in relation to Chinese medicine is somewhat ambiguous. Often Tibetan medicine gets lumped in with other medical systems of China's "ethnic minorities" in *contrast to* Chinese medicine and sometimes it is presented as an example of China's "ethnic medicines" *along with* Chinese medicine.[4] The crux of understanding how Tibetan medicine fits into the larger discourse of medicine in China depends in large part on understanding what Chinese medicine symbolizes in China. Here I examine two instances in which Tibetan medicine comes in contact with the larger discourse of medicine in China and Chinese medicine. The first is a highly publicized horticultural exposition that I attended in Yunnan and the second is a recent publication on minority medicines in China.

At the 1999 World Horticultural Exposition in Kunming, an exhibit titled *Ethnic Medicine and Pharmacology* (民族医药 *Minzu yiyao*)[5] presented a variety of medical traditions in the PRC. Non-Chinese medical traditions (Tibetan, Mongolian, Uighur, Yi, Dai, etc.) were exhibited in one hall while Chinese medicine was exhibited in several connecting and adjacent halls. Although the entire exhibit was titled *Ethnic Medicine and Pharmacology*, the use of this phrase was mostly limited to cases of ethnic *minority* medicine. For example, signs in the hall with non-Chinese medical traditions that read "Ethnic Drugs with Unique Curative Effects" (疗效独特的民族药 *Liaoxiao dute de minzu yao*) and "Rich and Varied Ethnic Drugs in Yunnan Province" (丰富多势的云南

[4] The term "traditional" medicine (传统医药 *chuantong yiyao*) is often used interchangeably with "ethnic" medicine (民族医药 *minzu* yiyao), especially for non-Chinese medical systems.
[5] The more complete translation for *yiyao* is "medicine and pharmacology" although throughout I often shorten this to "medicine" for the sake of simplicity.

民族药 *Fengfu duoshi de Yunnan minzu yao*) actually cite examples of texts and drugs from non-Chinese medical traditions only. Signs in the halls for Chinese medicine did not use the term "ethnic medicine" to describe Chinese medicine; the tradition was referred to either as *Zhong yi/yao*, *Zhongguo yi/yao* (significance of these terms discussed below) or "traditional" medicine (传统医药 *chuantong yiyao*). And yet at the same time, in the hall where displays of minority medical traditions were housed, the Han ethnic group is briefly mentioned as an important ethnic component of the nation and as the holders of the Chinese medical tradition:

> China is a multi-ethnic country. Not only does the *Han ethnic group have Chinese medicine and pharmacology* [emphasis mine] (汉族有中医药学 *Hanzu you Zhong yiyaoxue*) but also each of the other fifty-five minority groups has its own ethnic medicine and pharmacology [with] long-standing histories and rich contents; they are an important component of China's medical and pharmacological sciences (是中国医药学中药组成部分 *shi Zhongguo yiyaoxue zhongyao zucheng bufen*).

So Chinese medicine is a type of ethnic medicine as well, since it is the medical tradition of the Han ethnic group, yet it is seldom directly referred to as such. The use of "ethnic" medicine is generally reserved for non-Han Chinese traditions. In this sense, the term "ethnic" (*minzu*) is used in very much the same way that it is in the United States: "ethnic" music generally means music of non-Anglo origin; the "ethnic" food aisle at a large chain grocery store usually contains Mexican, Chinese, Thai, and Japanese foods, for example.[6] "Ethnic" in the United States generally means non-Anglo; in China it means non-Han.

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[6]A local market nearby my house that I like to frequent and which caters mostly to the immigrant population of the city in which I live has enacted a creative reversal of this trend: the "ethnic" foods at this market (located in a separate part of the store and labeled "ethnic foods") are cheeses, sausages, steaks, hot

There is often a slippage in terminology between Chinese medicine (中医药 *Zhong yi/yao*) and medicine of China (中国医药 *Zhongguo yiyao*). In another sign at the same exhibit the term *Zhongguo yiyao* (medicine and pharmacology of China) is clearly used to mean Chinese medicine. This sign lists important medical canons in the Chinese tradition and outlines a brief history of the same. Throughout the text of the sign, *Zhongguo yao* (medicine of China) is used interchangeably with *Zhong yao* (Chinese medicine). Not surprisingly, the slippage between *Zhongguo yi/yao* and *Zhong yi/yao* parallels that in other ethnic discourses in the PRC. Thus Chinese medicine is the hallmark "traditional" medicine of China. All other types of medical traditions are "ethnic," non-Han: marked, and not mainstream.

These marked medical traditions were presented at the Expo as examples of the wondrous resources of the nation, particularly in natural materials. A sign titled "Brilliant Future for Pharmaceutics of Ethnic Drugs" (前景广阔的民族药制剂 *Qianjing guangkuo de minzu yao zhiji*), at the exhibit reads:

> China has devoted much attention to the work for exploration, management, development and investigation of ethnic drugs (*minzu yao*). In recent years, large numbers of pharmaceutics from ethnic drugs with significant curative effects have been investigated and manufactured. [It then lists examples of drugs that have been manufactured, giving their Chinese and Latin names and uses]... Development and research of ethnic pharmaceutics will bring enormous contributions to humanity.

Although no particular mention is made in this sign of which medical traditions these drugs have come from, certainly non-Chinese traditions are among them (I recognize one

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dogs, potato chips, etc. The foods that would be classified as "ethnic" in a large chain supermarket, along with fruit and vegetables, constitute the bulk of the merchandise in this market. The hegemony of using "ethnic" to mean non-Anglo may indeed be gradually changing in the US and certainly varies from community to community.

example as coming from the Tibetan tradition). Later in this chapter I discuss how some of the "exploration and development" of Tibetan pharmaceutics in Rgyalthang has played out, from production factories of Tibetan medicine to plant prospecting in remote villages.

Lastly, at the Expo viewers were briefly introduced to the theoretical foundations of non-Chinese medical systems through the interpretive lens of Chinese medicine and dominant Han Chinese culture. Tibetan medicine, for example, was discussed in terms of yin/yang theory; such a theory is particular to Chinese medicine, but not at all to Tibetan medicine. All plant names given for mounted specimens were Chinese (and Latin), not those from the language of the respective medical tradition, or even Chinese phonetic approximations of these names.[7] Books displayed in cases were all written in Chinese, although in the case of Tibetan medicine, for example, there are countless medical publications within the PRC in Tibetan. Clearly the World Horticultural Exposition was aimed in large part at the Han Chinese middle to upper-middle class (and some international travelers, since most signage was translated into English);[8] in this cohort are citizens with some knowledge of Chinese medicine, a budding curiosity about the diverse nature of the nation (and the world),[9] and enough money to pay the entrance fee of 100 元 *yuan* (approximately US $12) per person per day. Ethnic medicines, as with other

[7] We cannot expect, of course, that the average exhibition viewer could have read Tibetan script, for example. Some of the medical traditions do not actually have their own script (although I do not recall if any of these were displayed in the exhibit). But the fact that no phonetic approximations were offered again signals the filtering through the Chinese medical system (and Han Chinese culture at large) which utilizes many of these same plants.

[8] The use of English at the Expo may also be for the sake of domestic consumption as well, to indicate to citizens how "cosmopolitan" the government is.

[9] Other exhibits in the Expo included those of the nation (an exhibit for each of China's provinces and autonomous regions) and of the world (exhibits for a variety of nations, from Switzerland to Sudan).

things "ethnic" in the PRC, were presented as objects of wonder and potential consumption by the greater Chinese, un-marked yet implicitly Han-centric, public.[10]

A related discourse about the relation between Chinese medicine, the nation, and medical traditions of China's "minority nationalities" appears in a 2000 publication titled *Collection of Traditional Minority Medicines of China* (中国少数民族传统医药大系 *Zhongguo shaoshu minzu chuantong yiyao daxi*). First, while the volume profiles medical systems of thirty-five ethnic minority groups in China, comparisons to the Chinese medical system are made throughout. In the opening paragraphs of the Tibetan medicine section (which is 189 pages long, divided into 25 chapters), the authors state,

> On the Tibetan Plateau, the Tibetan ethnic group created Tibetan medical science (藏医学 *Zang yixue*), which has a long history, substantial content, and a unique system and theory that are second only to the integrated medical system of the Han (汉族医学 *Hanzu yixue*). (中国少数民族传统医药大系: 3)

The text goes on to state that the history of Tibetan medicine is generally considered not as extensive as that of Chinese medicine due to the fact that written Tibetan language was not established as early as written Chinese:

> In terms of the history of Tibetan medical science, generally speaking it is not as long as that of Han Chinese medicine (不如汉族那么悠久 *buru Hanzu Zhongyi name youjiu*). This is because the history of Tibetan written language standardization did not start until the time of the ruler that united the country [吐蕃王朝统一雪域 *Tufan wangchao tongyi xueyu*—I assume this means Songsten Gampo (Srong btsan Sgam po) ~mid 7th Century]. However, if we start calculating from the time of human habitation in Tibet (如果从雪域开始有人类居住生活算起 *ruguo cong xueyu kaishi you renlei juzhu shenghuo suanqi*), then Tibetan medical science could also be said to have a lengthy history. (中国少数民族传统医药大系: 3)

[10] See Janes (1995) for a brief discussion of classifying Tibetan medicine under the rubric of "Chinese traditional medicines" in documents issued by the central government.

Here two versions of Tibetan medical history (one text based, the other orally based) are offered up, with clear preference of accuracy given to the first. If the second version were truly plausible, that could mean that the Tibetan medical tradition might rival the Chinese in antiquity.[11] The important point here is not which version of Tibetan medical tradition is "correct," but that Tibetan medicine (and other traditions discussed through the text) is always placed in contrast with Chinese medicine. And usually Tibetan medicine falls short of the "standard" set by Chinese medicine in one way or another.

Secondly, in this volume the authors make explicit that the Tibetan medical system, as a minority medical tradition, is one of several great traditions of the Chinese nation that, consequently, should bolster the strength of the nation.[12] Citing the Constitution of the People's Republic of China, which stipulates that the traditional medicines of the nation (literally "our nation," 我国 *woguo*) should be developed (发展 *fazhan*), the authors explain that minority medical traditions, taken together as a whole, are one of the great treasures (伟大的宝库 *weida de baoku*) of the nation (the other great treasure is Chinese medicine, of course). Because of this important status, all minority medical traditions should work to "discard the false and retain the true [as well as] discard the crude and retain the refined" (去伪存真,去伪粗存精 *qu wei cun zhen, qu cu cun jing*). Furthermore, they should be "practical and realistic in picking and choosing" (实事求是地取舍扬弃 *shishi qiushi de qushe yangqi*) what to discard and what to retain

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[11] The Chinese medical classic *The Yellow Emperor's Book of Internal Medicine* (黄帝内经 *Huangdi Neijing*) is usually dated to the Han Dynasty (206 BC-220 AD).

[12] See Adams (2001) for a discussion of how practices considered "scientific" (read: apolitical) in Tibetan medicine in the TAR are acceptable while those considered "religious" (i.e., political) are not. Although religious and political expression in Yunnan does not seem as aggressively repressed as in the TAR, Adams' point is worth considering for any national discourse on Tibetan medicine.

(中国少数民族传统医药大系: i-ii). The authors further urge party and government officials, as well as health care workers, to take ethnic medical traditions seriously because doing so advances ethnic culture (弘扬民族文化 *hongyang minzu wenhua*), implements ethnic policy (贯彻民族政策 *guanche minzu zhengce*), and generally helps medical sciences of the motherland (祖国 *zuguo*) prosper. The authors warn that while important technological changes must be implemented in minority medical systems, substantial leaps (跳跃 *tiaoyue*) should not be taken hastily. In particular, Western medicine is cited as an area for caution:

> Some people think that changing to Western medicine, or medical westernization, (西医化 *xiyi hua*) is a shortcut. But after making such a change [to use of Western medicine], ethnic medical traditions are unable to find themselves again (民族医药也就找不到自己了 *minzu yiyao ye jiu zhaobudao ziji le*). This is something that all ethnic medicine workers must consider. (中国少数民族传统医药大系: ii)

In other words, these medical traditions are part of a nexus of national treasures and as such have obligations to the motherland: to adapt to changing conditions but also to maintain integrity. The nationalist rhetoric in this volume (much of it quite reminiscent of like rhetoric during the Maoist era) is not surprising because the discourse on ethnic medicines in China is linked to ethnic minority discourse, which is effectively linked to nationalist discourse.

In both the 1999 World Horticultural Exposition and *Collection of Traditional Minority Medicines of China*, Tibetan medicine and other non-Han Chinese medical systems are presented to the inquiring public in the shadow of Chinese medicine and Han Chinese culture at large. In this context, Tibetan medicine is always a medical tradition of

a minority group (少数民族医药 *shaoshu minzu yiyao*), a tradition on the fringe of the mainstream. While Tibetan doctors may not consider themselves terribly on the fringe during the midst of their practice—indeed they are very much at the center of medical care for most Tibetans in Rgyalthang—they do seem acutely aware of the position of Tibetan medicine in the larger context of the entire nation, especially given that the doctors with whom I studied are presently doctors at state-sponsored institutions. They commented that Tibetan medicine, although finally recognized as the important tradition that it is after many years of persecution in the PRC (see Janes 1995: 15-22), still struggles in some areas to achieve the equality granted to Chinese medicine (below I discuss certification of pharmacologists as one example).

Tibetan medical doctors

Traditionally, there have been two main types of doctors in the Tibetan cultural complex: monastically-trained and family-trained. Since monasteries were the storehouses of and foci for Tibetan intellectual life for centuries, it was also in these institutions that medicine was taught and practiced. Part of a monk's[13] basic educational curriculum consisted of courses in medicine (along with logic, debate, astrology, grammar, calligraphy, and others). If a monk found that he was particularly interested in medicine, he could continue to study beyond the basic curriculum, provided there was someone to teach him, and/or he could attend one of a few specialized medical colleges. Even without a teacher present, however, a monk could learn a fair amount from studying

[13] Throughout I use the normative male title of "monk" even though there have always been a small percentage of clerics in Tibetan culture who were female.

medical texts, since literacy was one of the hallmarks of monastic life. Patients would seek out qualified doctors at nearby monasteries. The second type of medical lineage consisted of those doctors trained within the family. Before 1949 most of the families with which we are familiar in the literature were aristocratic and often traced their ancestry back to important historical figures (many Indian) in the development of Tibetan medicine. Doctors of this genre were connected to landed estates, were literate, and varied in the degree to which they practiced medicine as a profession. Although most of these doctors were men, it was possible for women in a medical family to be trained as well.

Such are the two ideal historical types of Tibetan doctors. Certainly there must have been quite a few doctors that did not match the descriptions given here: doctors who may have had some basic monastic training in medicine but then returned home to village life to become the local village doctor; doctors who were somehow self-taught, possibly traveling to other locations to find willing teachers; or other family-trained lineages. What this typology of Tibetan doctors leaves out are those doctors trained outside the world of literacy. Certainly I encountered a few such doctors during the course of my fieldwork, although I was not able to study with them (explained below). Sometimes called village or country doctors in Chinese (农村医生 *nongcun yisheng*), these doctors were usually trained within a family by a parent, grandparent, aunt or uncle and are undoubtedly part of a long tradition of oral medical training.[14] Such doctors tended to be men as well, although not exclusively so, and they treated patients within the local

[14] Not all village doctors are non-literate, but many are.

context of a village or group of villages. These lineages were (and are) most often found in more remote areas, away from cultural centers and large monasteries.

Since the founding of the PRC and the Communist Revolution, the specialized study of Tibetan medicine in institutions has been moved from the monasteries to state-sponsored colleges and hospitals;[15] medicine of this lineage is no longer yoked exclusively to religious study.[16] The Rgyalthang doctors with whom I studied were all products of institutions, hence I use the term "institutional doctors" to describe them.[17] Yet the types of institutions in which they studied vary depending on age. Those born before 1940 (Pema Tenzin, Tsedrup Gonpo, and Xiang[18] Rinpoche) had all begun their study of Tibetan medicine as young monks in monastic institutions. In contrast, younger doctors, born after 1960, (Ma Liming and Kelsang Chöden) had started by apprenticing with one or more senior doctors and then had gone on to study at formal medical institutions. One of the underlying commonalities for all of these institutional Rgyalthang doctors is literacy in Tibetan language. One cannot study Tibetan medicine without fluency in the language, as explained in Chapter Four. Although there is nothing stopping

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[15] A move in this direction was begun during the reign of the 13th Dalai Lama, in the early 20th Century, with the establishment in 1916 of the Medical and Astrological College (***Sman rtsis khang***) in Lhasa and the Dalai Lama's interest in increasing secularization of the medical profession.

[16] To the best of my knowledge, however, most basic monastic education still does have a component of medical study.

[17] Below I present two other doctors in the Rgyalthang area that were of the family-trained, non-literate ilk of doctors but with whom I did not study (I discuss why). Although my research was with institutional doctors, this does not imply that these are the only doctors present in Rgyalthang. At the same time, based on interviews I conducted among common householders in 2001 and 2002, I would argue that institutional doctors occupy a dominant position in providing health care to Tibetans in Rgyalthang.

[18] The actual spelling for "Xiang" is Byang. In Rgyalthang dialect ***by*** is pronounced similar to the initial *x* in the *pinyin* system of romanization of Chinese.

a non-Tibetan from learning to read and write Tibetan (and therefore studying Tibetan medicine) it is thus far unheard of in Rgyalthang.[19]

Rgyalthang "institutional" doctors of Tibetan medicine

"Institutional" doctors in Rgyalthang for the most part practice in hospitals.[20] There are three main public hospitals in the town of Zhongdian.[21] The Diqing Prefectural People's Hospital (迪庆藏族自治州人民医院 *Diqing Zangzu Zizhizhou Renmin Yiyuan*) was established in 1978 and utilizes both Western and Chinese medicines. In 1979, the Prefectural Hospital established a clinic of Tibetan medicine that was disbanded after the establishment of the Tibetan Hospital (see below) in 1987. Since there were no doctors of Tibetan medicine at the Prefectural Hospital during the time of my research I did not spend any time there. The County People's Hospital (中甸县人民医院 *Zhongdian Xian Renmin Yiyuan*) was founded in 1952[22] and utilizes mostly Western and Chinese medicines but also has a small clinic of Tibetan Medicine. I interviewed the doctor of Tibetan medicine, Tsedrup Gonpo, at the County Hospital several times. The third public hospital in Rgyalthang is the Tibetan Hospital (迪庆州藏医院 *Diqing Zhou Zang Yiyuan*; ***Bde chen khul bod lugs sman khang***), established in 1987. At the Tibetan Hospital,

[19] This is not the case in the west (the US and Europe) where Tibetan medicine is being taught to non-Tibetans.

[20] Exceptions include Pema Tenzin, who opened his own private clinic in his home in 2000 but who previously worked for both the Prefectural and Tibetan Hospitals, and Xiang Rinpoche, who used to see patients at his home in addition to the Prefectural and Tibetan Hospitals (although he was never an employee of either hospital as far as I could ascertain).

[21] There were two other hospitals in town during the tenure of my fieldwork, the Army Hospital and the privately owned Shangrila Liver, Gallbladder, and Urology Hospital (*Xianggelila Gandan Miniao Zhuanke Yiyuan*). Neither of these hospitals employed practitioners of Tibetan medicine, however.

[22] The County Health Hospital (中甸县卫生院 *Zhongdian Xian Weisheng Yuan*) officially became the County People's Hospital (中甸县人民医院 *Zhongdian Xian Renmin Yiyuan*) in 1956.

Tibetan medicine is practiced almost exclusively; of the twenty-seven doctors on staff, twenty-three of them are doctors of Tibetan medicine, two are doctors of Chinese medicine, and two are doctors of Western medicine. (All doctors of Tibetan medicine at the Tibetan Hospital have had minimal training in both Western and Chinese medicines.) Most of my time was spent at the Tibetan Hospital. My main consultant was Ma Liming. In addition, I interviewed Pema Tenzin while he was still a doctor at the Tibetan Hospital in 1999 and then again later in 2001 and 2002 at his private clinic.

These three hospitals are within an approximately two-mile radius of each other. The Prefectural and County Hospitals are toward the center of town and within blocks of various government buildings (prefectural and county), the bus station, and the central food market. The Tibetan Hospital is located on the north end of town, past the Minorities Middle School (州民族中学 *Zhou minzu zhongxue*) and the statue of a man (visually marked as Tibetan) riding on horseback. The location of these facilities is symbolically significant and mirrors the status of the respective medicines in the eyes of the state; locating the Tibetan Hospital on the edge of town signals the peripheral status of Tibetan medicine within the larger discourse of medicine in China.

Profiles of doctors

Pema Tenzin (Pad ma Bstan 'dzin)

Pema Tenzin is a native of Dongwang (literary name: Gter ma rong), a township in the northern part of Zhongdian County. He began his study of Tibetan medicine in Dongwang with teachers Ani Lhatsa and Tsering Gyatso at age eight or nine; he was a

monk until age 27. Pema Tenzin explained that he had traveled to many places (the TAR, Gansu, Qinghai, Sichuan and Yunnan) throughout the years, studying medicine with a variety of teachers. He himself has been a doctor since 1966 and has been practicing in Zhongdian since 1984. First he worked in the Tibetan Medicine Clinic of the Prefectural Hospital but then moved to the Tibetan Hospital after it was constructed in 1987.[23] He explained to me once that he only instructs about four students at a time, for four to six years. In 2000 he retired from the Tibetan Hospital and opened his own private clinic in his home. He was quite humble about the importance of his clinic but every time I was there a line of patients (between 8-25 people long) was formed in the courtyard to see him. He often treated people and dispensed medicines free of charge. I was told by Ma Liming that people will come from far away, especially from his home area of Dongwang (about an eight-hour trip by bus), to see him.

When I first arrived in Rgyalthang in 1999 I went first to the Tibetan Hospital. I was accompanied by a graduate student from the Kunming Institute of Botany (昆明植物研究所 *Kunming zhiwu yanjiusuo*); although she had never been to the area herself and was from neighboring Lijiang Naxi Autonomous County, she was assigned to be my *peitong* (陪同 accompanying companion—theoretically required for all researchers in the PRC). We had names of doctors to contact that were given to us by one of her fellow graduate students who had done research in the area. At that time Pema Tenzin was one

[23] While interviewing in Ninong village in the Dechen area in 2001, I met a doctor (Ngawang Chopel) who knew Pema Tenzin from the time when the Tibetan Hospital first opened; the two were doctors on staff together. He explained that the hospital was overrun with patients at first and that they could not make enough medicine to keep up with the demand; they would have to close the hospital for a week at a time to mix enough medicines for patients and then reopen.

Figure 3.1 Pema Tenzin at his clinic in 2002

of the leading doctors at the Tibetan Hospital and Ma Liming was a new doctor there who had been studying under Pema Tenzin for many years. One of the distinct memories I have of that first visit is of Pema Tenzin's demeanor. I remember that his voice was quite soft, his Mandarin was heavily accented, and his face had a warm glow. His skin was not weathered like that of many in the area, presumably from having spent most of his adult life indoor studying. His smile was sweet and his eyes seemed kind. In many ways he was guarded: he had asked that I not record our interviews (I asked if I could since I had difficulty understanding his Mandarin at times) and he seemed especially careful about my questions concerning the connection between medicine and religion. I realize now that most of the questions I asked at that time were too direct for these beginning conversations. Although cautious, Pema Tenzin nonetheless was encouraging and extremely helpful; I remember that a particularly bright smile came across his face when

he learned that I could read Tibetan. In 2002 I spent time at his private clinic, observing doctor-patient interaction, interviewing him, and receiving treatment myself.

Once when I was at his clinic in 2002, and after all patients had left for the afternoon, Pema Tenzin took me into the upstairs part of his home to show me where he stores all of his plants. He explained how he used to collect most of the plants himself, but now he mostly buys them from a few people he trusts to collect. Baskets of plants were drying in the sun on the rooftop while others were drying in the shade.[24] He had built shelves on which to store bags of dried plant parts and the upstairs rooms and hallway were filled with the aroma of these. Next he showed me his shrine room, where ***thangkas*** lined the walls and a central shrine was at the west end of the room. Some plants were even stored in the shrine room, and he explained that to aid in efficacy all plants should be properly blessed. We did not talk much about the contents of the shrine room, since his main purpose in bringing me upstairs seemed to be to show me his storehouse, but I was able to recognize many of the figures in the ***thangkas***, some of which were the Medicine Buddha. I felt honored that he would share all of this with me. I also felt that perhaps in some way he was trying to communicate to me that the questions I had asked him three years previously about the connection between medicine and religion were important ones, even though he had not chosen to discuss them with me then. In many ways I began to feel like Pema Tenzin and I were finally establishing a meaningful relationship—just as my fieldwork was coming to a close. I am sorry that this did not happen in large part before mid-2002.

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[24] It is important that plants are properly prepared. Plants that are cooling should never be dried in the sun but always in the shade, while those with heating characteristics should be dried only in the sun.

Ma Liming

Ma Liming is from a farming family in Yangthang village, about 25 km south of Zhongdian town. His Tibetan name is Chöpe (Chos 'phel) but he hardly ever uses this name, he told me. He explained that he did well in school from an early age and therefore was encouraged to continue on to study medicine. He was an apprentice for six years with Pema Tenzin before attending the School of Health (卫生学校 *Weisheng Xuexiao*) in Zhongdian where he studied for four years. The same age as me (34 in 2002), Ma Liming has been the head pharmacologist at the Tibetan Hospital since Pema Tenzin retired in 2000; he even now occupies the office that previously belonged to Pema Tenzin. He is in charge of acquiring all medicinal ingredients (either through organizing collecting parties or purchasing) and is overseer for all production of medicines at the hospital. There are four doctors who work under him that actually mix the medicines, and help with collecting materials.

The majority of my time interviewing was spent with Ma Liming, hence I consider him my main consultant. He often had afternoons free and these were the best times for me to visit the hospital to interview. He was instrumental in my learning, never seeming to tire of my elementary questions. He explained an enormous amount of Tibetan medical theory to me and showed me how to read recipes in medical texts. He helped me decipher audiotapes I had made in Dechen and in surrounding villages of doctors and common householders reciting names of plants. We drove around several times in his small minibus identifying plants in the field and taking small collections. One time we even drove out to Tsoli village for the day; Ma Liming said he would be happy

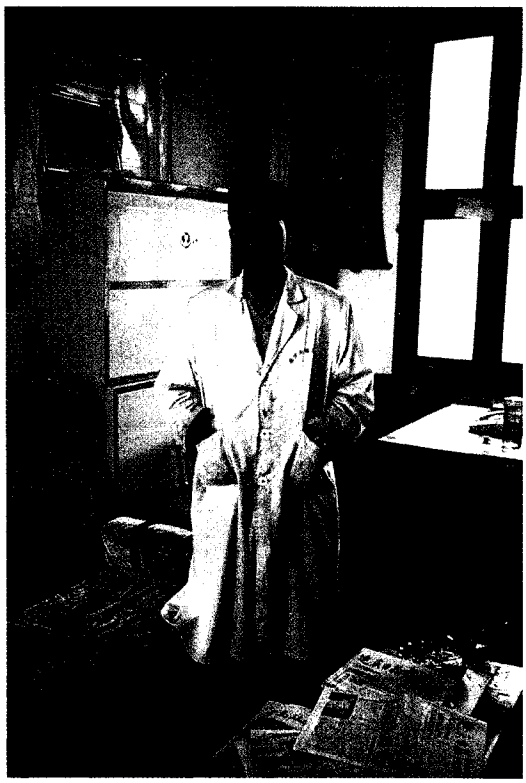

Figure 3.2 Ma Liming in his office at the Tibetan Hospital, 2002

to help me interview some random villagers and a few men he knew there that had working knowledge of local medicinal plants. We of course spent a good amount of our time discussing plant classifications and he helped me identify and locate important texts for my research. He has even responded recently to a letter I wrote him about my findings on the variations in plant classifications (see Chapter Five) in medical texts and has provided his interpretation of some of these. Overall I feel incredibly indebted to him and could not have undertaken this research without his help.

It is worth noting here that while in general I felt quite at ease with Ma Liming, and I believe he did with me as well, he seemed quite cautious about our spending too much time together alone. The few times he offered to take me plant hunting were when

my son was along (the decision was usually spontaneous, as was bringing my son along to interviews). He tended to wax more conversational when there were other people in the room during our interviews. Even when we drove to Tsoli village (we did drive there alone and had some very interesting conversations along the way), he asked a friend in Tsoli to accompany us for the day. I have no way of knowing for sure whether Ma Liming would have behaved differently in these regards if I were a man, but I suspect so. Although I do not feel that I was slighted in any way, that somehow information was withheld from me because of my gender, by any of the Tibetan doctors, I was and am conscientious about my role not only as a foreign anthropologist, but as a woman as well.[25]

Tsedrup Gonpo (Tshe sgrub Mgon po)

Tsedrup Gonpo was born in Geze village, about 30 km north of Zhongdian town. He went to Lingshi Ridro (***Gling bzhi ri khrod***) Monastery in Bathang (in present-day Sichuan Province) when he was eight years old. By age thirteen he was ordained as a monk and had begun his study of Tibetan medicine. When the Communist Revolution arrived in China in 1949, Tsedrup Gonpo (aged twenty-four) removed his robes and gave up his monk's vows. He practiced medicine for ten years in his home village of Geza before coming to work at the Tibetan Hospital when it was first established (1987). In 1996 he moved to the Tibetan medicine clinic of the County Hospital, where he is the

[25] All of the doctors who I interviewed were male. Although there were several female doctors at the Tibetan Hospital during the time I was in Zhongdian, none of them were specialists in plants and/or pharmacology. I do hope that further research in the Rgyalthang area will allow me to come into contact with some of these female Tibetan doctors since it would be interesting to know more about their training and areas of specialization and to examine their interactions with me as a comparison.

only Tibetan doctor on staff. In 1999 he told me that he had seventeen students, which seemed like a large number. He also told me once that only Pema Tenzin, Xiang Rinpoche, and himself know anything about Tibetan medicine in the Rgyalthang area: "All the other doctors [he did not mention names] are 'book doctors'—they don't know enough about actual practice," he said.

Figure 3.3 Tsedrup Gonpo at the Tibetan Medicine Clinic, County Hospital, 2002

I interviewed Tsedrup Gonpo several times at the County Hospital. He was fairly gruff and sometimes seemed bothered by my requests to speak with him. I was told by many people, Pema Tenzin and Ma Liming included, that Tsedrup Gonpo is simply that way, that I should not worry too much about his behavior and attitude. But I found it challenging to be around him. He constantly chided me for misspelling Tibetan plant

names (even after I told him that I specifically needed help with the spellings) and he spoke very sternly to me quite often. In general I was quite put off by his inter-personal style and could tell early on that he was not someone with whom I would be able to work extensively.[26] Nonetheless, he was clearly a knowledgeable doctor with decades of experience and I tried to make the most of our encounters.

Other Tibetan medical scholars in Rgyalthang

In addition to the doctors at the Tibetan and County Hospitals, there are other practitioners and medical scholars in the area. Xiang Rinpoche (Byang Rinpoche) is one of the area's most well respected authorities on Tibetan Buddhism and Tibetan medicine. At an age of 80 and having just undergone gall-bladder surgery, Rinpoche was kind to agree to an interview with me in 1999. At that time he said he was not sure if we would meet again when I returned to Rgyalthang, alluding to concern that his present life was soon to end. Fortunately he was still alive when I returned in 2001 and 2002 and I was able to interview him several times. However, his failing memory seemed a point of embarrassment to him and he continually mentioned how he had not practiced medicine in a very long time. In particular, Rinpoche helped fill me in on some of the history of Tibetan medicine in terms of religious sects with specializations.

Kelsang Chöden (Skal bzang Chos ldan) is a native of Lhasa and did his medical training both there and in India, where he lived for many years. In Rgyalthang, Kelsang is

[26] It may be that Tsedrup Gonpo was treating me in the same way that he treats his students (or colleagues, for that matter) and his attitude did not necessarily reflect a disinterest in working with me. There are well-known stories in Tibetan Buddhism about teachers administering harsh treatment on their students (for example, Marpa ordered his student Milrepa to build a stone tower, tear it down and build it again several times) but I simply was not interested in pursuing the relationship further due to the difficulties involved.

actually a tour guide in the summer months, since he can make a fair amount of money doing this.[27] He then returns to Chamdo in the winter months to work at the Tibetan medicine factory there, where he helps mix medicines. When I first met Kelsang (we were introduced by a mutual friend) he explained to me that it was quite difficult for him to find work. Since he had left Lhasa when he was fairly young (age thirteen I believe) and spent so much time in India, his Chinese language skills, especially written Chinese, were quite poor. He said it was impossible to get a job anywhere in this part of cultural Tibet without being able to read and write Chinese. He had come to Rgyalthang hoping to work in medicine but had then settled on tourism when no other jobs were available for him (and he grew to appreciate the income from tourism, he said). Kelsang was not only a consultant but also a good friend. We shared many meals together with other friends and he was a fun person to be around, with a bright face and gentle demeanor.

Non-hospital practitioners

I was also able to interview several village doctors in Zhongdian. Ngödrup (Dngos sgrub) lives at ***Sumtsenling*** (***Sum rtsen gling***) Monastery. His son is a monk at the monastery, so he is able to live in a small room there. He sees patients occasionally and specializes in healing stomach ailments. He is from a line of village doctors that goes back at least eight generations. His father, who died when Ngödrup was ten years old, is still famous in the area for being able to diagnose illnesses from gazing at corpses (a type of "visual

[27] In particular, Kelsang is fluent in English and has an international savvy (undoubtedly from living in India) that is valuable in the booming tourist industry of northern Yunnan. Kelsang and I often spoke in English. Both he and a few other friends who had lived in India for an extended period of time (five years or more) preferred to communicate with me in English.

autopsy"); I interviewed at least half a dozen villagers in the area who mentioned this. Ngödrup told me that because his father died when Ngödrup was so young he was not able to learn as much as he would have liked to from him. Although I expressed what I believe is sincere interest in learning from Ngödrup, in many ways he seemed very suspicious of me. He told me only a few names of plants that he uses, saying that he did not know the names of most of the plants. For a while I thought that possibly because he is not literate in Tibetan he felt uncomfortable with the fact that I am. Thinking this, I explained that he could just tell me whatever names he knows for plants, that he need not be concerned with whether they are standard names or not; he just responded, several times, that he does not know *any* names for the plants he uses.

Another fellow in town with a very similar name, Yudrup (G.yu 'grub), also claimed that he did not know the names of the ten plants he uses to treat muscle strains and broken bones (his specialty) although he very agreeably answered other questions I had. By the time I had interviewed Yudrup I already had been pondering this phenomenon of "un-named" plants: I speculated that possibly there are names that are used just within the family and that since I am not a family member I should not be privy to them. I asked Yudrup if this were the case; I said that he did not need to tell me what the names are if he did not want to. He again said that they do not use names for the plants but that they can easily recognize them in the field. I was puzzled: can such covertness exist for useful taxa? In a later conversation with Ma Liming, I was told that the names of these plants are secret—they are passed on from one generation to the next

and not shared outside the family. This I had suspected. But apparently even the fact that the names are secret is also secret.

While I was extremely interested in learning more from these men I was not able to. I am not sure which was the biggest obstacle: being a woman, an "outsider," too forward in my approach, not persistent enough, or a possible liability in terms of keeping family secrets/traditions. It is not that I learned nothing from them, as the above account of secret names indicates. Whatever the case, the way in which knowledge is imparted to and shared among institutionally trained doctors is much more congruent with the type of research I was conducting and the way in which I conducted it. After all, I also come from a world of educational institutions.

Street vendors and medicinal markets

On the streets in Zhongdian there are also street vendors selling various medicines. When I first got to Zhongdian in 1999 I interviewed several of these vendors, mostly Tibetan women over 50. One of the most interesting exchanges I remember was one woman's response to my inquiry as to whether the goods she sold were Tibetan or Chinese medicine: "It's a little bit of both—and not exactly Chinese or Tibetan." Here was folk medicine in the making, I thought: eclecticism at its best. Unfortunately, the number of street vendors diminished by 2001 and 2002, and none of the women I had interviewed in 1999 were selling on the streets any longer. I realized that these vendors were more itinerant merchants than healers, which is not to say that they did not know about the medicines they sold. Nonetheless, I could not track down the original interviewees and

other vendors seemed too intermittent for a sustained research project. Additionally, a variety of markets and stores exist throughout Zhongdian town that sell medicinal plants; I did not extensively interview any of the proprietors although I did take note that the stores in particular seemed to expand between my first and last stays (1999 to 2002) in Rgyalthang.

Current medical training, practice, and certification

The most obvious difference in training between older, monastically trained doctors and younger institutional doctors is the context within which Tibetan medicine is studied and practiced. Monastically trained doctors learn that they often need to treat not just the body but also the mind/spirit of a patient. So, in addition to prescribing medicines to take, a monastically trained doctor might suggest certain prayers to say or might offer a ritual blessing to a patient. They are taught that ultimately health refers not just to the proper physiological functioning of the body but also to the balanced functioning of the mind/spirit/psyche. They also learn that karmic actions often play an important role in the health of an individual. Institutionally trained doctors in the PRC, on the other hand, spend the majority of their time learning and conceptualizing about the primarily material nature of the body and the ramifications thereof in terms of treatment of disorders. They prescribe medicines but not prayers. And yet, I found that there was definite conviction among young doctors that there is more to health than just the material body. The difference is not so much that younger doctors are strict materialists, not "believing" in the concerns of metaphysical contemplation or the law of karma, but that they readily

admit that they are not trained to treat disorders connected to such matters. Ma Liming explained to me once that if he suspects that a patient needs treatment having to deal with the spirit/psyche (神 *shen*) or with karmic action (***las***), he will send him/her to the monastery to speak with and/or receive blessings from a high monk.[28]

Medical training for those that attend the program in Tibetan medicine at the School of Health in Zhongdian includes study of two topics that the older generation of Tibetan doctors never received training in: Western and Chinese medicines. Although Chinese medicine is studied for only one semester (four months) during the four-year curriculum, Western medicine is studied for a full year. I found that when I spoke with younger doctors they would sometimes draw parallels between certain aspects of Tibetan medicine and Western medicine or point out the ways in which the two systems are different. Importantly, while instruction in Tibetan medicine is completely in Tibetan, instruction in Chinese and Western medicine is in Mandarin, which again points to the linguistic divide between Tibetan and non-Tibetan medicines in China.

A significant change in medical practice between the two generations has to do with specializations. Pema Tenzin explained to me that during his training he learned all aspects of medicine (diagnosis, treatment and preparation of medicines) because a doctor could expect to utilize skills in all of these areas throughout his career.[29] He explained that beginning in 1990 at the Tibetan Hospital a division of labor was formed wherein

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[28] One of the signs of having an illness at least partially caused by karma is not responding effectively to medicines, Ma Liming explained. It is somewhat easier to spot a problem with mind/spirit/psyche, Ma Liming said, because usually the person will act erratically and is often clearly psychologically unstable.

[29] Additionally, according to the classic medical text the ***Rgyud bzhi***, the training of a doctor involves all of these aspects of medicine. In Part I of the ***Rgyud bzhi***, medicine is described in terms of the analogy of a tree; two of the three roots of this tree are diagnosis and treatment (see Chapter Five). The preparation of medicine is described as one of the eleven principles to be learned by the student of Tibetan medicine.

doctors either diagnose (看病 *kanbing*) or work in the mixing of medicines (配方 *peifang*).[30] While students at the School of Health do learn all aspects of Tibetan medicine during the course of their study, they are encouraged to pick a specialization (either diagnosis or medicine-mixing) toward the end of the program, in large part because this will help determine placement in a facility after graduation. Now that facilities such as the Tibetan Hospital have administrative units that reinforce this division of labor, doctors by default become specialists once they begin employment in such institutions (see Table 3.1).

Table 3.1. Areas of specialization, administrative units and number of employees per unit at the Tibetan Hospital, Rgyalthang.

Specialization	**Tibetan Hospital Unit**	**Number of employees per unit**
diagnosis (看病 *kanbing*)	In-patient (住院部 *zhuyuan bu*)	14
diagnosis (看病 *kanbing*)	Out-patient (门诊部 *menzhen bu*)	4
compounding (配方 *peifang*)	Manufacturing/preparation (制剂室 *zhiji shi*)	5
(administrative)	Administration (院办公室 *yuan bangong shi*)	10

The state system of medical certification, as Ma Liming described it to me, is a series of progressive advances toward Directing Physician. After graduating from a certified medical facility, such as the local School of Health, one is awarded the title of Medical

[30] The number of doctors working in diagnosis is much greater than that of those making medicines at the Tibetan Hospital (see Table 4.1).

Practitioner (医士 *yishi*). After eight years of practice and successful passing of a standardized exam, one can then become a Qualified Doctor (医师 *yishi*).[31] After seven more years of practice and passing another exam, one can move on to Attending Physician (主治医师 *zhuzhi yishi*). Finally, one can advance to the position of Directing Physician (主任医师 *zhuren yishi*) if one so desires.[32] Ma Liming explained that the Tibetan medical text the ***Rgyud bzhi*** recognizes three levels of qualification for medical doctors: ***Gachupa*** (***dga' bcu pa***), ***Men Rampa*** (***sman rams pa***), and ***Bum Rampa*** (***'bum rams pa***), which roughly correspond to levels 1 & 2, level 3, and level 4, respectively, in the state certification program (see Table 4.2).

Table 3.2 State and canonical levels of certification/qualification for doctors of Tibetan medicine.

State certification (titles in Chinese)	Level of qualification in *Rgyud bzhi* (titles in Tibetan)	Approximate English translation
yishi 医士	***dga' bcu pa***	Medical Practitioner
yishi 医师	***dga' bcu pa***	Qualified Doctor
zhuzhi yishi 主治医师	***sman rams pa***	Attending Physician
zhuren yishi 主任医师	***'bum rams pa***	Directing Physician

[31] Although the romanized spellings for medical practitioner (*yishi*) and qualified doctor (*yishi*) are identical, the characters (and tones) for *shi* are different. The character 士 *shi* in medical practitioner translates roughly as "scholar" while that of qualified doctor (师) means "master." *Yi* (医) in both cases refers to the practice of medicine.

[32] Unfortunately, I am unable to recall (and it is not clear in my notes) if there is also a time factor (practicing for a certain number of years) and an exam to pass before qualifying for Directing Physician. I suspect that there is not (since I did not note that there is) but cannot say so for certain.

Interestingly, the division of specialization discussed above (diagnosis vs. medicine-mixing) is reflected in the state system of medical certification for Chinese medicine but not yet for Tibetan medicine, although Ma Liming explained in 2002 that such a structure was soon to be established for Tibetan medicine as well. Thus if one has specialized not in diagnosis but in the mixing of medicines, one can become a Qualified Pharmacist (药师 *yaoshi*) instead of a Qualified Physician (医师 *yishi*). Likewise, rather than an Attending Physician (*zhuzhi yishi*) the parallel for those specialists in medicine-mixing is Lead Pharmacist (主管药师 *zhuguan yaoshi*). Finally, Directing Physician (*zhuren yishi*) is replaced by the title Directing Pharmacist (主任药师 *zhuren yaoshi*) in this system of certification. I have not been able to determine if there is a causal relationship between the bureaucratic structuring of specialization (encouraged in medical schools and obligatory in employment) and the state system of medical certification or if these two structures arose simultaneously. Whatever the case, specialization does appear to be a new development in the ongoing careers of Tibetan doctors in the PRC; it will be interesting to see how this plays out in generations to come. Below I mention some areas in which this could have potentially volatile ramifications.

Consumption of Tibetan medicine by Tibetan householders in Rgyalthang

Part of my time in Rgyalthang was spent interviewing common householders about their knowledge (or perceived lack thereof) of medicinal plants (Glover, forthcoming). I interviewed both within the town of Zhongdian and in five surrounding villages. During these interviews, besides asking about the use of medicinal plants, I also inquired about

the utilization of prepared medicines and medical services, asking where common Rgyalthangers seek medical care and what types of medicines they consume. People explained to me that twenty to thirty years ago medicine was difficult to obtain, even Tibetan medicine, which mostly came from Lhasa. Now, people commented, prepared medicines are easy to get. You can buy them at hospitals, pharmacies, and apothecaries in Zhongdian. Some of these medicines are locally produced, some are from Lhasa, some from India, and some (particularly Chinese and Western medicines) come from Kunming or other parts of China. Most interviewees said that although medicines are more available now, they are also more expensive. As one forty-one year old woman from Bongchating village commented, "When I was younger medicine was hard to get but cheap. Now it's easy to get but expensive."[33] Additionally, interviewees commented that doctors are more prevalent now, especially in Zhongdian. While the County Hospital was founded in the early 1950s and state-run health clinics proliferated in the 1960s, it is difficult to know how much these institutions were accessed by local Tibetans at the time. According to my interviews they were fairly underutilized, at least for common ailments.[34] As stated above, Tibetan medicine was not institutionalized in the area until 1979, when the Tibetan medicine clinic was established at the Prefectural People's Hospital and again later, in 1987, when the Tibetan Medicine Hospital—where Tibetan

[33] Only one interviewee mentioned that medicines are actually cheaper now than they were before. However, this man had an above-average income as a private driver; his remarks undoubtedly reflect his economic standing and are not representative of the sentiment of most Rgyalthang farmers.
[34] It should be noted that the local monastery in Zhongdian, ***Sumtsenling***, does not appear to have a significant history of providing medicines or medical services to the local community.

doctors practice Tibetan medicine—was built.[35] Some villages in the area may have had resident village doctors, but in only one of the villages in which I interviewed had there been such a practitioner in the past forty years. One woman noted the increased pervasiveness of doctors and the convenience this brings: "Oh it's much easier to go see a doctor now than having to treat yourself [with medicinal plants]." Furthermore, the combination of greater availability of both medicines and doctors has generally created improved health-care conditions, people noted. One woman from Bongchating village stated, "When I was younger, we could only get medicine from Lhasa. Now we can go to the hospital in Zhongdian if we get very sick. Previously if you got really sick you would just die!"[36]

While many Rgyalthangers said they sometimes utilize non-Tibetan medicines (Western or Chinese), they all commented that Tibetan medicine was a constant in their choice of medicines. They also voiced a preference for Tibetan medical services. "I'd rather go to the Tibetan Hospital because the doctors are really great there," one woman commented. She added, "They know what our lives are like; they are Tibetan too." For some older women, language is an issue; many do not speak fluent Mandarin and are

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[35] My conjecture is that Rgyalthang Tibetans first became exposed to professional doctors through the Tibetan clinic at the Prefectural Hospital and later the Tibetan Hospital. More than several times people told me how incredibly busy the doctors were the first few years after the Tibetan clinic opened—patients would wait in line for hours to see a Tibetan doctor. One of the two doctors involved with establishing the clinic in fact told me that they could not make enough medicine to keep up with the demand for the first two years and were often overwhelmed, having to turn patients away. I suspect that local Tibetans were interested in the Tibetan medicine clinic in part because the doctors were Tibetan themselves.

[36] And yet this health care is becoming increasingly more difficult to access for those without money. Although doctor's visits at local hospitals are free, patients have to pay out of pocket for most medicines. There are a number of independent practitioners in Zhongdian who charge rather reasonable rates—in many cases they even treat patients for free. Most of these independent practices operate less as commodity-based businesses and more as "charities," accepting whatever bit of money or other offerings (usually food) patients give, rather than having set rates for treatment.

concerned that they be able to effectively communicate with doctors. Tibetan doctors all speak Tibetan, of course, so this is another reason to seek out a practitioner of Tibetan medicine—whether at the Tibetan Hospital or elsewhere. Being a Tibetan patient in Rgyalthang means foremost using Tibetan medicine.[37]

Natural environment and medicinal trade in Rgyalthang

With an average elevation of 3,000 meters (9,840 feet) enormous vertical undulations, and a location of 27° N latitude,[38] the environment in Rgyalthang and the surrounding area is an interesting mix of temperate to alpine (boreal) vegetation. Valley floors (2,000-2,500m) are often dotted with cacti, palm trees, and eucalyptus while alpine areas (3,500+ m) host rhododendrons, gentians, and the prized snow lotus (*Saussurea medusa*), which looks a bit like a pelt when dried. Deqin County, just northwest of Rgyalthang, boasts the world's lowest-latitudinal glacier (*Minyong*), a key tourist destination in the area. Three major rivers of China and Southeast Asia (the Yangtze, Mekong, and Salween) all pass through Rgyalthang and the area directly west of Rgyalthang, separated by only a few valleys in some places. In summer the area is greatly affected by the southwestern monsoon from the Indian Ocean; this weather system brings warm moist air to the region and causes heavy summer rains. Unpublished climatic data from 1958-2001

[37] I discovered another interesting link to ethnic identity during these interviews: householder self-perception of knowledge of medicinal plants was quantified in relation to other ethnic groups. One man in Yangthang village highlighted what he saw as an important difference in ethnic knowledge bases: "Han, Yi, and Naxi know how to use plants and harvest them in the high mountains. Most local Tibetans don't know much. There was one Tibetan guy about sixteen years ago who knew about plants but he didn't teach anyone and now he's dead." Two other interviewees mentioned that village remedies came from non-Tibetan families: one Naxi, one Lisu. Thus on the level of assessing their own knowledge base of medicinal plants, Rgyalthang Tibetans often compare themselves with other ethnic groups and find their own knowledge lacking.

[38] As a reference for North American readers, Houston is at about the same latitude.

for Zhongdian[39] indicate an average annual precipitation of 635mm, nearly 75% of which (467mm) falls from June-September.[40] The Tibetan Plateau protects the area from Siberian cold current in the winter and consequently temperatures are relatively mild in winters, particularly given the elevations (Chang 1983). In Zhongdian, the mean temperature in January is –3.31°C (26°F), with highs reaching an average of 6.28°C (43°F) and lows averaging –10.7°C (13°F). These conditions make ideal growing environments for a wide range of vegetation types, thus the area is touted as one of immense biological diversity.[41]

Many of the medicinal herbs used for both Chinese and Tibetan medicines come from this part of Yunnan; this is undoubtedly a result of the wide range in biodiversity. It is estimated that approximately 6,000 plant species exist in the northwestern corner of Yunnan and that 40% of plants used in Chinese medicine and close to 75% of plants used in Tibetan medicine come from this area. Rgyalthang and Dechen are well known for the existence of the intriguing caterpillar fungus (*Cordyceps sinensis*) so prized in Chinese medicine, although used only occasionally in traditional Tibetan medicine.[42] In addition,

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[39] This data was graciously supplied to me by the Yunnan Meterology Center (云南气象学中心 *Yunnan Qixiangxue Zhongxin*) via Xu Jianchu (许建初).

[40] For comparison, Seattle, with a reputation as being one of the rainiest parts of the United States, receives an approximate annual precipitation of 1,000 mm, although the majority of this rain is during the winter months. I have often joked about not seeing the sun in years while doing fieldwork: living in Seattle during the rainy season (winter) and Rgyalthang during the rainy season (summer).

[41] The high density of biodiversity has made the area of particular interest to both domestic and international researchers. While The Nature Conservancy has been conducting research within the past several years on biodiversity and conservation in the area (mostly in Deqin County), local biological/biodiversity research in northwest Yunnan, conducted by The Center for Biodiversity and Indigenous Knowledge (an NGO established in 1995) as well as the Kunming Institute of Botany, has been continuous for over the past decade.

[42] The collection of caterpillar fungus has become a recent side business for many locals who can sell the fungus for a high price. As of summer 2004, the going rate for one caterpillar fungus in the Rgyalthang area was 8-10 yuan (US$.90-1.20) per piece (Daniel Winkler, personal communication). See Boesi (2003) for

important plants (for both systems of medicine) such as *Aconitum*, *Gentian*, *Saussurea* and some *Meconopsis* are available only in this area. From a medical point of view, the variety of growing conditions produces a variety of healing potencies in plants. The ***Menri*** (***Sman ri***, literally "Medicine Mountain") Range, which borders the prefecture and the Tibetan Autonomous Region (TAR), as well as ***Pema*** (***Pad ma***, literally "Lotus") Mountain are cherished areas for the collection of medicinal plants by Tibetan doctors; the plants gathered in these areas of high altitude have great potency (***nus pa***), particularly for disorders with "hot" characteristics.[43] Even in the popular imagination plants from this area have great potential. In 2001 I interviewed a young Chinese man from Kunming who says that he comes to Zhongdian specifically to buy herbs for his ailing grandparents. Although many of these same plants can be purchased in Kunming, this man expressed his belief that the ones purchased in Zhongdian are more potent and fresh. There are many small herb shops in Zhongdian, many of which specialize in caterpillar fungus; additionally, there are street vendors that sell a mix of medicinal plants and animal parts. Recently there appears to be substantial over-harvesting of some plants, a majority of which end up in the Chinese market, and this has become an increasing area of concern for conservation efforts.[44]

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an important discussion of caterpillar fungus. Even more lucrative, of course, is the *matsutake* (*songrong*) mushroom market, where mushrooms are harvested in Rgyalthang and hurriedly shipped to Japan and Korea where they fetch a high price.

[43] The concept of potency and hot/cold disorders will be discussed more fully below in Chapter Five

[44] In many cases, local Tibetans themselves participate in the depletion of resources, due undoubtedly to the market incentives involved. In an interview in Nying shar village in May 2002, an old monk told me that there are a number of medicinal plants that villagers harvest to sell, many of which they themselves do not know how to use, and that this harvesting is depleting some local plant populations. The monk insisted that local villagers are selling them to the Chinese market, although I could not get confirmation of this. At the same time, non-locals (Chinese, Tibetans, possibly Naxi) are supposedly participating in similar resource depletion. During an interview in the ***Khawakarpo*** Mountain area with a local village doctor in July 2001, I

While it is difficult to obtain reliable information on the extent of the historical plant trade in this area, we can speculate that it was quite pervasive. We do know that the ancient tea trade route went through Rgyalthang: tea (along with silk, cotton goods, and brocades) from China was traded for wool, hides, musk and deer horn from inner Tibet. Given that a fair amount (my rough estimate is one-quarter to one-third) of plants used in Tibetan medicine grow in tropical regions and possibly up to three-quarters of Tibetan medical plants grow in the Rgyalthang and Dechen areas, there had to have been a substantial commerce in plants between this area and those to the north and south. Trade still exists, of course, although I did not ask extensively about this when I was in the field and have not been able to find any published literature on the topic. I do know that the Tibetan Hospital does purchase medicinal plants from India and southern Yunnan; I am just not sure how much. In fact, in the medicinal plant storerooms at the Tibetan Hospital in Rgyalthang, dried plant materials are organized according to their place of origin: one room is for local plants (collected in the Rgyalthang and Dechen areas) while the other is for plants that come from elsewhere (mainly India and Yunnan).[45] To the best of my recollection, the storeroom with plants from elsewhere seemed at least three-quarters as

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was told that outsiders—mostly non-Tibetans—have tried to come to the area to harvest gentians for non-local use.

[45] It is interesting to consider the classification that is being enacted in the storerooms. Yonten Gyatso, a Tibetan doctor in the United States (trained in India) with whom I have had a correspondence for several years, once said that one can classify plants according to those that are native (***yul sman***) and those that come to Tibet from across the mountains, places like India and China (***la sman***). Yonten was careful to say that although ***la sman*** would appear to mean medicine from the mountains (***la***), this is not actually the case. When I asked Ma Liming about this kind of classification, he said that ***la sman*** means medicine that grows in the mountains while ***yul sman*** means those that grow very locally, in and around villages (he said that ***yul*** in this case corresponds to Chinese 村 *cun*, "village"). But it was not a common way of classifying, Dr. Ma stated. It is interesting that these two doctors should have such different interpretations of the same terms, especially ***la sman***. I attribute such differences to each doctor's geographic orientation and location of training. However, Yonten Gyatso's explanation of these terms seems to describe quite effectively the actual layout of the medicinal plant storerooms at the Tibetan Hospital in Rgyalthang.

full as the room with local plants, although this is certainly not a reliable way to measure annual imports. I have even less information about medicinal plant exports, either in raw or prepared form, since my research was not focused on this. Given that Yunnan's plans for economic development include bolstering environmental tourism and the medicinal plant trade (*Time International* 2000), we can expect that the flow of medicinal plants to and from this region will only increase in the years to come.

Medicines in production

There was an interesting transformation in the local medicine factory during the course of my research in Ryalthang that highlights in many ways the complexities of power and identity politics in the local production of medicinals. When I first arrived in 1999, the Tibetan medicine factory was administered under the auspices of the Tibetan Hospital. I was given a tour of the medicine factory (the hygienic nature of the venue and the shiny new equipment were especially highlighted) as well as of the storage rooms where plant materials were kept until processing. Physically located on the hospital premises, the medicine factory was an integral part of the hospital.

When I returned to Zhongdian in 2001 much had changed; all of the stores of medicinals that were at the Tibetan Hospital had been bought by a businessman from Kunming who now owned a *separate* medicine factory (to be renamed the Diqing Shangrila Tibetan Medicine Company in 2002). Doctors at the Tibetan Hospital explained to me that they had no choice but to sell to this businessman. As I understand it, the man who was head of the medicine factory while it was under the Tibetan Hospital

remained head under the new ownership and persuaded the doctors to sell their stock.[46] There seemed to exist a certain amount of animosity between the Tibetan Hospital, at least as represented by the doctors, and the new medicine factory/company. As one doctor stated, "We care about treating patients; they [the owners of the factory] only care about making money. They're businessmen."

By the time of my return in early spring 2002 the Tibetan Hospital had replenished its stock of medicinals and was again making medicines. Most of the medicines prescribed by doctors at the hospital can be purchased at the hospital dispensary, located on the first floor of the main building in the hospital complex. By late summer 2002 the hospital had also established its own pharmacy adjacent to the hospital that was open to the public. The doctors seemed to express a small amount of pride at this new, modest pharmacy, which stands in great contrast to the opulence of the Tibetan Medicine Company only 300 yards down the road (see Figures 3.4, 3.5). Medicines from the hospital pharmacy appear to be aimed only at local consumption, while those at the Medicine Company are accompanied by slick brochures in Chinese and reportedly have a wider circulation than the Rgyalthang area. To the best of my knowledge, plant resources from both the Company and the hospital come from similar areas (Rgyalthang, Dechen, Chamdo, southern Yunnan, India). During 2002 the Hospital installed a new statue of the elder Yuthog Yonten Gonpo (G.yu thog Yon tan mgon po rnying ma), an important historical figure in the development of Tibetan Medicine, in its small courtyard, a symbolic representation of the connection to a long lineage of medicine (see Figure 1.5).

[46] I am not clear exactly who had the last say in all of this. Undoubtedly this is the product of administrative negotiations and the doctors themselves could have had very little say over the fate of these materials.

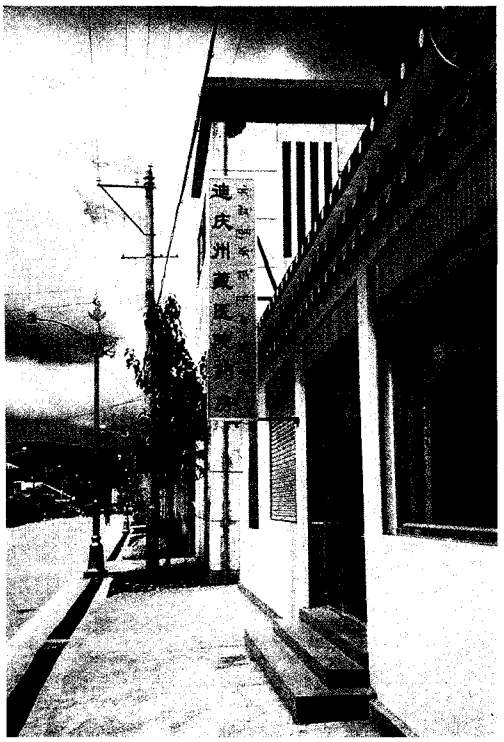

Figure 3.4 Tibetan Hospital Pharmacy

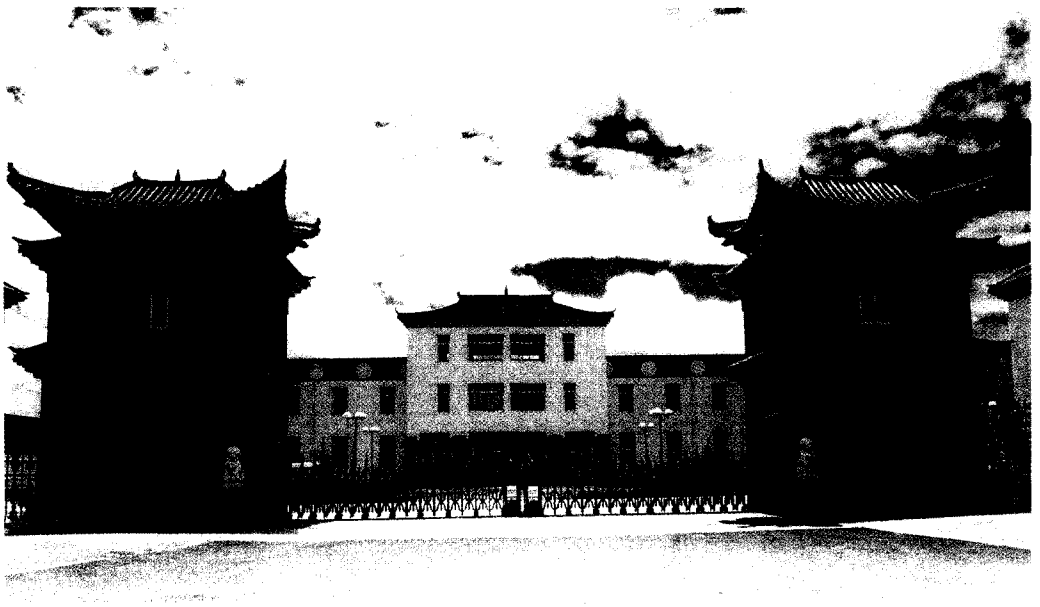

Figure 3.5 Tibetan Medicine Company

During the course of my fieldwork I did not interview anyone at the Tibetan Medicine Company (although I did interview Wang Yongshen, who would become one of the head administrators of the Medicine Company, in 1999 at the Tibetan Hospital). In part the Company became off-limits for me due to my indirect involvement with The Nature Conservancy. In 2001 I was invited by Jan Salick of the Missouri Botanical Garden to participate in a research trip to the ***Khawakarpo*** Mountain area, northeast of Rgyalthang. Dr. Salick's research is on sustainable harvesting practices in the ***Sman ri*** (Medicine Mountain) area and is contract work for The Nature Conservancy. We made arrangements to meet in Dechen; I was to drive from Zhongdian to Dechen with one of the doctors from the Tibetan Hospital, who had also been invited along. When the doctor appeared at my hotel on the morning of our departure, he was accompanied by three other men—from the medicine factory. Although I suspected that there could be a potential conflict of interest (explained below) I did not feel that it was my place to resolve these issues and so we proceeded to Dechen. After our arrival in Dechen we participated in a very uncomfortable dinner where the factory employees *and* the doctor were told that they could not come with us to the village. Since the doctor had actually been the only one invited initially, he explained that he was told by his boss that he had to bring the factory employees along. He did not explain *why* his boss made such a demand but it became clear that The Nature Conservancy's interest in conservation and the presumed commercial interest of the Medicine Factory in finding new "hunting grounds" for plant collection were at odds. I asked that we please allow the doctor to come along, since we invited him and he made the long journey there; I also had little suspicion in my mind

about the doctor's general interest and was hoping he could help me identify plants. We did invite him, but he declined and said that he should stay with the other men, since they were in part his "responsibility" given by his higher-up. I understood his position, but I was terribly worried that a major faux pas had been committed. I was not so much concerned about the factory workers, but I was concerned about the doctor and worried that an important relationship had been destroyed before it had barely begun. In the end, the doctor ended up being one of my main consultants and a good friend while the factory refused to let me and another researcher from the Missouri Botanical Garden into their factory on several occasions. The people in the village to which we traveled *thanked* us for not bringing the men from the Medicine Factory along; the villagers were equally suspicious of the intentions of this factory.[47]

The production of medicines in Rgyalthang points to two important phenomena. First, this is not an obvious case of ethnic identity politics at work in criticizing the production of medicinals since many of the workers at the factory, and indeed the head of production, are Tibetan. The criticism levied at the factory by the doctors does not appear to be ethnic in nature; it is more a discourse about *ethics* and motivations (doctors help people, businessmen make money). In many ways, it appears to be a commentary on the emerging market economy. And yet, no one (doctors or lay people) ever seems to forget the fact that the *owner* of the medicine factory is non-local, and non-Tibetan; this point was continually reiterated to me. What local could afford to undertake such a venture,

[47] The villagers told us during this trip how on a number of occasions there had been outsiders (Chinese from Kunming and also Tibetans from Chamdo) coming into their village trying to collect medicinal plants. This village is in the ***Menri*** (***Sman ri***: "Medicine Mountain") Range, which has plants of exceptional potency from the perspective of Tibetan medicine.

some wondered. Given that few of China's emerging *nouveaux riches*, or those capable of such capital investment, are Tibetans, the apparently non-ethnic, and possibly class-based, nature of this discourse could easily become ethnic in focus. Indeed, many of the commentaries about ethics (doctors as altruistic, businessmen as selfish) seem to parallel ethnic stereotypes (Tibetans as willing to help others, Chinese as out for themselves).[48]

Secondly, this points to the significance of the changes brought on by the new institutionalized division of labor in Tibetan medicine. There are new possibilities as to how this division will play out with the opening of a market economy not only dependent upon an increasingly product-oriented consumer body such as the Chinese public[49] but also upon capital investment. While this division of labor does not appear to be the foremost concern of doctors criticizing the factory (indeed, one of the most vocal critics was a doctor that himself specializes in knowledge of medicine manufacturing) the fact that one can own the means of production of medicine, much more easily at present than one can own the production of medical services, could create new issues in this division of labor, particularly with the added variability of ethnicity.[50]

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[48] One doctor told me his opinion about the difference between Tibetans and Chinese: a Tibetan will give money to a beggar in the street, while a Chinese will not only not give money but will kick the beggar and tell him he is in the way!

[49] Tibetan medicine is apparently being marketed in China in recent years as having successful "miracle" cures for heart conditions, impotence, hair loss, cancer, etc. Even the SARS outbreak in 2002 spurred on increased advertising for a prepared Tibetan medicine (***ril bu dgu nag***) which supposedly was effective in preventing SARS (WTN May 7, 2003).

[50] It would be interesting to do a comparative study of the privatization of hospitals. The recently opened Shangrila Liver, Gallbladder, and Urology Hospital (香格里拉肝胆泌尿专科医院 *Xianggelila Gandan Miniao Zhuanke Yiyuan*) is reportedly financed by a Hong Kong businessman.

Conclusion

Insomuch as a Tibetan ethnic "revival" continues in Rgyalthang, Tibetan medicine will undoubtedly become even more of a symbol of Tibetan ethnicity, both for practitioners and consumers and in the larger context of "ethnic" medicines in China. Yet the nationalistic rhetoric of Tibetan medicine as a great treasure of the motherland may always outweigh any symbolic strength otherwise gained. The specialization of training in Tibetan medicine may take on new meaning in terms of career choice and collegiality. It will be interesting to see if more non-native Tibetan speakers in the PRC will begin training in Tibetan medicine in the near future. Intellectual property rights may be drawn upon increasingly in the contestation over knowledge appropriation, particularly in the commercialization of prepared Tibetan medicines.[51] And the struggle over natural resource extraction will no doubt escalate as continued harvesting increases and population density builds.

[51] Although the concept of intellectual property rights does not appear to figure much in the current discourse of medicine (Tibetan or other) in China, I suspect that especially with the increasing presence of various NGOs in the country, particularly in the Southwest, there may be an augmented currency in its usage.

Chapter Four:
Language, Literacy, and Tendencies of Thought

Being a doctor of Tibetan medicine means being fluent in Tibetan language, both written and spoken. All training (formal schooling and apprenticeship) and testing utilize Tibetan language, important medical texts are in Tibetan (although some have also been translated into Chinese, the doctors with whom I worked use the Tibetan-language versions), and most verbal communication that a practicing Tibetan doctor engages in, both with colleagues and patients, is in Tibetan. This chapter will examine the important role of Tibetan language, and the consequences of this role, in the cognitive lives of Tibetan doctors.

Spoken language and schooling

The native language of Tibetan inhabitants of Rgyalthang is a local variety of Tibetan. Rgyalthang Tibetan is one of four sub-dialect groups of Kham Tibetan (Hongladarom 2001), itself one of three major Tibetan dialects of cultural Tibet (Ü-tsang, Kham, and Amdo). Some Rgyalthang Tibetans (those that contemplate these sorts of matters) generally consider their dialect to be one of the oldest, and hence most "pure," due to its descent from 7th Century Tibetan settlers (Wang Xiaosong, personal communication 2001; Hongladarom 2001). Whether this claim is supported by linguistic research has yet to be determined, but it is worthwhile noting the appeal to a type of primordialism in local discourse about the Rgyalthang dialect. It in part points to a deep-seated sense of pride in the history of Rgyalthang Tibetans while also claiming an ethnically distinct local identity, both in terms of contrast with other ethnic groups in the area and in

contrast with the larger group of 藏族 *Zangzu*, Tibetans, or even Khampas, Eastern Tibetans, throughout the nation.

In addition to the existence of two main languages, Rgyalthang Tibetan and Mandarin Chinese,[1] there are a number of other languages spoken in the area. Such linguistic variability reflects the multi-ethnic makeup of the local population, as was discussed in Chapter Two. It is not unusual for many people, particularly adult residents in Zhongdian town, to be multi-lingual, speaking Rgyalthang Tibetan, Mandarin, and Naxi, Bai, or Lisu. Still, the dominance of Rgyalthang Tibetan and Mandarin makes fluent bilingualism most common, at least among Tibetans. Such bilingualism is partly encouraged in the local school system.

All children who attend school, at least in Zhongdian town, learn Mandarin Chinese (spoken and written), the official national language. A few children, mostly Tibetans themselves, can learn written Tibetan in school as well, depending on which school they attend. As of this writing, it is my understanding that in Zhongdian town only one out of five elementary schools, *Minzu Xiaoxue* 民族小学, and one of the five middle/high schools, *Zangzu Zhongxue* 藏族中学, each teach a course in Tibetan language. All other courses are taught in Chinese.[2] This is in significant contrast with many other Tibetan autonomous areas throughout the country, where Tibetan has, for the

[1] Throughout this discussion I simplify the complex reality of various sub-dialects of Mandarin due in large part to the fact that among Tibetans in Zhongdian County (and possibly throughout the Prefecture) the Mandarin that is spoken is fairly close to standard Mandarin, albeit with an accent; it certainly seems to be more standard than the Mandarin spoken in other parts of Yunnan Province, which is often classified as the Southwestern dialect of Mandarin. I suspect this is the case because most Tibetans learn Mandarin as a second language and therefore acquire the fairly standardized version, which is taught in the public educational system.

[2] In October 2004 I received a communication from Tsering Norbu, a native resident of Dechen, confirming that this is still the case in Zhongdian schools. I express my thanks to Norbu for this verification.

most part, been the primary language of instruction in the first few grades of elementary school since the early 1980s.[3] Based on interviews conducted with the Diqing Prefecture Education Department in 1998, Kolås and Thowsen report that throughout the Prefecture, the percentage of primary and middle school students receiving bilingual education in Tibetan and Chinese is only 2.3%. As they summarize:

> Compared to other Tibetan-designated prefectures, Dechen [Diqing] thus had the lowest rate of bilingual education. Moreover, education in Tibetan was close to non-existent in the prefecture. (Kolås and Thowsen 2005: 119).

In part, autonomous areas (be they regions, prefectures, or counties) theoretically have control over decision-making in such areas as language of instruction in schools. While I have no confirmation of this, I suspect that because Tibetans do not constitute a majority either in Zhongdian County (40%) or Zhongdian Town (42%), the local decision not to use Tibetan language as the primary language of instruction in grades 1-3 of elementary school may have been based on the multiethnic and multilingual makeup of the area, although other factors such as lack of qualified teachers may be important as well. Mandarin (普通话 *putonghua*, "common speech"), theoretically functions as a lingua franca throughout China, and in an area where there are a number of different mother-tongue languages spoken at home, it may be that the only reasonable solution for the public school system is to agree on teaching in the standard national language. What I am suggesting is that in part because Rgyalthang is not demographically dominated by

[3] See for instance Upton (1999), Stites (1999), and Postiglione et al (2004). As Kolås and Thowsen report, however, it is often extremely difficult to assess what the "primary language of instruction" is in bilingual education in Tibetan areas. An example they present is quoted from an official: "The teachers are bilingual and the pupils sometimes even have two sets of books, one in Chinese and one in Tibetan. Sometimes the teachers write on the blackboard in Chinese and explain in Tibetan, in other situations they might teach in Tibetan and explain in Chinese. Homework might be given in Tibetan, but exams can be taken in either language" (Kolås and Thowsen 2005: 25).

Tibetans, public school support of Tibetan language instruction is limited, despite its being the governmental seat of the Diqing Tibetan Autonomous Prefecture.[4] The need for instruction in a common language is not simply nationalist propaganda (although it certainly is in part); it is very likely based also on real concerns of equity and feasibility.[5] Yet this undoubtedly accounts for the high rates of illiteracy in Tibetan language in the area, to which I now turn, and may also contribute to the difficulties Tibetan students encounter in their first years of elementary school education.[6]

Literacy in Rgyalthang

Most Tibetans in the Prefecture do not read or write Tibetan but often are literate in Mandarin Chinese. In fact, according to the 2000 Census, literacy in Mandarin for the

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[4] The research of Kolås and Thowsen seems to support this view: "...the situation in Yunnan does seem to indicate that where Tibetans constitute a relatively smaller minority, bilingual education may be given even less priority than one would expect considering demography alone" (Kolås and Thowsen 2005: 116).

[5] Although see Hansen (1999) who argues that the state's hegemonic civilizing project among minority students overrides concerns of establishing true and effective bilingual education. Clearly an in-depth study of education in Rgyalthang needs to be conducted. I do not know of such research being conducted at the moment, although there may be related work being carried out in the private sector. The New York based Khawachen Assistance Program, for instance, was interesting in learning more about Tibetan-language education in Rgyalthang when I was in correspondence with them in 2002. At the time they were contemplating the possibility of funding a private Tibetan-language school in Zhongdian. As of this writing, I know only of one such privately funded Tibetan-language school in the Prefecture, and that is in Dechen, not Zhongdian.

[6] Although I could not obtain official statistics of school attrition rates among Tibetans in Zhongdian County, the drop-out rate among Tibetans throughout the entire Province declines sharply after elementary school from 44% enrollment in elementary school (小学 *xiaoxue*) to 14% enrollment in lower middle school (初中 *chuzhong*), according to the 2000 Census. This is approximately a 68% drop in enrollment from elementary to secondary schooling. Both total enrollment and percentage of enrollment from elementary to high school among Tibetans is lower than the average in Yunnan Province, which registers 50% enrollment in elementary school and 24% enrollment in high school (the average drop in enrollment from elementary to secondary school for the Province is 52%). Statistics for school enrollment in Zhongdian County follow closely the provincial average (46% in elementary, 22% in high school, for a 52% enrollment drop from elementary to secondary school) but it should be noted that these county statistics do not reflect ethnic differences in enrollment. While school attrition may reflect a number of factors, we can speculate that educational advancement among Tibetans suffers in part due to cultural and linguistic factors. See Harrell and Ma (1999) for an interesting discussion of when cultural and linguistic factors may or may not account for success and failure in school.

entire Prefecture is roughly 70% for those aged 15 and above. Zhongdian County, with its Mandarin literacy rate of 81%, is near the Provincial average of 85%.[7] The explanation for a lack of literacy in Tibetan language among much of the adult population in many Tibetan areas throughout the PRC is that language instruction in Tibetan was forbidden (or at least severely discouraged) during various periods in the Maoist era.[8] Since the early 1980s the attitude toward minority language learning has altered somewhat, with members of minority groups being more readily encouraged to learn the written form, if one exists, of their native language. Thus Tibetan language illiteracy rates in Diqing Prefecture may be gradually changing, as parents send their children to Tibetan language school and Tibetan is taught in at least one of the primary schools in Zhongdian.[9] In addition, the multiethnic composition of the Rgyalthang area may account for low rates of Tibetan literacy, where written Tibetan is generally not relied upon as a medium of communication.

Local people often reflect upon this lack of literacy in Tibetan with some embarrassment; in particular, locals tend to compare themselves with Tibetans in other

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[7] Literacy in Deqin County is 53% while that in Weixi is 66%. The level of literacy fluency being assessed in these official statistics from the 2000 Census is not clear. From my own fieldwork experience, I found that being literate in Mandarin means being able to read signage, product labels, the local newspaper, and possibly some works of popular literature; I do not have a good sense as to how advanced the writing skills are of most "literates" in the area but some rudimentary skills probably exist.

[8] Quantitative analyses conducted by Lamontagne (1999) confirm a higher rate of illiteracy in certain age groups whose members were school-age children during the Cultural Revolution. See Lamontage (1999: 136) for a discussion about the finding of a "Cultural Revolution bump" in the sigmoidal curve of expected illiteracy levels.

[9] I suspect that the literacy situation in Deqin County, with a high concentration (79%) of Tibetans, is undoubtedly quite different from Zhongdian County in that most beginning elementary school education in Deqin County is conducted in Tibetan language. In addition, as of 2004, there was a least one private Tibetan-language school in operation in Dechen. Thanks to Tsering Norbu and Ellen Bartee for confirming this last point.

parts of the PRC and to deride themselves for not being literate in Tibetan.[10] A young friend of mine, who has aspirations to someday study in the States, said that he simply *must* learn how to read and write Tibetan before he attempts to leave China because he would feel embarrassed if he still lacked these skills upon arriving in the US. It is interesting how this sense of embarrassment becomes amplified, at least in my friend's experience, in the international setting of study abroad. Indeed, one could argue that much of the interest in written Tibetan language revival throughout Rgyalthang of late is connected to both international and nationalist discourses about ethnic diversity and "culture." Tourists, particularly from abroad, expect to see written Tibetan on signs when they arrive in the Diqing Tibetan Autonomous Prefecture; they are disappointed (and sometimes disgusted) when they do not. After all, the area is billed as a Tibetan area by most tourist companies and one of the expected markers of "culture" for many foreigners is language. Chinese nationalist discourse on what it means to be a "modern" minority and a citizen of the Chinese nation includes rhetoric about written language and literacy (see Harrell 1993, for example). Lack of literacy reflects a lower state of development; it is seen in many ways as a holdover from "feudal" times. While literacy in Chinese is seen as the most crucial for significant integration into the modern nation-state, moderate literacy in other languages is generally considered a positive attribute since it reflects

[10] This is to say nothing of how outsiders view this lack of literacy among Rgyalthang Tibetans. I was surprised to find that some researchers from a few of China's top science and social science institutions with whom I had contact throughout the time of my research seemed to view the lack of literacy among Rgyalthangers as a reflection of intelligence (lack thereof) or strict material poverty. In addition, some supporters of the Tibetan exile community see the lack of literacy in Rgyalthang as representing a marked effect of Sinicization and therefore a sort of cultural poverty (Marshall and Cooke 1997). In my view, these approaches lack a sophisticated understanding of the complexities involved in the phenomenon of illiteracy in the area.

cultural and/or ethnic integrity. Indeed, one of the stated goals of the First National Conference on Minority Education in 1951, just two years after the founding of the PRC, was to create scripts for minority languages that had none, hence encouraging literacy among minority *minzu* (Hansen 1999: 14-5, 51-2).[11] Thus much of the discomfort about the state of illiteracy among Rgyalthang Tibetans may stem from the influence of modern Chinese nationalist education, where literacy is seen as one of the hallmarks of development and progress.[12] Students realize the important cultural capital of fluency in written Mandarin and they may infer a similar value in Tibetan literacy, although most are undoubtedly also keenly aware that Tibetan literacy could never currently accumulate quite as much capital as Mandarin literacy in the PRC. Hence it is with an odd mix of both pride and shame that local Tibetans view the recently re-painted shop signs in Zhongdian: the addition of Tibetan script is something to be celebrated, yet most cannot read the script. Additionally, several spelling errors were made in printing these signs and often the Tibetan is nonsensical or downright wrong. A friend of mine, who was educated in India (and thus in written Tibetan), pointed out that the sign for a local beauty salon actually reads as "leprosy salon" in Tibetan due to a spelling error.[13]

Literacy from a Tibetan cultural worldview is highly desirable as well, although traditionally only elite and clergy were literate enough to read with fluency and to write.

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[11] It is also important to point out that much of the push for encouraging literacy among minority groups in the early days of the People's Republic was to "educate the masses" about communist and Maoist philosophies.

[12] This emphasis on literacy is not particular to China, of course, but is one of the defining characteristics of a modern nation. Anderson (1983) argues that the development of print languages was intricately linked to the rise of nationalism and "imagined communities" in the modern European context.

[13] The Tibetan word ***mdzes*** (with a final s) means beauty while ***mdze*** (no final s) means leprosy. In the Lhasa dialect of Tibetan there is a slight difference in pronunciation between these two spellings, however, to the best of my knowledge, this phonetic distinction does not exist in the Rgyalthang dialect.

Dreyfus (2003), referring to Ekvall, argues that there were higher rates of literacy than one might expect among the population of traditional Tibet: possibly as high as fifty percent among males. Yet there are important qualifications about such an estimate. First has to do with how literacy is defined. Dreyfus himself ponders this question:

> Ekvall describes Tibetans as being able "to read to the extent of being able to identify the letters of the alphabet and to approximate the sound of the combinations. They are thus able to follow the lines of familiar prayers and even haltingly to learn new ones." If half of the male population can painfully read a few prayer texts, should they be called literate? (Dreyfus 2003: 81)

Interestingly, the ability to write was a skill that was often learned separately from that of reading, which relied on repetition (Dreyfus 2003: 81-2).[14] Thus, while possibly fifty percent of the male population may have been able to "read," we do not know how many of them could write. Secondly, estimates of clergy in traditional Tibet put the percentage of the male population of "life-long" monks at 10-20% (Goldstein and Tsarong 1985: 16). Thus while 50% of males may have been "literate," it is possible that a quarter to a half of these literates resided in monastic communities, so that literacy in the general population, even all-male, was somewhat limited. Nonetheless, literacy was generally for the purpose of reading religious texts, whether among the laity or the clergy. Hence the written word for many Tibetans is endowed with a sense of sacredness because of the association that many Tibetans make between written language and religious texts.

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[14] I remember being surprised to find that a village doctor whom I interviewed several times in the Dechen area said that he could read texts and even write (in Tibetan). I asked him to write down the names of a few plants for me, since I found it difficult to discern what the names were due to the local pronunciation or dialect. His writing was of a form that I did not recognize, but I thought one of the doctors in Zhongdian could help me decipher it; it turned out that none of them could. Since I do not think this village doctor was being insincere in saying that he could write, I assume that his writing style was either his own or his teacher's creative interpretation of writing. Whatever it was, it was not a standard form. All indications were that he could read standard-form Tibetan script, albeit with some difficulty. This I think may illustrate the different emphases put on training in reading and that in writing.

Such an intimate connection between language and religion is reflected in a conversation I had with a village doctor in Zhongdian in 1999. I was inquiring about the use of religious practices in this doctor's diagnosis, preparation, and/or prescriptions of medicine. He replied that he could not read Tibetan, therefore he could not perform religious activities. Yet when I inquired further, he told me that he did say prayers and mantras, especially the mantra Oṃ Maṇi Padme Hūṃ,[15] during the course of his medical practice (usually when preparing and mixing medicines). When I added that such recitation seemed to *me* to be religious, he responded "Well, everyone recites Oṃ Maṇi Padme Hūṃ—if you didn't you would die!" Part of his belief that his recitation of mantras did not count as "religious," I submit, is because he was not reciting them based on knowledge of written text.[16] This same doctor on several occasions said that he really did not know much about medicine, that other doctors in town (all of whom were literate in Tibetan and had received extensive institutional training) were much more

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[15] This is the mantra of the bodhisattva of compassion, known in Tibetan as Chenrezig (Spyan ras gzigs). A mantra is a series of syllables that are said to represent and embody the essence usually of a particular bodhisattva, Buddha, or deity. Mantras are usually repeated in meditation or prayer to invoke the qualities of the associated bodhisattva, etc. One of the most popular mantras throughout Tibetan culture is that of Oṃ Maṇi Padme Hūṃ. The Dalai Lama is said to be an incarnation of Chenrezig (the bodhisattva with whom this mantra is associated); one may therefore find interesting "political" and "religious" connections in the repetition of this mantra. On one occasion during my fieldwork, I was intrigued by the potentially "subversive" interpretation of a group of mostly non-Tibetans (including the famous Chinese film director Tian Zhuangzhuang and the foreign anthropologist, myself) chanting the mantra Oṃ Maṇi Padme Hūṃ under the direction of a local Tibetan Buddhist teacher. Although the focus was on generating compassion, I could imagine other possible interpretations of the occasion. In the case of this village doctor, he had no reservations about telling me that he recited this mantra, despite the potential "political" reading of such an admission.

[16] It is also possible that he did not want to be associated with an activity that could be labeled "religious" by the state, given the history of religious persecution in Tibetan areas under the PRC. Since we communicated in Chinese, I used the Chinese terms 宗教 *zongjiao* and 教 *jiao* for "religion/religious" and this may have had some influence on his conceptualization of mantra recitation. Yet given his other responses, particularly his insistence that I should consult with "learned," literate doctors who *really* know about medicine, *because they can read the texts*, I do not think that there was substantial interference by using Chinese terms to talk about "religion."

knowledgeable than he, they could all read the important medical texts, and that I should make sure that I interviewed them. I encountered this deference to the knowledge of literate doctors on many occasions, both among non-literate village doctors and among common householders in the Rgyalthang area. Such deference is not limited to doctors alone but to any literate person; there is undoubtedly an important historical connection between literacy, power, and knowledge that still pervades Tibetan culture.

Literacy and doctors

Unlike most of the local populace in Rgyalthang, the doctors of Tibetan medicine with whom I studied *are* highly literate in Tibetan (both reading and writing), as village doctors and common householders correctly presumed. Much of what I highlight in this dissertation is the intimate relationship between the cognitive world of doctors and the written word. This is done largely through examination of key medical texts. Tibetan doctors spend a great deal of their medical career engaged with medical texts. They study texts extensively while undergoing training, memorizing particular passages. It is not surprising that Ma Liming, one of my main consultants, equated the task of memorizing medical texts with those of monks memorizing Buddhist scripture. Texts occupy a position of important authority in the world of Tibetan doctors and are consequently awarded an important place in this dissertation. This role of texts is discussed more fully in Chapter Five. Below I will briefly sketch important theoretical orientations to the practice of literacy, and what such orientations may tell us about literacy among Tibetan

doctors, and then discuss the role of written language in the interactions between the doctors and me.

There is an extensive literature on literacy, much of which centers on the question of whether literacy affects cognition.[17] Early work, particularly by Havelock (1963), Goody (1977), and Ong (1982), argued for a "great divide" between the literate and the non-literate worlds. In these works, literacy—especially in the form of alphabetic script—is credited with the cognitive development of abstract thinking. Gee (1986) argues that Ong makes perhaps the biggest generalization about the difference between literate and non-literate worlds:

> [Ong argues:] While oral cultures produce powerful verbal performances which may in fact no longer be possible once writing has become entrenched in a culture, human consciousness cannot achieve its full potential without writing. Literacy is necessary for the development of science, history, and philosophy and for the explicative understanding of literature, art, and language, including speech itself. (Gee 1986: 725)

There are many potential pitfalls to such a generalized, literate-centric approach as Ong's. One of the difficulties in sustaining an argument that literacy can have an affect on cognition has to do with causality. Even if such dramatic changes between literates and non-literates can be tracked, how can we be sure that differences in cognition are due to literacy *per se* and not something else, such as social complexity, or formal schooling?

In their work on literacy among the Vai in Liberia, where literacy and formal schooling do not always occur simultaneously, Scribner and Cole (1981) tackle this question of causality. The results of their research indicate that, at least among the Vai,

[17] Below I examine the linguistic relativity hypothesis, which focuses on language quite generally; that is, an explicit distinction between spoken and written language is not usually of central concern to studies of linguistic relativity. One could effectively argue, however, that spoken language has been privileged in the majority of linguistic studies, be they about linguistic relativity or universal grammar (see Stubbs 1980).

literacy alone is not associated with a higher level of cognitive development. Instead, they found that formal schooling has an affect on certain cognitive skills, particularly verbal expression: "[Such expressions include]...explanations of sorting, logic explanation, explanation of grammatical rules, game instructions (communication), and answers to hypothetical questions about name switching. All of these are 'talking about' tasks" (Scribner and Cole 1981: 242).[18] Hence their argument is twofold: 1) literacy does not necessarily promote higher-level cognitive skills, and 2) development of *particular skills*, rather than a broad generalization such as "high-level cognition," can be linked to formal schooling, or maybe other factors, and not necessarily literacy itself.

Scribner and Cole's work inspired new research that examined the social practices of literacy. Street (1984) argues that such works utilize an "ideological" model of literacy:

> Those who subscribe to this model concentrate on the specific social practices of reading and writing. They recognize the ideological and therefore culturally embedded nature of such practices. The model stresses the significance of the socialisation process in the construction of the meaning of literacy for participants and is therefore concerned with the general social institutions through which this process takes place and not just the explicit 'educational' ones. It distinguishes claims for the consequences of literacy from its real significance for specific social groups.... It concentrates on the overlap and interaction of oral and literate modes rather than stressing a 'great divide.' (Street 1984: 2-3)

Such an "ideological" model is the approach that this dissertation takes. I am not so much interested in how the medium of written language has affected anything that could be construed as "general cognition" among literate Tibetan doctors (such as these doctors

[18] Scribner and Cole (1981) also argue that literacy can have importance affects as well, although they refute many of the sweeping generalizations made by earlier researchers, such as Ong and Goody, of a "Great Cognitive Divide" between the literate and non-literate worlds.

having more "abstract" or "logical" thinking than the general Tibetan populace),[19] but rather how they utilize written language when conceptualizing and articulating plant classifications, in their training and practice as doctors, and in their interactions with the foreign anthropologist.

As will be discussed more fully in Chapter Five, doctors referred to texts quite often in our conversations. In many ways texts appear to be important cognitive anchors for doctors, at least in terms of plant classifications and medical terminology. While doctors will offer to explain that plants can be classified a variety of ways, they will usually begin by stating that the most basic way of classifying plants, in the context of all materia medica, is laid down in the classic text the ***Rgyud bzhi***.

The importance of the written word as a medium of communication between the doctors and me is noteworthy. While my time with Tibetan doctors was spent mostly in conversation, it has become apparent to me that written language was of great importance in these conversations, particularly with my main consultant, Ma Liming. Due to his own initiative, Dr. Ma was especially keen on writing notes during our conversations. Often he needed to list names of plants or attributes of medicines and it was easier for him to write them out himself rather than spell them to me as I notated (Tibetan spelling is notoriously complicated and is not my forte). But his act of writing involved more than just jotting down terms. While important ideas and concepts were conveyed through writing, other forms of communication and communion were being transmitted through

[19] In fact, memorization and recitation of texts may not at all foster higher-level cognitive skills, as has been pointed out to me by Steve Harrell. Yet this is often one of the claims made about the affects of literacy on thinking. Clearly literacy does not only have a variety of meanings, as discussed above, but can be used for a variety of purposes; the memorization of texts may actually be a use of literacy more akin to practices of recitation in oral, non-literate societies.

the medium. Here I briefly discuss two significant aspects of writing and/or the act of communication conveyed through writing between Ma Liming and me.[20] In so doing, I hope to illuminate the role of literacy in fieldwork and to reflect upon its potential productivity in the ethnographic project.

First, with Ma Liming writing notes, I felt very comfortable about writing in my own notebook. This contrasts with interviewing a non-literate person where one can become acutely aware of the differentials between the literate and non-literate worlds, as happened to me when I interviewed non-literate village doctors and villagers.[21] More important than the concern about the ethnographer's comfort level, however, is the extent to which power differentials are acted out in the process of note-taking and text production. The act of writing leaves a permanent record. In my conversations with Ma Liming, both he and I were participating, more or less simultaneously and equally, in creating such a record of our conversations. Often at the end of a session I would have a wad of Dr. Ma's written notes, along with my own notes, and I would need to retreat to my apartment to sort through it all and try to make sense of the details. After returning from the field, Dr. Ma's notes have become invaluable for much of my analysis.[22] Due to the importance of these notes, I have included some of them throughout the dissertation; I

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[20] This does not include a discussion of the usefulness of sketches, arrows, and tables as aids for explaining the various aspects of and relationships between disorders, plants, human physiology, etc. The iconic form of these written "gestures" was very effective as a heuristic tool in our tutorials. In retrospect I believe writing also slowed down our conversations, which were often of a fairly technical nature, so that I could more fully comprehend the ideas doctors were conveying.

[21] In *Tristes Tropiques*, Lévi-Strauss discusses, among other things, the power of writing. He argues that one who writes holds power: "The scribe['s] knowledge is accompanied by power...he [is] someone who *has a hold* over others." Lévi-Strauss further asserts that "the primary function of written communication is to facilitate slavery" (Lévi-Strauss 1973 [1955]: 298-9).

[22] Dr. Ma and I continue to communicate through letters written in Chinese with a smattering of Tibetan.

view them as important texts that have contributed to the production of this work and I acknowledge Ma Liming as an essential participant in the present knowledge production.

Secondly, writing is a familiar mode of communication both for the Tibetan doctors and me. My world and much of Dr. Ma's (as well as that of the other doctors) is saturated by written language. Although he does not read English and I cannot read either Mandarin or Tibetan at the pace he does, the medium of written language is one that we both engage with on a daily basis. As a graduate student, I have spent a good deal of my time writing and reading. Dr. Ma relies on texts in his work in following recipes and looking up properties of plants that might have slipped his mind. He can recite verses of medical texts that he memorized in medical school. He is also an avid reader of the newspaper (more so than I). Thus it does not surprise me that much of our "conversations" took place with the aid of, and often through the medium of, written language (both Tibetan and Chinese). I am not here arguing that *cognitively* our worlds are a particular way because of our constant engagement with written text (as Havelock, Goody, and Ong argue), although it is possible that the way in which we organize information may be similar due to the influence of literate learning practices. More importantly, what I am suggesting is that written language has played an important communicative and *social* role in my interactions with Tibetan doctors, and in the present research. Being a student of learning in a system of education that relies heavily on textual knowledge processing and production allowed me to have a particular rapport with traditionally trained Tibetan doctors that I was not able to achieve with village doctors. Institutional doctors and I are all literate progeny of educational institutions and

this was an important commonality that enabled me not only to conduct research in the first place, but also to establish respectable relationships with the Tibetan doctors.

Language and tendencies of thought

While communication between Tibetan institutional doctors and me largely took place through the medium of spoken Mandarin and through written Tibetan (and sometimes written Chinese),[23] all plant names, major categories of plant classification, and quite often other medical terms, such as names of disease, were usually communicated in Tibetan only, both spoken and written. In other words, in our Mandarin conversations, Tibetan doctors very often did not translate certain Tibetan terms. This use of Tibetan-only nomenclature has significance in the area of linguistic relativity, often known as the Sapir-Whorf Hypothesis. Below I discuss this significance with reference to three types of Tibetan-only nomenclature: 1) specialized medical vocabulary, 2) plant names, 3) names of categories (for medicinals and plants). I begin with a brief overview of the main arguments stated in the theory of linguistic relativity.

Edward Sapir and Benjamin Lee Whorf are usually credited as the two modern American thinkers responsible for a hypothesis of linguistic relativity,[24] although many of

[23] I communicated with Tibetan doctors largely through spoken Mandarin. This is the language with which I am most fluent. Although I have intermittently studied Lhasa Tibetan throughout the years my spoken fluency is sadly minimal. I did have private part-time tutorials in Rgyalthang Tibetan for about two months in 2001 (for which I thank 王晓松 Wang Xiaosong) but clearly this amount of time was not nearly sufficient to enable me to carry on conversations in the Rgyalthang dialect (although it was not time wasted since I learned much about local pronunciation and grammar and was able to acquire some important local terminology). I am able, with a reliable dictionary close at hand, to read Tibetan texts.

[24] Neither Sapir nor Whorf ever explicitly stated their views as either a "theory" or an "hypothesis." Whorf used the term "linguistic relativity principle" (1956: 221) to describe his theoretical orientation. For sake of simplicity, throughout I use the term 'linguistic relativity hypothesis.'

the ideas incorporated in this hypothesis have precedence in earlier works, such as those of de Saussure (1959) and von Humbolt (1988 [1836]). An argument of linguistic relativity is one which states that language can influence thought by creating habitual tendencies of thinking—"fixed habits" as Sapir called them (1949a: 156)—which are encoded in language. As first formulated by Sapir, languages and the habits that accompany them adhere into systems which are not commensurate:

> It would be possible to go on indefinitely with such examples of incommensurable analyses of experience in different languages. The upshot of it all would be to make very real to us a kind of relativity that is generally hidden from us by our naïve acceptance of fixed habits of speech as guides to an objective understanding of the nature of experience. This is the relativity of concepts or, as it might be called, the relativity of the form of thought.... It is the appreciation of the relativity of the form of thought which results from linguistic study that is perhaps the most liberalizing thing about it. What fetters the mind and benumbs the spirit is ever the dogged acceptance of absolutes. (Sapir 1949a [1924]: 159)

Here we see the application of the concept of relativity, so important in the early Boasian tradition, applied to language. Sapir later argued more forcefully that language organizes experience of reality:

> Human beings do not live in the objective world alone, nor alone in the world of social activity as ordinarily understood, but are very much at the mercy of the particular language which has become the medium of expression for their society...the 'real world' is to a large extent unconsciously built up on the language habits of the group. No two languages are ever sufficiently similar to be considered as representing the same social reality. The worlds in which different societies live are distinct worlds, not merely the same world with different labels attached.... We see and hear and otherwise experience very largely as we do because the language habits of our community predispose certain choices of interpretation... (Sapir 1949b [1929]: 162)

Whorf elaborated on these ideas developed by Sapir and added his own interpretations to the hypothesis.[25] One of the more well-known statements on linguistic relativity given by Whorf is as follows:

> We dissect nature along lines laid down by our native languages. The categories and types that we isolate from the world of phenomena we do not find there because they stare every observer in the face; on the contrary, the world is presented in a kaleidoscopic flux of impressions which has to be organized by our minds—and this means largely by the linguistic systems in our minds. We cut nature up, organize it into concepts, and ascribe significances as we do, largely because we are parties to an agreement to organize it this way...(Whorf 1956a [1940]: 213)

I will return to this quote below in the discussion about language and natural-kind classifications; for now, notice how Whorf states that language organizes reality. Relatedly, Whorf argues that thinking is coded in language:

> Actually, thinking is most mysterious, and by far the greatest light upon it that we have is thrown by the study of language. This study shows that the forms of a person's thoughts are controlled by inexorable laws of pattern of which he is unconscious. These patterns are the unperceived intricate systematizations of his own language—shown readily enough by a candid comparison and contrast with other languages, especially those of a different linguistic family. His thinking itself is in a language—in English, in Sanskrit, in Chinese. (Whorf 1956b [1942]: 252)

Various re-evaluations of both Sapir's and Whorf's work have suggested that the particular sociolinguistic context in which language is utilized is of special significance in terms of what this can indicate about the relationship between language and thought. While Sapir and Whorf focused mainly on grammar and lexicon, new research has incorporated insights from other findings in the areas of pragmatics, ethnography of speaking, and semantics that highlight aspects of the communicative act rather than

[25] For a thorough examination of the development of linguistic relativity, from Boas to Whorf and beyond, see Lucy 1992b.

linguistic structure (Gumperz and Levinson 1996). In particular, the importance of the discursive, or functional, use of language is emphasized by some researchers (see Lucy 1996; Hymes 1972) to emphasize the ways in which reality is attended to, and molded by, linguistic form. Much of the interest in function is linked to an early distinction made by Dell Hymes (in 1966) between the common presumptions associated with linguistic relativity and Hymes' newly proposed conceptualization of *functional* relativity:

> Linguistic relativity is a notion associated, via Whorf (1940), with the structure of language. To my knowledge, Whorf first proposed the term, using it to call attention to differences in linguistic structure, and to their importance for experience and behavior. Less studied, but I think, theoretically prior, is a relativity that has to do with the use of language. The notion of a second type of linguistic relativity calls attention to differences in cultural patterns, and to their importance for linguistic experience and behavior. (Hymes 1966: 116)

Based in part on Hymes' reformulation,[26] the terms of linguistic relativity have broadened in more recent research, especially as researchers continue to ask what Whorf meant by "language" and "thought." Clark (1996) argues that one of Whorf's main premises in formulating his notion of linguistic relativity was incorrect:

> ...Whorf seemed to take for granted that language is primarily an instrument of thought. Yet this premise is false. Language is first and foremost an instrument of communication—the "*exchange* of thoughts," as one dictionary puts it—and it is only derivatively an instrument of thought. If language has an influence on thought, as Whorf believed, that influence must be mediated by the way language is used for communication. (Clark 1996: 325)

While Clark may be too quick to demote the importance of language as a tool of thought (in fact language as a tool of both thought and communication may be equally important),

[26] Although Hymes has been criticized as not being able to show a convincing link between language and thought (see especially Lucy 1992b: 105-12), his attention to function has been influential throughout sociolinguistics in general and the concern with linguistic relativity in particular.

he does draw attention to the important communicative role of language, which Whorf did not.

John Lucy (1996) critiques early work done in ethnoscience with basic color terms (which were generally seen to provide evidence against linguistic relativity) and argues that analysis of color terms needs to take into consideration how these terms are used, otherwise vital meanings can be lost:

> Zuni, a language of the American Southwest, exhibits two terms that we might translate as 'yellow' (Newman 1954). Closer analysis reveals that one term is verbal and refers to things that become yellow by ripening or aging whereas the other is adjectival and refers to things that have had yellow substances applied to them. The customary approach would select one term as "basic" (eliminating the other "nonbasic" term from further consideration) and ignore the aspect of its meaning (i.e., manner of becoming colored) for which there is no English equivalent.... These terms can then be used to discriminate color chips but this hardly reflects their central meaning. (Lucy 1996: 46).

Hence important connotative meanings can become elided in narrowly defined studies of lexicon that do not consider the communicative function that these terms fulfill. Since any study of language is essentially a study of meaning, Lucy argues, loss of crucial meanings is undesirable.[27]

Below I consider how the use of Tibetan-only nomenclature by Tibetan doctors has bearing on both the "early" and "late" versions of the linguistic relativity hypothesis. Before turning to this analysis, however, I will briefly give examples of the Tibetan-only nomenclature that I encountered.

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[27] In this article (1996), Lucy proposes that more research be conducted on the effects of discursive functions. He states that "working out the details of such interactions of structure, function, and ideology remains an enormous untackled problem" (1996: 59) and therefore is cognizant of the complexities involved in identifying the mechanisms of influence involved.

Specialized vocabulary

Ma Liming once said to me, "如果 ***nus pa*** 不大，我们没有用 (*Ruguo **nus pa** bu da, women mei you yong*)." Essentially this sentence translates into English as "If [it—a plant] does not have great potency, we will not use [it]." The term for potency (***nus pa***) was given in Tibetan while the rest of the sentence was in Mandarin. One will notice that the Mandarin-only terms are the least specialized in this sentence while the Tibetan term is the most specialized, referring to one of the critical qualities of a plant from the perspective of a Tibetan doctor. Other specialized terms, such as disease names, especially those that are particular to Tibetan medicine, were likewise seldom translated into Mandarin. When I asked Ma Liming once why these terms were always given to me in Tibetan, I was told that many of these could not be translated into Mandarin—there simply was no equivalent. Sometimes, Dr. Ma added, a possible translation had too many connotations that linked it to the Chinese medical system and it was misleading to use the Mandarin term. For example, one of the three 'humors' in Tibetan medicine is ***rlung***, often translated into English as 'wind.' It can similarly be translated into Chinese using the term 风 (*feng*), but Dr. Ma explained that the term *feng* has a slightly different nuance in Mandarin (as does 'wind' in English) due mostly to its connection with Chinese medicine. While it was difficult for me to grasp the essential difference between Chinese *feng* and Tibetan ***rlung*** (mostly because my knowledge of Chinese medicine is quite limited), Dr. Ma insisted that there is a difference—and an important one. Even medical texts that are written in Chinese, such as 迪庆藏药 *Diqing Zangyao* and 藏药志 *Zangyao zhi*, do not translate the three humors of Tibetan medicine into Chinese. Instead, they use

transliterations, Chinese phonetic approximations of Tibetan terms: 赤巴 (*chiba*) for ***mkhris pa***, 培根 (*peigen*) for ***bad kan***, and 龙 (*long*) for ***rlung***. Sometimes literal translations are made of lexicon, especially for disorder names, from Tibetan to Chinese. For example, the disorder known in Tibetan as ***chu ser*** ("yellow water") is literally translated as such in Chinese, 黄水 (*huangshui*), usually with quotation marks around the term. Once I came upon a Chinese term used in the text *Diqing Zangyao* that I could not interpret: 血分实热 (*xuefen shire*) (literally: "divided blood, real heat"). This is one of the disorders that the plant ***ba sha ka*** is supposed to treat. When I asked Dr. Ma about this disorder, he said that he himself did not know what this term meant, that it was from Chinese medicine and that a Tibetan doctor would simply have used the term ***khrag nad*** (blood disorder). Dr. Ma used this example as an indication of how foreign, Chinese terms can get introduced into Tibetan medicine with the potential to confuse.

Plant names

In addition to specialized vocabulary, most plant names were only given in Tibetan. Doctors explained to me that quite often they do not know the Chinese name for the plant since they never in fact have to use such a "foreign" name. Since training in Tibetan medicine is done in the Tibetan language, doctors rarely learn the Chinese name for a plant if indeed such a name exists. In fact, a few Tibetan plant names do not seem to even have Mandarin counterparts (or none that I have been able to locate). So part of the explanation for the dominance of Tibetan plant names relies on usage: Tibetan names are

used because those are the names with the most widespread circulation among Tibetan doctors.

Yet sometimes there is a question about the equivalence of a Chinese name to a Tibetan one. Two plants may have different names in Tibetan but the same name in Mandarin or vice versa. For example, ***bya rgod spos*** in Tibetan, although recognized to have two varieties (one superior, one inferior), can have two completely different names in Chinese (黄毛翠雀花 *huang mao cui que hua*, or 皱叶毛建草 *zhou ye mao jian cao*).[28] In contrast, two species of *Salix* are differently identified in Tibetan as ***ri lcang 'byar pa*** and ***rgya lcang phra mo*** but receive the same name in Chinese (柳树 *liushu*).[29] In ethnobiology, such phenomenon is known as over- or under-differentiation (see Berlin 1973: 267-8). Over-differentiation is when one taxonomic system makes more distinctions of a particular taxon than does another taxonomic system. Conversely, under-differentiation is when one taxonomic system makes fewer distinctions of a particular taxon than does another taxonomic system.[30] Generally speaking, over- or under-differentiation, in systems of botanical classification especially, indicates cultural and/or

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[28] Incidentally, the Chinese seems to conform more closely to western scientific classification, one variety being *Delphinium sp.* and the other *Dracocepharum sp.* I do not know the etymological history of these terms in Chinese (whether the names were modified due to influences from western botany or whether they have been in use in Chinese medicine for centuries).

[29] While there are distinctions made in Chinese between some varieties of *Salix*, these two examples as discussed in Shel gyi Me long do not appear to be distinguished in Chinese.

[30] The comparison in ethnobiology is usually between an "indigenous" system of taxonomy and that recognized by western science, usually considered an "etic grid" (see Hunn 1975). Thus an example of under-differentiation is one where the indigenous system makes fewer classificatory distinctions of taxa than are recognized in western science. For our purposes here, however, the comparison is not with western scientific taxonomy *per se* but with that as represented in Chinese nomenclature, which is undoubtedly influenced by western science but which is grounded in an equally indigenous "Chinese" system of classification. I recognize that I am using the terms under- and over-differentiation differently than set out by Berlin (1973), but I find that the use of these concepts, with a slight alteration, is productive in the present comparison.

functional salience of taxa (given equal environmental distribution).[31] Thus the fact that certain plants may receive *more* levels of distinction in Tibetan, as compared to Chinese, suggests that these plants have more significance in Tibetan medicine, or perhaps Tibetan culture in general, than in Chinese, and vice versa. In terms of medicine, the significance is most likely due to particular healing properties that the plants possess.

Names of categories

In Chapters Five and Six I examine classifications of plants and disorders. Since I did not engage doctors in extensive discussions about the classification of disorders, most of what I discuss in Chapter Six relies on nomenclature found in medical texts, which are not surprisingly all in Tibetan.[32] Yet for plant classifications, which I did discuss with Tibetan doctors at length, category nomenclature was always given to me in Tibetan. In fact, some of the categories of Tibetan medicinals in general and plants in particular are quite difficult to translate into Mandarin. For instance, the category of ***rtsi sman*** (Exudents), which includes medicinals derived from both plants and animals, does not seem to have an accurate Mandarin counterpart (nor, one could argue, a very precise English one either). It may be for this reason that an entirely different schema of categorization is used in Chinese texts, one that collapses some of the categories that are most difficult to translate into larger, more manageable categories in Mandarin.[33]

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[31] But see Hunn 1999 for a discussion of how *size* may be an important factor in determining degree of discrimination within classificatory systems. Hunn's argument is largely based on analysis of fauna.
[32] I can speculate, however, that names most likely would have been given to me in Tibetan.
[33] I discuss this more fully in Chapter Five.

Analysis

The findings discussed here are significant in terms of linguistic relativity, both narrowly and broadly defined. First, although both Sapir and Whorf were specifically concerned with the habitual language and thought of an entire speech community, particularly as encoded in grammatical structure, and not necessarily with the rarified language of specialists, the findings discussed here suggest that much of the semantic domain of Tibetan medicine in Tibetan language does not map neatly onto that in Chinese. This is not to say that translation (from Tibetan to Chinese, or vice versa) is impossible, just that it is problematic. In other words, the present research seems to indicate that Tibetan doctors use Tibetan language instead of Mandarin in some instances because the use of Mandarin would alter the meaning and/or accuracy of an utterance. However, the study is not a comprehensive comparative analysis of the semantic domains of Tibetan medicine and medicinal plants in Chinese and Tibetan and therefore cannot claim to provide conclusive evidence as to the extent of disjuncture between the two languages.

More confidently, I submit that the use of Tibetan-only nomenclature in Mandarin conversations indicates the extent to which the cognitive world of Tibetan doctors is formed around the use of Tibetan language, which is both the native and the professional language of these specialists. Because their training in Tibetan medicine, and most of their practice, is steeped in Tibetan language, their conceptualizations of important terminology and materia medica are crystallized around articulations in Tibetan language. That is to say, while in some, although not all, instances, they *could* use Chinese terms (as stated earlier, translations are not impossible, just problematic), their tendency is to

use Tibetan instead. How are we to interpret this tendency? Below I examine two possibilities, the first of which is clearly a functional explanation, and the second of which combines both the narrow and broad definitions of linguistic relativity.

First, the use of Tibetan-only nomenclature in Mandarin conversations may reflect a type of code-switching (Hymes 1974: 103-05). While our conversations bounded along in Mandarin, since this was the common language between us, the doctors may have intentionally switched into Tibetan to highlight not just a linguistic difference but a social one. Because Tibetan language in China is couched in ethnic terms, and because Tibetan medicine is socially construed as an ethnic medicine, such possible code-switching is undoubtedly ethnic in nature. Hence Tibetan doctors could consciously use Tibetan-only nomenclature to reinforce their own identity—to me and to themselves—as Tibetan. Or, we could look at this from another, related perspective. Because the literate Tibetan medical tradition is so rooted in historical text, we can view some of the language that Tibetan doctors use, such as Tibetan-only nomenclature in Mandarin-dominated utterances, as enactments of history—and a Tibetan history at that. In this way, both the spoken and the literate aspects of doctors' training and experience are combined into an expression of identity. In either case, the use of Tibetan nomenclature may have acted as a signal of cultural and ethnic differentiation.

Secondly, the centrality of Tibetan language in the personal and professional lives of Rgyalthang doctors is due to both socialization and habituation. Doctors learn these important terms in Tibetan during their medical training (and perhaps before, as native speakers of Tibetan) and they habitually use these Tibetan terms. Such socialization and

habituation, in turn, can have cognitive consequences: specialized terms have been encoded in Tibetan in their cognition. Cognitive psychologists are particularly interested in the effects of linguistic coding on memory and recall, discussed mostly in terms of computational efficiency. As Hunt and Agnoli (1991) argue:

> Coding considerations determine the demands that a language places on its users' psychological capacities. Recognizing and selecting lexical items places demands on long-term memory. Analyzing the structure of an utterance taxes short-term memory. The historical record suggests that languages evolve to move the burden from the short-term to the long-term memory system. Hunt and Banaji (1988) observed that in the last 20 years southern California surfers have invented a vocabulary for describing waves, which includes the descriptive terms *hollow*, and *flat*. Presumably the surfers of the 1950s could describe the same waves by using sentences, thus increasing the burden on their short-term memory. The modern surfer has traded expensive space in short-term memory for cheaper space in long-term memory.... This means that at any point in time a language user thinks most efficiently about those topics for which his or her lexicon has provided an efficient code. (Hunt and Agnoli 1991: 378)

Citing a variety of studies, Hunt and Agnoli (1991) continue on to argue that indirect memory records are linguistically based and therefore subject to exhibiting "biases" of the language in which they were coded.[34] This, they argue, indicates a "Whorfian effect." Applying this idea of computational efficiency to Rgyalthang doctors, we could argue that they have stored lexical items with which they have constant use (medical terms and plant names as memorized in medical texts) in long-term memory. Such memorization relies in part on the cadence of language, which is different in Chinese and Tibetan. When Ma Liming is listing characteristics of plants by retrieving them from his memory, he is undoubtedly accessing them in Tibetan. Translation to Chinese is possible, but not preferable (the cognitive psychologist would say because it is too computationally

[34] Such biases are tracked in cognitive psychology through a variety of ways, sometimes involving a measure of reaction time in free recall lists.

expensive). This may account for why Ma Liming's notes always list Tibetan terms first and Chinese second (if at all).[35] Hence a tendency in use leads to a tendency of thought, which is the basic argument of linguistic relativity.

A related point of interest in the findings discussed here is about methodology. Tibetan doctors themselves insist that many Tibetan terms cannot be accurately or adequately translated into Chinese. Since these doctors are bilingual professionals with some training in, and certainly some personal exposure to, the Chinese medical system, they are in an excellent position to comment on this issue of translatability. Even granting that they may not be unbiased as to which medical system they deem more effective or worthwhile (are they medico-centric?), their perspective is important. It provides a point of departure for the ethnographer precisely because it indicates the degree to which language is seen as a significant element of difference from the emic perspective.

In summary, not conclusive but rather suggestive support is given to the linguistic relativity hypothesis in the present discussion, in terms of the parameters set by Sapir, Whorf, and later researchers.

Language and natural-kind classification

Any analysis of natural-kind classification consists of important linguistic dimensions. Below I review the dominant approach to language in the domain of natural-kind classifications, as well as critiques to this approach, and then discuss the potential usefulness of the linguistic relativity hypothesis in infusing new life into the examination

[35] An interesting study would be to examine reaction times of free recall of these items by Tibetan doctors in both Tibetan and Mandarin (when Mandarin is known).

of language in natural-kind classifications. I will attempt to restrict my discussion here to the linguistic dimensions of natural-kind classifications (and leave a more generalized discussion of natural-kind classifications to Chapter Five) although admittedly it is difficult to separate classifications themselves from the nomenclature that labels them.[36]

The linguistic focus in ethnobiology has been on nomenclature in terms of taxonomic structure (are there consistent taxonomic levels labeled in various folk biological systems?) and patterns of nomenclature (are organisms labeled using similar principles of naming?). Berlin (1992) has proposed five basic principles of nomenclature:

1. Taxa of the ranks of kingdom and intermediate are generally not named. There is growing evidence that some covert life-form taxa may also be found. When such taxa are labeled, they often show polysemous relations with taxa of subordinate rank.
2. Names for plants and animals exhibit a lexical structure of one of two universal lexical types that can be called primary and secondary plant and animal names. These types can be recognized by recourse to linguistic, semantic, and taxonomic criteria. Primary names are of three subtypes: simple (e.g., *fish*), productive (e.g., *catfish*), and unproductive (e.g., *silverfish*). Secondary names (e.g., *red maple, silver maple*), with generally specifiable exceptions, occur only in contrast sets whose members share a constituent that refers to the taxon that immediately includes them (e.g., *maple*).
3. A specifiable relationship can be observed between the names of the taxa and their rank. Life-form and generic taxa are labeled by primary names; subgeneric taxa are labeled, in general, with secondary names.
4. There are two well-understood conditions under which subgeneric taxa may be labeled by primary names, although these two conditions do no account for all of the empirically observed data. The first condition (4a) occurs when the name of the prototypical subgeneric is polysemous with its superordinate generic. Disambiguation of polysemy is accomplished by the optional occurrence of a modifier glossed as 'genuine' or 'ideal type.' The second condition (4b) occurs when nonprototypical subgenerics refer to subgeneric taxa of great cultural importance.
5. Ethnobiological nomenclature is semantically active in that the linguistic constituents of plant and animal names often metaphorically allude to

[36] Chapter Five will also examine categorical nomenclature of materia medica and plant classifications in Tibetan medical texts.

> morphological, behavioral, or ecological features that are nonarbitrarily associated with their biological referents. (Berlin 1992: 34-5)

Much debate in ethnobiology is couched in terms of universals and particulars. In terms of language, Berlin's universalist principles of nomenclature are accepted by many ethnobiologists in large part because they seem to successfully describe findings thus far—at least in part (below I will discuss examples that call these principles into question). Of course there is more to a linguistic consideration of classification than just nomenclature, however, as the above discussion about functional relativity should have made clear. Yet for most linguistic analysis in ethnobiology, nomenclature is usually the focus. Although not explicitly stated in these principles, a foundational argument of Berlin's universalist stance on classifications is based on the concept of taxonomic hierarchy, as stated by the third principle of *categorization* in his 1992 formulation: "Ethnobiological systems of classification are organized conceptually into a shallow hierarchic structure" (Berlin 1992: 31).

There are several studies, with linguistic interest, that have called the significance of these principles into question, however. Hunn and French (1984) argue that such principles, in particular the notion of hierarchical set inclusion, disregard alternative ways of naming natural kinds, such as exhibited among Sahaptin-speakers of the Columbia Plateau. It is not that there is *no* hierarchical set inclusion in the nomenclature of Sahaptin-speakers, Hunn and French argue, but that such classification is but one among three variations:

> In Sahaptin there are *three* nomenclatural patterns commonly used to reflect *two* distinct types of formal relations among taxa. Binomial nomenclature used to indicate class inclusion is one of these. More frequently used in Sahaptin are two

> other naming patterns. These latter indicate relations of coordination—a relationship sometimes referred to metaphorically by Sahaptin consultants in terms of human social or kinship relations... (Hunn and French 1984: 77)

So while taxonomic hierarchy may be one of the organizing principles of nomenclature within a linguistic community, it is not necessarily the only one—and it may not be the most salient at that.

Wierzbicka (1984) also criticizes the dominance of taxonomic analysis in literature on human categorization. While her argument is not limited to natural kinds, it does include important examples from this domain. She argues that most ethnobiologists are not systematic enough in their linguistic analysis of natural kinds; if they were, they would notice that *semantically* taxonomic hierarchy is a fallacy:

> One source of error lies, I think, in the common assumption that the conceptual relation "kind of" is coextensive with the referential relation of set inclusion. The reasoning goes as follows: all oaks are trees, and not vice versa, therefore an oak is a kind of tree; all carrots are vegetables, and not vice versa, therefore a carrot is a kind of vegetable... From a logical point of view this may be so, but from a semantic point of view this reasoning is fallacious. Every policeman is somebody's son, and not vice versa, but this does not mean that a policeman is conceptualized in English as a kind of son. (Wierzbicka 1984: 314)

Wierzbicka argues that important social and cultural (my terms) meanings must be carefully analyzed in order to understand how natural kinds are related to one another in a system of classification; taxonomic hierarchy does not always account for this. As an example, she cites the specific cultural use of lilacs:

> ...Tyler (1978: 276) suggests that in English *lilac* is a "kind of bush." But, in fact, in English *lilac* is thought of more in terms of flowers than in terms of bushes. (I am not saying that it should be defined as "a kind of flower"; I am only saying that it is not appropriate to define it as "a kind of bush".) (Wierzbicka 1984: 316)

While Wierzbicka states that the domain of biological kinds may be more of an exception than other "purely functional" domains, such as toys and furniture, in terms of the importance of taxonomic hierarchy (1984: 234-5, although several of her examples, such as the one cited above, *are* of biological kinds), she alerts us to the importance of discriminating semantics from logic in any system of classification. I will return to this point in Chapter Five.

Nonetheless, the universality of Berlin's principles of nomenclature is generally accepted because although not always precise, the principles are not wrong either. Hence Whorf's claim that "we dissect nature along lines laid down by our native languages" (Whorf 1956a [1940]: 213) is, by default, dismissed as violating the principles codified by Berlin. Whorf's position seems especially untenable when contrasted with Berlin's statement "...human beings everywhere are constrained in essentially the same ways—by nature's basic plan—in their conceptual recognition of the biological diversity of their natural environments" (Berlin 1992: 8). Although here Berlin is not just referring to nomenclature but to classification of natural kinds in general, the contrast between the relativist and universalist positions seems quite blatant. A perusal of the literature in ethnobiology, however, reveals that few researchers tackle the question as to whether the linguistic relativity hypothesis can be usefully applied in any way to ethnobiological findings. This, I submit, is due to three points. First has to do with Whorf's effective use of hyperbole and how such polemical statements become transformed into a linguistic determinism, which states that language *determines* thinking, rather than simply influences thinking. Linguistic relativists generally refute such a statement, which they

see as being a simplistic overstatement of the more broadly defined hypothesis that has developed beyond Whorf's work.[37] As the previous discussion has indicated, the linguistic relativity hypothesis has been developed and reconceptualized by a number of researchers and many of Whorf's tenets, especially the more extremist ones, have been qualified.

Second, logic would seem to indicate that if universalist principles are true, "relativist" anything must be false. This may point to the role that binary opposites play in scholarly debate more than anything. Yet let us return again to the example of Sahaptin speakers as discussed in Hunn and French (1984). It is clear that universalist principles can be applied to this example: taxonomic hierarchy is exhibited in one system of nomenclatural patterning. And yet one could likewise argue that the naming patterns used more frequently (those that indicate relations of coordination, rather than hierarchy) support a more relativist stance in which "nature" for Sahaptin speakers is carved up more along the lines set down by their native language, where attention to social or kinship relations is elaborated. It is difficult to argue this conclusively given the evidence presented and it is especially difficult to show causality, but it seems possible. It is interesting to note, for example, that conversations between Sahaptin speakers and Hunn and French were conducted in English, with both the characteristics and individual names of plants and animals given in Sahaptin (1984: 75-6). This may indicate the extent to which the plant and animal lexicon was encoded in Sahaptin—and therefore less

[37] Admittedly, Whorf was a bit unclear at times as to how strong an influence language has on thought; statements such as this seem to indicate a more deterministic stance than do other statements. See Lucy (1992b) for a thorough examination of Whorf's somewhat ambiguous position.

retrievable in English—for the consultants. My point here is that universalist and relativist interpretations are not necessarily mutually exclusive.

Third, few ethnobiological investigations compare classifications as exhibited in *two* languages by one speech community. One noted exception is the work of Elsa Gomez-Imbert (1996) in the Vaupés area of northwest Amazonia. This area is a multilingual one with a practice of linguistic exogamy, where marriage takes place between two individuals who speak the same language. During the course of her research, Gomez-Imbert discovered morphological features of faunal classification in the Kubeo language that do not exist in related "sister" languages, all of which belong to the Tukanoan family of languages. In fact, basic grammatical distinctions between animate and inanimate nouns in Tukanoan languages are violated in the domain of faunal nouns in Kubeo. For example, in most Tukanoan languages, nominal classification adheres to the following pattern:

> [1] the animate feminine classifier appears on faunal designations only when references is intended to female members of the species, [and 2] shape classifiers appear systematically and exclusively on "inanimate" nouns. (Gomez-Imbert 1996: 447)

In Kubeo, however, faunal nouns can be marked either by a feminine classifier (regardless of whether the references is male or female) or a shape classifier. As Gomez-Imbert explains:

> ...the generic terms for 'deer' and 'armadillo,' which are inherently masculine and bear no classifier in the other Tukanoan languages, each have a different marking in Kubeo: 'deer' is 'feminine,' like women, and 'armadillo' 'round,' like fruit. (Gomez-Imbert 1996: 447-8)

Such distinctions, as made in Kubeo, are marked in Baniwa, a language belonging to the Arawakan language family, and spoken by a group with whom Kubeo-speakers have practiced linguistic exogamy for approximately two hundred years. Gomez-Imbert argues that the cognitive schema of animal classifiers in Baniwa has been imposed onto Kubeo, therefore arguing that the cognitive frame of one language is not necessarily commensurate with another. As Gumperz and Levinson summarize, "The conclusion [from Gomez-Imbert's work] would be that even in such intensely multilingual communities, it is possible to maintain distinct conceptualizations of domains attached to specific languages" (Gumperz and Levinson 1996: 371). Such detailed linguistic analysis of natural kinds in a multi-lingual setting are actually quite rare in ethnobiology.

It is interesting that Berlin's principles of nomenclature focus on patterns of naming and not quiet as extensively on how the names are semantically related. This is, of course, because most semantics are not universal. In terms of the present research, while many of Berlin's principles of nomenclature seem to hold true in examining naming patterns, some of the principles of organization do not. So while ***a ru ra*** (*Terminalia chebula*) may be classified as a "woody/tree-like medicine" (which is in keeping with Berlin's fifth principle), one could argue, á la Wierzbicka, that *semantically* ***a ru ra*** is not conceptualized by Tibetan doctors as "woody/tree medicine" but rather as a medicine that treats ***rlung*** disease, labeled "***rlung*** medicine" (see Chapter Five). This also indicates that the taxonomic structure of set inclusion does not effectively describe the habitual tendency of classifying (and labeling) most medicinal plants by Tibetan doctors, especially since one plant can be used to treat several types of disorders and therefore be

conceptualized as "X, Y, or Z medicine." So while the individual names of plants may not change dramatically (I did not find, as did Hunn and French, for example, that there were names for *particular* plants that presented an alternative to the case of hierarchy), the categories into which plants are organized vary, therefore reflecting semantic salience.

Above I have discussed how the present research is suggestive of the possible affects of language on thought. Admittedly, there may be more restraints that indicate universalist tendencies in the domain of natural kinds than in that of disorders. Yet some relativistic tendencies of thought do seem plausible as well, particularly as suggested by the concept of encoding, and a more broadly defined type of linguistic relativity, which examines the function of language. Further work in the field of ethnobiology should aim to engage both the universalist and the relativist positions in examining the linguistic complexities of natural-kind classifications.

Conclusion

The overriding cohesion to a discussion of language in this dissertation pivots around the importance of context and function. The cultural ideology of literacy, both from the perspective of Tibetan and PRC national cultures, as well as training in Tibetan medicine, supports Rgyalthang doctors in having an important relationship to the written word. Written Tibetan language becomes a central anchor in the conceptualizations that Tibetan doctors have of medicine and medicinal plants. Such a cognitive affinity suggests linguistic influences on a "tendency of thought" as explicated in the hypothesis of

linguistic relativity, both narrowly and broadly defined, although the effects on plant (natural-kind) nomenclature are not well documented.

Chapter Five:
Plant Classifications and Nomenclature

The chapter explores the various schemas and sources of medicinal plant classifications utilized by Rgyalthang doctors, and it examines the implications of these findings in terms of natural-kind classification. Essentially I pull from four sources of data for my analysis of classification: verbal interviews (some directed, some open-ended) and pile sorting tasks with Rgyalthang doctors,[1] notes written by Dr. Ma to aid in my comprehension of plants and Tibetan medicine, and medical texts. While an analysis of texts might at first seem to remove us from the ethnographic setting, taking us into a world of erudite scholarship, this is not the case. Texts are an integral part of Tibetan doctors' professional lives, from the time of medical training to that of established medical practice. Furthermore, the systems of classification that are enumerated in medical texts are referenced and utilized by Tibetan doctors. I elaborate more on this importance of texts below.

A principal goal in this chapter is to highlight the changes in plant classification through time in successive canonical medical texts. This has important implications for understanding the cognitive worlds of Tibetan doctors and has significance more broadly in the field of ethnobiology for two reasons. First, while most ethnobiologists concur that systems of classification are cultural systems, and thus subject to adaptation and alteration, little research in the field is aimed at discovering protracted trends within a

[1] For comparison, I include information on doctors I interviewed in the Dechen area in 2001 in footnotes. For more information on these doctors and the results of interviews with them, see Appendix C.

classificatory system that indicate change.[2] Instead, plant classifications within a cultural milieu tend to get represented as stable and enduring. If change is discussed, it is usually in the form of quite recent technological and/or developmental alterations; seldom is a long-term perspective taken. In part this may be due to the privileging of oral traditions in ethnobiology; historical, written documents are seldom referenced because they seldom exist among the target population (I will return to this point below). But possibly this may point more generally to a tendency in ethnobiology for viewing the world in binary oppositions of "traditional" and "modern" (where "traditional" is usually non-Euro-American), based on an assumption that although "traditional" systems may have undergone alterations through time, such changes are not terribly relevant at present. Hence much ethnobiological research seems to imply that what is important for the field is traditional systems as we find them today and how they come into contact with the modern world: what they may have to offer, what they may tell us about human tendencies, potentials, and diversity, and how such systems adapt to the modern world. While I would agree that these are worthwhile topics of research to pursue, I think that it is equally important that we remain diligent in our recognition that "traditional" systems themselves, as we find them today, are products of change, adaptation—in short, histories. This is not to deny that there are significant political and technological changes that arrived with the modern era but rather to remind us of the constancy of change in cultural systems, which has existed for millennia. It is important to demonstrate such change wherever possible, which I do in this chapter.

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[2] Two noted exceptions are Berlin, Breedlove, Laughlin, and Raven (1973) and Hunn (2001).

Secondly, as pointed out above, since oral traditions are more commonly studied in the field of ethnobiology, written texts are seldom analyzed. As Chapter Four has argued, however, literacy is an integral part of the tradition of Tibetan medicine and therefore the cognitive lives of Tibetan doctors. Consequently, in the present chapter I examine the plant classifications in Tibetan medical texts and discuss how Rgyalthang doctors interact with these classifications. I submit that this novel use of written texts in the field of ethnobiology is important for three main reasons. First, an analysis of texts can provide a more comprehensive understanding of the practice of classification. While the effects of literacy are not necessarily hegemonic, they are certainly important in many cases, such as among Tibetan doctors. Secondly, this approach pushes the purview of ethnobiology beyond the privileging of oral traditions. While I do not mean to detract from studies of oral traditions, there are rich literate traditions within which important studies of classification can and should be conducted. Such work can only broaden our understanding of human cognition and cultural practices of classification in particular and knowledge and believes about the natural world in general. Lastly, in examining literate traditions, a critical step can be made toward breaking down the simple dichotomy of "traditional" and "modern" systems of knowledge insomuch as changes can be viewed and tracked more along the lines of a continuum, so that "traditional" and "modern" become conceptualized more as levels of degree than absolute differences.

Plants in Tibetan medicine

To some extent a study restricted to plants in a system of medicine that includes plants, animals, minerals, and other sundry ingredients is by definition limited. One of the first points a Tibetan doctor will mention when giving a brief introduction to Tibetan medicine is how not only plants but also animal parts and minerals are used.[3] Sometimes a doctor would ask me why I was only interested in plants. I would explain that since the total number of ingredients used in Tibetan medicine is in the several thousands, I decided that I had to begin to study only part of this whole and that I chose plants because the largest percentage of ingredients used in Tibetan medicine are derived from plants.[4] Although non-plant material is utilized extensively and sometimes has greater concentration of power than plant material, most medicine recipes consist of a majority of plant materials. Indeed, there are numerous medicine recipes that contain only plant materials (the same is less common for animal- or mineral-only recipes). In addition, since some of the animal materials that have been utilized in Tibetan medicine are now endangered species (leopards, tigers, bears, rhinos, elephants), and trade in these materials is at least theoretically curtailed by international law, it is highly likely that fewer of these materials are being utilized today. In Rgyalthang, one ingredient in particular, deer musk (***gla rtsi***), has become extremely difficult to obtain and is now

[3] A few doctors I know seem to emphasize that even something as potentially deadly as mercury is used with great benefit in Tibetan medicine if one has the proper knowledge. Doctors seldom mention the use of such oddities as human feces, semen, and menstrual blood; I suspect that although these ingredients are mentioned in canonical texts there is probably no use of them in contemporary state-sponsored Tibetan medicine.

[4] One explanation given for the reason why plants often have a more substantial role than animals in many medical systems has to do with the phytochemcial composition of plants due to the process of evolution. In short, the argument states that because of their stationary existence, plants have evolved chemical defenses, which most animals (that can usually either fight or take to flight) do not have. The chemical defenses of plants, therefore, have proved to contain bioactive ingredients useful for curing purposes.

generally being substituted with ***bya rgod spos*** (*Delphinium sp.*). At the Tibetan Hospital in Zhongdian, the doctors keep a small stash of musk under lock and key; it is used only very sparingly.[5]

From a philosophical point of view, plants are symbolic representations of growth. The system of healing described in Book I, Chapter 6 in the classic medical text ***Rgyud bzhi*** uses the metaphor of a tree. This tree consists of 3 roots, 9 trunks, 47 branches, 224 leaves, 2 types of flowers and 3 types of fruit (figure 5.1).

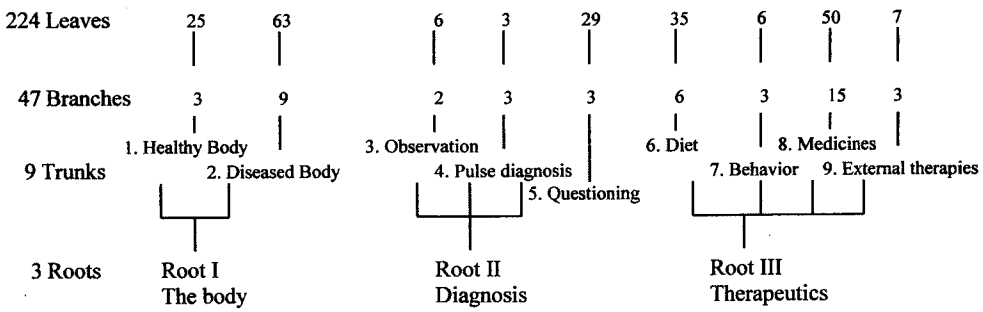

Figure 5.1 The Tibetan medical system of healing, as described in the *Rgyud bzhi*. Adapted from Finckh (1978).

Medical paintings (***thangkas***) designed as study aids utilize the form of a tree to illustrate the three roots of this system of medicine: 1) the body, 2) diagnosis, and 3) therapeutics. Each root is represented as a tree, with trunks, branches, leaves, flowers, and fruit signifying various aspects of that particular root (see Figures 5.2, 5.3, 5.4). The Medicine Buddha (Sangs rgyas Sman lha), sometimes called the King of Medicine (Sman pa'i Rgyal po), is usually depicted as holding a bowl that contains the fruit of the ***a ru ra*** plant

[5] I could never actually determine what this musk was used for, but I was told that it was generally not mixed in the prepared medicines made at the hospital and would only be used on special occasions. It is interesting to speculate about the role of medicinals, especially highly prized ones, in local circuits of gift exchange between doctors and others. Prepackaged medicine, particularly from India (blessed by the Dalai Lama) and Lhasa, is often given as gifts among family and friends in Rgyalthang.

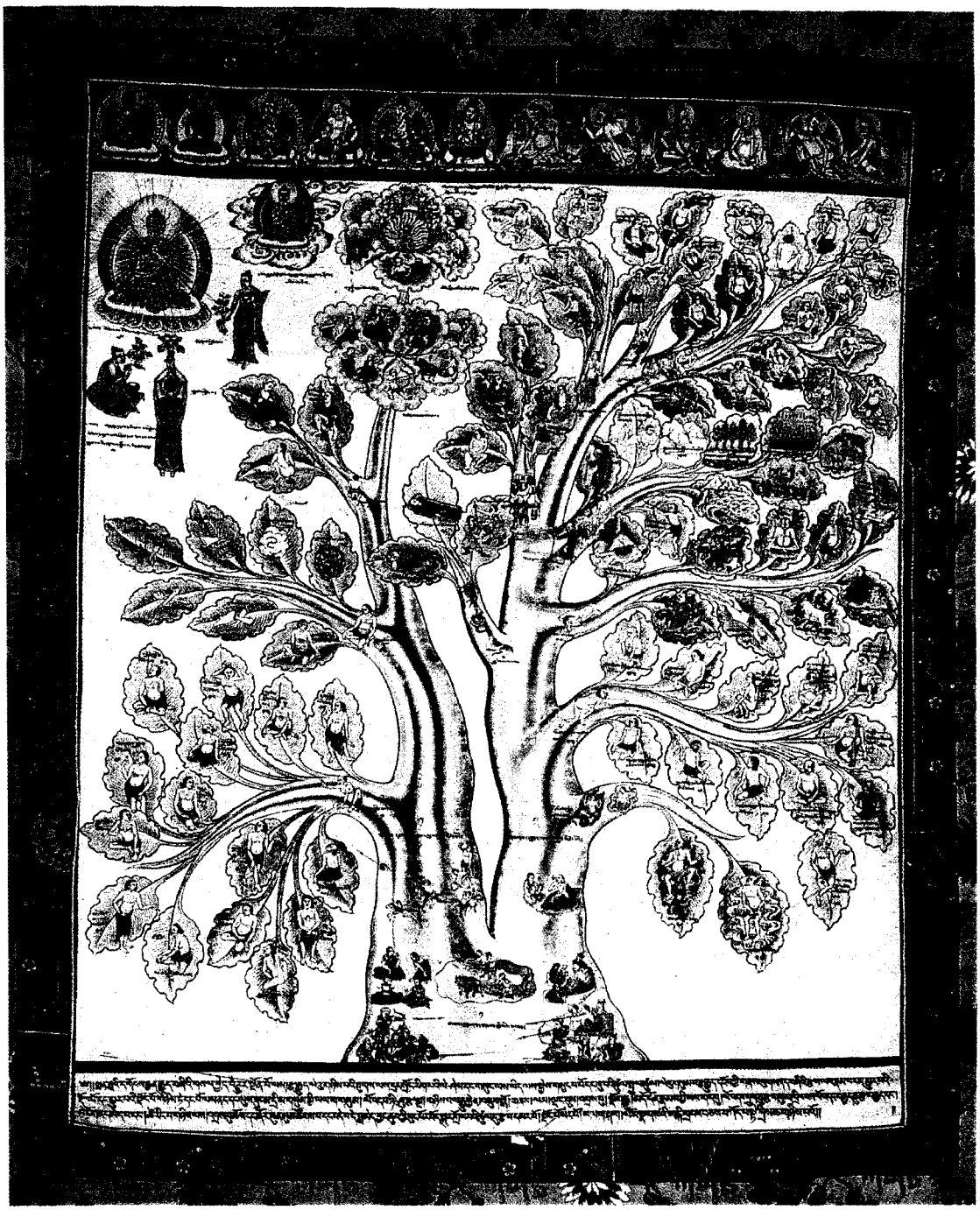

Figure 5.2 Root I: The Body. The trunk on the left shows the healthy body, while that on the right represents the diseased body. Source: *Tibetan Medical Thangkas of the Four Medical Tantras.*

Figure 5.3 Root II: Diagnosis. The trunk on the left shows observation, the middle trunk pulse diagnosis, and the right trunk the process of querying the patient. Source: *Tibetan Medical Thangkas of the Four Medical Tantras.*

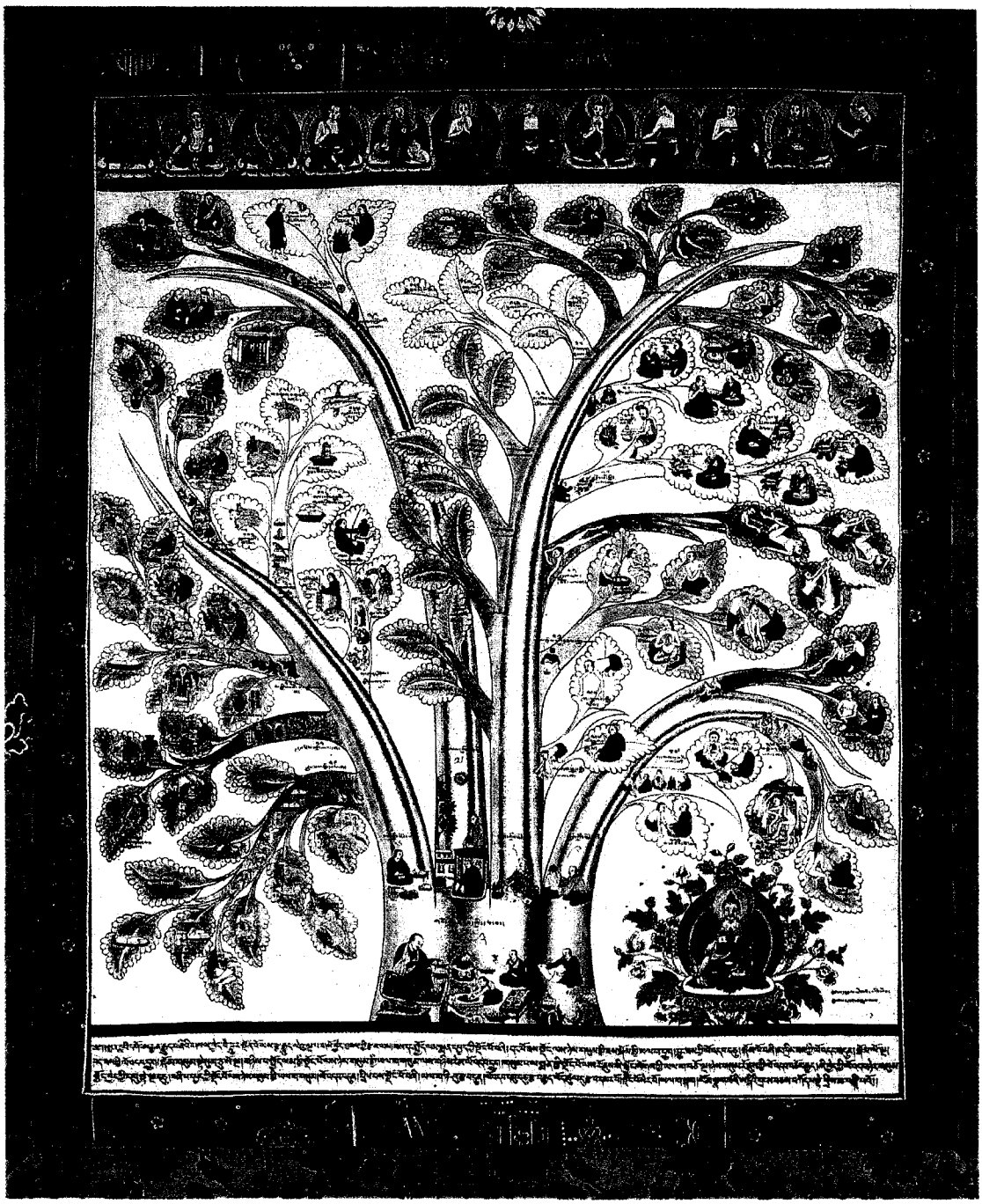

Figure 5.4 Root III: Therapeutics. The trunk on the left indicates diet while the one directly to its right illustrates behaviors (that aid in healing). The third trunk from the left is that of medicines; the trunk on the far right is for external therapies. Source: *Tibetan Medical Thangkas of the Four Medical Tantras*.

Figure 5.5 Celestial palace of the Medicine Buddha. The Medicine Buddha is in the very center of the painting, depicted in the usual lapis blue. The southern gate of the palace is in the lower part of the painting (indicated by an image of the sun). Source: *Tibetan Medical Thangkas of the Four Medical Tantras.*

(*Terminalia chebula*); ***a ru ra*** is used extensively in Tibetan medicine (as well as in Āyurveda, the traditional medical system of India) and has a robust reputation as a cure-all.[6] Paintings that portray the celestial palace of the Medicine Buddha depict hundreds of medicinal plants surrounding this abode (see Figure 5.5). The very opening pages in the ***Rgyud bzhi***, Book I, describe this palace and the various medicinal plants that grow on its four sides:

> To the south of [the City of Medicine] lies the mountain called Vinvya [sic: Vindya, in Tibetan: ri bo 'bigs byed] (Thunderbolt), endowed with the power of the sun. Here are found pomegranate, black pepper, longpepper, white leadwort, etc., i.e. medicines which cure cold disorders, and a forest of medicines having hot, sour, salty tastes and hot, sharp (coarse and light) powers. The medicinal roots, trunks, branches, leaves, flowers and fruits are fragrant, attractive and pleasing to behold, and wherever their scent pervades no cold disorder will arise.
>
> To the north of the city lies the mountain called Himavata (Snow Mountain) which is endowed with the power of the moon. Here are found sandalwood, camphor, eaglewood, neem, etc. (medicines) which cure fevers, and a forest of bitter, sweet and astringent medicines having cool, blunt (and firm) powers. The medicinal roots, trunks, branches, leaves, flowers and fruits are fragrant, attractive and pleasing to behold, and wherever their scent pervades no fever will arise.
>
> To the east of the city lies the mountain called Spos.ngad.ldan (Fragrant Mountain), upon which grows a forest of (chebulic) myrobalan [*Terminalia chebula*]. Its roots cure bone disorders, the trunks cure flesh disorders, the branches cure diseases of the channels and ligaments, the bark cures skin disorders, the leaves cure disorders of the vessel organs, the flowers cure disorders of the sense organs and the fruits cure disorders of the heart and other vital organs. At the tops (of the trees) ripen the five types of (chebulic) myrobalan which are endowed with the six tastes, the eight (natural) powers, the three post-digestive (tastes) and the seventeen secondary qualities. These cure all types of diseases and wherever the scent of these fragrant, attractive and pleasing medicines pervades, the four hundred and four diseases will not arise.
>
> To the west of that city on the mountain called Malaya (Garlanded Mountain) grow the six superlative medicines [nutmeg, clove, cardamom, saffron, bamboo pith, and cubeb]. All diseases are healed by the five kinds of calcite, the

[6] *Terminalia chebula* does not grow at high elevations and is native to southern and southeastern Asia. Most of the ***a ru ra*** used in Rgyalthang comes either from India or from southern Yunnan.

> five kinds of mineral exudates, the five kinds of medicinal water and the five kinds of hot spring which are found on this mountain. (Clark 1995: 24)

Tellingly, the first book of the ***Rgyud bzhi*** is called the Root Tantra (***rtsa rgyud***). The eight divisions of medicine are known as branches (***yan lag***). Perhaps due to the close (although certainly not exclusive) association between Tibetan medicine and Tibetan Buddhism, which theoretically prohibits the taking of any sentient life, there has developed a symbolic dominance of plants (plants are generally not viewed as sentient in Tibetan Buddhism). For all of these reasons, and undoubtedly others, plants are symbolically privileged in Tibetan medicine.

Yet there are important cognitive and linguistic difficulties in using the modern, English term "plant" as a starting point. The central problem is a linguistic one. In spoken Tibetan, there is no over-arching term for plant that includes both "woody" and "herbaceous" plants. If one uses ***shing*** then the plant in question has some type of woody morphology, but is usually not herbaceous.[7] Conversely, the terms ***sngo*** or ***sngo ldum*** tend to connote herbaceous plants, without woody morphology, although in Rgyalthang Tibetan these latter terms were used more often as the general term "plant" than any other.[8] While ***rtsi shing*** seems to be a neologism used in the field of biology (and in several contemporary medical texts) to stand for generalized "plant" or flora, the use of this term does not appear to be all that prevalent in spoken Tibetan, at least not in the Rgyalthang dialect. The use of ***rtsi shing*** for "plant" is further complicated in the medical

[7] This designation of ***shing*** for woody plants only may be a relatively new occurrence.
[8] There may be a parallel here with the common English term "plant" in that a plant can be either 1) an organism that generally makes its own food by photosynthesis (tree, shrub, herb, etc) or 2) an herbaceous, soft-stemmed vegetative organism (as opposed to a tree).

tradition by a category of medicine of the same name (***rtsi shing sman***) which includes both vegetative and non-vegetative materials; I will return to this point below.

Interestingly, some of the difficulty of linguistic "equivalents" (finding an exact match in Rgyalthang Tibetan for the general English term "plant") was circumvented by the use of Chinese 植物 *zhiwu* (also apparently a modern term, derived from Japanese) which translates quite effectively as generalized "plant," or flora, regardless of woody or herbaceous morphology. This is an important point that may reflect the status of Chinese as the dominant language of science in the PRC. Primary and secondary school instruction in the natural sciences throughout China is in Mandarin. Since many Rgyalthang Tibetans are bilingual in speech, and most of the younger Tibetan doctors are confidently bilingual in both reading and writing, Tibetans themselves (that is, outside of the context of my conversations with them) may use Mandarin *zhiwu* as the more generalized term "plant" than the Tibetan neologism ***rtsi shing***, or even the local term ***sngo ldum***. I certainly found this to be the case in my interactions with doctors and common householders throughout Rgyalthang although admittedly my view may be problematic since I mainly used Chinese as a form of communication.

After returning from the field and reflecting on these questions of linguistic equivalents, I wrote to Ma Liming and asked him about this use of ***rtsi shing*** and whether it was equivalent to Mandarin *zhiwu*. He wrote back a fairly detailed letter stating first that the literary Tibetan (藏语书面上 *Zangyu shu mian shang*) equivalent for *zhiwu* is ***skye dngos*** ("things that grow") and second, that although *zhiwu* is sometimes translated as ***rtsi shing*** by some Tibetan doctors and in some books, he sees this as incorrect (我认

为是错误的 *wo renwei shi cuowu de*), because of the fact that it confuses the distinction in Tibetan medicine between the two categories ***rtsi sman*** ("exudents") and ***shing sman*** ("woody plants"). This was the first time I had even seen the term ***skye dngos***, it had never surfaced in my interactions (spoken or written) with Ma Liming or other doctors and I cannot locate it in the medical texts discussed in this dissertation or any others to which I have access. In short, I have not been able to discern from where this term has entered Dr. Ma's vocabulary; from all indications it has not come from the medical canons. The definition given for ***skye dgnos*** in Goldstein's most recent dictionary is: "biology; living things, organic matter" (Goldstein 2001: 73). This term appears to be a neologism, as is ***rtsi shing***. The way in which Ma Liming is using ***skye dngos***, however, indicates that the more general denotation of "organic matter" is not what he means by ***skye dngos***, for two main reasons. First, Dr. Ma contrasts ***skye dngos*** with ***srog chags*** ("animals," equivalent to Mandarin 动物 *dongwu*, he notes); clearly from a biological perspective animals are a type of organic matter, thus ***skye dgnos*** cannot mean strictly "organic matter" in this case.[9] Secondly, the subtypes of ***skye dgnos*** as listed by Dr. Ma consist *mostly* of plants, but the example of animal medicine such as ***gla rtsi*** (deer musk) is given as well. Nonetheless, one would have to conclude that ***skye dngos*** for Dr. Ma

[9] Interestingly, the construction of the term ***skye dngos*** seems to be parallel to a term used in a modern medical text, the ***Shel gyi Me long*** (see below), for those groups (such as stones, earth, and salt) that constitute the category of "Treasures" (***gter dngos***). In both cases, the term ***dngos*** is used, which means real, true, in the sense of a material thing. The ***Shel gyi Me long*** uses the term ***rtsi shing***, however, not ***skye dgnos***.

means something more like "germinators" (one of the meanings of ***skye***)[10] to contrast with other "organic" lifeforms.[11]

Hence there are several modern Tibetan terms in current use that may be close equivalents to English "plant" (***rsti shing***, ***sngo ldum***, ***skye dngos***) but they are fuzzy concepts at best and little utilized by Tibetan doctors, who seem to privilege the use of the term ***sman*** (medicine) over all other possible terms. The use of ***sman*** indicates that plants are first and foremost conceptualized as medicine for Tibetan doctors. I will return to this point below. Beyond ***sman***, from my experience Chinese *zhiwu* is the least ambiguous and possibly more utilized term for "plant" currently in use, at least among Rgyalthang doctors. This may have important implications for the linguistic relativity hypothesis, as the more regular use of *zhiwu* may influence the way that Tibetan doctors (and more broadly the Tibetan-speaking population) conceptualize the natural world.

In terms of the medical canons, there is no over-arching term used that is equivalent—even in a fuzzy sense—to "plant." From a cross-cultural perspective, the lack of a linguistic equivalent to the modern English term "plant" is not uncommon; many ethnobiologists have encountered just such difficulties. In fact, Berlin acknowledges this as the first of his Principles of Nomenclature: "Intermediate taxa and the taxon marking 'plant' or 'animal' at the rank of kingdom are generally not named in systems of ethnobiological classification" (Berlin 1992: 27). Such un-named taxa, termed

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[10] Another central meaning for ***skye*** is to be born.

[11] Berlin references early findings by Conklin among the Hanunóo of a "linguistic circumlocution" with striking resemblance to this probable meaning of Tibetan ***skye dgnos***: "All living elements which are observed to grow upward but which lack the power of self-locomotion are grouped together as *ti (manga) tumbu'* 'those (elements) which germinate and grow in place'" (Conklin 1954: 91, cited in Berlin 1992: 191).

"covert categories," have been the topic of much debate in ethnobiology. Essentially the central question around which the discussion of covert categories revolves is whether something that is not labeled can actually exist in a cognitive sense. Supporters of the idea of covert categories argue that there are other factors besides nomenclature that indicate the conceptual existence of a category. For instance, Berlin (1992) argues that there are essentially three kinds of evidence in support of covert categories on the level of kingdom (plant or animal):

> The first [evidence] is the recognition and documentation of a diversified vocabulary that can be shown to be associated only with organisms of the plant and animal kingdoms, respectively, as defined in Western biological science [examples such as 'leaf,' 'root,' 'bark,' etc.]. The second is indirect linguistic and behavioral evidence of one kind or another indicating that native speakers recognize and systematically treat plants and animals as distinctive groups. The third kind of evidence is the presence of syntactic or morphological linguistic markers that obligatorily occur with the names of plants and animals (of any rank) and which unambiguously assign them to mutually exclusive semantic classes. (Berlin 1992: 190-1)

It is most probable that a covert category for plant exists in the medical canons, where none of the terms mentioned in the previous discussion are present. Following the argument summarized by Berlin, the first kind of evidence (specialized plant vocabulary) certainly exists in Tibetan. In addition, I submit that there is indirect linguistic and behavioral evidence that would seem to indicate a conceptual category of "plants": the symbolic privileging of plants in Tibetan medicine, discussed in the opening to this chapter, would be one such example, as might important information on harvesting and preparation techniques contained within the texts. (Berlin's third type of possible evidence, morphosyntatic markers, does not apply in the case of Tibetan language.) Nonetheless, although the present research relies upon an assumption that the concept of

'plant' does exists in Tibetan medicine (covert in medical canons, fuzzy in modern Tibetan), the difficulties just highlighted are important to keep in mind, especially as they indicate the extent to which Tibetan doctors mainly conceptualize plants as medicine (***sman***).

From a doctor's point of view

There are a number of ways of classifying plants in Tibetan medicine. This proved to be a point of confusion for me at the start of my fieldwork. I thought at first that perhaps I was not asking the right questions or that somehow I was not effectively communicating what it is I wanted to know, because I received multiple answers. After Xiang Rinpoche stated that there are many ways that a plant can be classified, I protested "But there must be *one main way*, right?" His eyes glowed a bit as he replied, "No, not really. Since one plant can be classified seven different ways, you cannot actually say that there is one primary way of classifying." It suddenly dawned on me that I was being much too simplistic in my thinking, wanting a simple explanation to a complex phenomenon. It was not a case of ineffective communication but rather of preconceived ideas interfering with comprehension; I did not expect there to be more than one way that Tibetan doctors classified plants.

Below I examine, first, answers that I received in interviews to my query about how plants are classified. As will be apparent, there are multiple possibilities, but not unlimited ones. Although doctors explain that there is more than one way of classifying plants, they are, for the most part, in general agreement as to what the various schemas

are. Most of these schemas, we will see, have textual precedent; this may account for the general consensus of schemas among doctors. Second, I explore results of pile sorting tasks that I asked the doctors to conduct (I asked them to sort names of plants into piles depending on which ones belonged together). While there is some variability in the results, there is also a dominant schema that emerges: classification according to disorder(s) treated.[12]

One of the challenges of this chapter is making sense of both the variability and the commonalities in classificatory schemas. Although classification according to disorder(s) was the most common schema of classifying plants in the pile-sorting task, it was not the only schema of classification that doctors recognized. As Pema Tenzin succinctly explained to me once, "How you classify a plant depends on the situation." Rather than simplifying the cognitive worlds of Tibetan doctors, I want to highlight the complexities and speculate as to which classifications are used in which situations. At the same time, it will become clear that the interconnectedness of these various schemas makes it difficult to overlook the centrality of classification according to disorder(s); many of these schemas are aiming at the same goal.

[12] A few doctors (one Rgyalthang doctor, one Dechen doctor) sorted according to recipes; plants that are mixed together to make a medicine were put into the same pile. This is an interesting revelation about the use of pile sorts among experts that regularly com*pile* the materials they are sorting. That is, although they are not using actual materials (prepared plant parts), there may be something about the physical action of putting name cards into piles, which is reminiscent of the familiar act of compounding medicines, which triggers this response. In the end, many of the piles were similar to the piles sorted according to disorder(s) treated, but the rationale behind the two types of sorting was different.

Interviews

When I asked Tibetan doctors in interviews how they classify plants, I received a number of different answers: according to 'taste' (***ro***), 'potency' (***nus*** or ***nus pa***), disorder(s) treated, part of the plant utilized as medicine, habitat (mostly in terms of elevation), physical characteristics,[13] or broadly into two groups of plants with heating properties and those with cooling properties. The pace at which I received these replies to my query was never rushed. One doctor would seldom reveal all of these possibilities at once. If a doctor explained that there are many different ways to classify plants (not being specific at first), he would often begin by saying that the classic medical text the ***Rgyud bzhi*** set a standard by classifying all materia medica into basic categories, which he would recite or list for me. This was a frequent response that in part alerted me to the important role of texts in the professional lives of Tibetan doctors. "If one wants to speak very generally," Dr. Ma once said, "one could simply classify plants as those with heating properties and those with cooling properties." This was another common response, shared by nearly all of the doctors I interviewed. Interestingly, although classification according to the disorder(s) treated was the most common result of the pile sorting tasks, it was not articulated by every doctor in initial interviews. Other answers (according to taste, potency, part of the plant utilized, and habitat) were ones that were initially given by at

[13] I use "physical characteristics" with some caution, as will become clear in the discussion below about 'nature/essence' and morphology. Doctors did not actually *name* this type of classification but would rather point to the fact that all materia medica were organized a certain way in the ***Rgyud bzhi*** and ***Baidur Sngon po***. They would tell me the names of the categories but not the name of this *type* of classification. In hindsight I wish now that I had engaged them more deeply in discussions of what the essence of this type of classification was and if they could actually attach some kind of label/name to it. Additionally, "physical characteristics" refers to more than just morphology, since the characteristic of exuding a sap or sticky substance is one such characteristic.

least two of the doctors; in later interviews other doctors concurred that these were acceptable, and even important, ways to classify plants. I review these various schemas in the section (below) on classification in medical texts since most of the doctors referred me to the texts (some even recited lines from the texts) to learn more about the different schemas. I have included direct information given to me by doctors in each sub-section.

One point that was often reiterated to me when approaching the topic of plants is how Tibetan medicine is dependent upon the compounding of plants (and often other ingredients). Although plants need to be considered individually to understand the various characteristics of heating or cooling, taste, aftertaste, potency, etc., they are not as significant as stand-alone entities in terms of treatment. I examine this more closely in the section below where I analyze Dr. Ma's notes explaining the important considerations when mixing plants. This is yet another example of how plants are conceptualized by Tibetan doctors first and foremost as medicine, as substances that can effect a change on the human body.

Pile sorts[14]

In order to figure out which plants to use in pile sorts, I first asked Ma Liming, Pema Tenzin, Tsedrup Gonpo, Xiang Rinpoche, and Kelsang Chöden each to give me a list of the thirty most useful or important plants in their practices. Next, using mostly photos from the text ***Shel gyi Me long*** (discussed below), I confirmed with each respondent

[14] The pile sorts presented here were conducted with Rgyalthang doctors. Of the four Dechen doctors that conducted pile sorts, two sorted exclusively by habitat, one had mixed piles (some sorted by habitat, others by disorder(s) treated), and one doctor sorted first by recipe and then by habitat. I have a suspicion that our local translator, who worked for The Nature Conservancy, may have inadvertently influenced the doctors to think mainly about habitat when they were conducting the pile sorts. See Appendix C for more details.

which plants he was referring to; this was in order to eliminate any confusion as to the correspondence between plant species (i.e., Latin named categories) and plant name (i.e., Tibetan named categories), since often one name is used for several different species or sometimes one species has several different names. I then chose nineteen of these plants (those which were mentioned by four or all of the respondents) to constitute the list for pile sorts. (See Appendix D for photos.)

1. ***bya rgod spos*** (*Delphinium sp.*)
2. ***bong dkar*** (*Aconitum sp.*)
3. ***a ru ra*** (*Terminalia chebula*)
4. ***ba sha ka*** (*Corydalis sp.*)
5. ***star bu*** (*Hippophae rhamnoides*)
6. ***pri yang ku*** (*Dracocephalum tanguticum*)
7. ***hong len*** (*Lagotis sp.*)
8. ***'bri mog*** (*Onosma sp.*)
9. ***sum tig*** (*Saxifraga sp.*)
10. ***zangs tig*** (*Swertia sp.*)
11. ***ma nu*** (*Inula racemosa*)
12. ***ru rta*** (*Vladimiri sp.*)
13. ***utpala sngon po*** (*Meconopsis torquata*)
14. ***g.ya' kyi ma*** (*Chrysosplenium carnosum*)
15. ***lcags tig*** (*Halenia elliptica*)
16. ***nye shing*** (*Asparagus sp.*)
17. ***spang rtsi do bo*** (*Pterocephalus hookeri*)
18. ***ba ru ra*** (*Terminalia bellirica*)
19. ***skyu ru ra*** (*Phyllanthus emblica*)

For the actual sorting task, each respondent (with the exception of Xiang Rinpoche)[15] was asked to put names of plants (written on small pieces of paper) together in whatever manner they thought the plants should be grouped. I explained that names could be sorted

[15] Xiang Rinpoche was very accommodating in agreeing to multiple interviews in 1999, 2001 and early 2002, but by the time I had organized for pile sorts he had left the Zhongdian area and was on an extended retreat in his home area of Terma rong and unavailable for further consultation.

into multiple piles (I had extra blank slips of paper to fill out, if needed, as doubles) and that any number of pile sorts could be conducted. Following are the results.

Ma Liming's pile sorts

Ma Liming conducted a series of pile sorts; he was the only Rgyalthang doctor to conduct more than one sort. At first he thought the exercise was a bit strange and he looked at me quizzically when I asked him to sort these small pieces of paper into piles. The first pile sort he did was *mostly* according to which part of the plant is used for medicine, although one category (pile #5) is based on morphology. The result was five piles:

pile 1
a ru ra
skyu ru ra
ba ru ra
] fruit medicines (use fruit)

pile 2
ru rta
nye shing
ma nu
'bri mog
] root medicines (use roots)

pile 3
bya rgod spos
pri yang ku
sum tig
bong dkar
hong len
ba sha ka
g.ya' kyi ma
utpala sngon po
lcags tig
leaf medicines (use leaves)

pile 4
spang rtsi do bo
zangs tig
] flower medicines (use flowers)

pile 5
star bu
] tree medicine (it is a tree)

Dr. Ma's second pile sort was based on elevation at which the plants grow (he specified the numerical values for the elevations) and resulted in four piles. The first pile is also

arranged according to elevation, with ***hong len*** growing at the highest elevation, and ***g.ya kyi*** ma at the lowest of the 4000m + category:

pile 1		pile 2	
hong len	4000m +	***pri yang ku***	3000-4000m
utpala sngon po		***ba sha ka***	
bya rgod spos		***sum tig***	
bong dkar		***zangs tig***	
g.ya' kyi ma		***lcag tig***	

pile 3		pile 4	
'bri mog	1000-3000m	***skyu ru ra***	500-1000m
nye shing		***a ru ra***	
ma nu		***ba ru ra***	
star bu			
ru rta			
spang rtsi do bo			

The last pile sort that Dr. Ma did resulted in five piles grouped according to the disorders that the plants treat:

pile 1		pile 2	
pri yang ku	blood medicines (treat blood disorders)	***zangs tig***	***mkhris pa*** medicines (treat 'bile' disorders)
ba sha ka		***lcags tig***	
'bri mog		***sum tig***	
skyu ru ra		***g.ya' kyi ma***	
		utpala sngon po	
		hong len	
		spang rtsi do bo	

pile 3		pile 4	
bya rgod spos	pain medicines (treat pain)	***a ru ra***	***mkhris-rlung-bad*** medicines (treat 'bile,' 'wind,' and 'phlegm' disorders)
bong dkar		***ba ru ra***	

pile 5	
star bu	poison medicine (treats poisoning)

Pema Tenzin's pile sorts

This activity took place in Pema Tenzin's private clinic one afternoon. He was an incredibly busy doctor, treating somewhere between 10-30 patients a day. Pema Tenzin did only one pile sort, which resulted in plants being sorted according to the disorder(s) they treat. It should be noted that he did not use all 19 plants in this pile sort. In total he had four piles:

pile 1 ***star bu*** ***'bri mog*** ***ba sha ka***	blood medicines (treat blood disorders)	pile 2 ***bong dkar*** ***g.ya' kyi ma*** ***sum tig*** ***lcags tig***	***mkhris pa*** medicines (treat 'bile' disorders)
pile 3 ***a ru ra*** ***ba ru ra***	treat many disorders	pile 4 ***nye shing***	treats *fengshi/**drod nad*** (rheumatism/arthritis)

Kelsang Chöden's pile sorts

Kelsang Chöden came to my apartment one morning to conduct the pile sorts. He brought his book with him, *Karma Chophel's Collected Works* (***Karma Chos 'phel gyi rtsom sgrig byas***), since he felt unsure of himself, he told me. He spent an enormous amount of time doing these sorts (maybe close to two hours), looking up recipes and adding in names of other plants (not listed here) to make recipes complete. We sipped tea and ate some baked goods I had made. My son August was there and a casual feeling filled the air. The result was very detailed descriptions about the piles. Mainly they are sorted according to recipe (names of prepared medicine are given in italics) with added information regarding which disorders they treat. Notice how Kelsang Chöden was the

only respondent to use plant names more than once. He sorted the material into eleven piles:

pile 1
hong len
sum tig
a ru ra
ba ru ra
skyu ru ra
spang rtsi do bo
→ used to make ***Hong len brgyad pa***; treats heart heat (***snying tshad***) and are all cooling plants

pile 2
ma nu
→ used to make ***Ma nu bzhi thang***; treats joint pain, chills, fever

pile 3
utpala sngon po
star bu
skyu ru ra
→ used to make ***Utpala brgyad pa***; treats blood in stomach

pile 4
ru rta
ba sha ka
skyu ru ra
a ru ra
→ used to make ***Ru rta bcu pa***; treats pain like being hit by a bull

pile 5
bya rgod spos
pri yang ku
a ru ra
→ no name for this type of medicine; treats ***mkhris pa*** & blood disorders, other types of heat disorders

pile 6
'bri mog
→ used to make ***Dmar gsum sman mar***; treats long-term lung disorders

pile 7
bong dkar
a ru ra
pri yang ku
→ used to make ***Bong dkar bcu gsum***; treats shortness of breath, coughing, high fever

pile 8
lcags tig
ba sha ka
bong dkar
→ used to make ***Tig ta lnga thang***; treats headache, fever, blood & ***mkhris pa*** disorders

pile 9
nye shing ⌐ used by itself; treats discomfort in ligaments

pile 10
zangs tig ⌐ used by itself; treats ***mkhris pa*** heat and ***rlung*** heat

pile 11
g.ya' kyi ma ⌐ (residual) not in the book, not familiar with this plant

Tsedrup Gonpo's pile sorts

This took place in the Tibetan medicine clinic (Tsedrup Gonpo's office) of the County Hospital. Tsedrup Gonpo was as stern as ever. The result was six piles, all according to the disorders being treated:

pile 1
g.ya' kyi ma
lcags tig
sum tig
zangs tig
⌋ ***mkhris pa*** medicines (treat 'bile' disorders)

pile 2
spang rtsi do bo
ma nu
pri yang ku
utpala sngon po
⌋ ***bad kan*** medicines (treat 'phlegm' disorders)

pile 3
hong len
ba sha ka
'bri mog
ru rta
⌋ blood medicines (treat blood disorders)

pile 4
a ru ra
skyu ru ra
ba ru ra
⌋ ***rlung*** medicines (treat 'wind' disorders)

pile 5
bong dkar
nye shing
bya rgod spos
⌋ heat medicines (treat heat disorders)

pile 6
star bu ⌐ women's medicine (treats 'women's' disorders, mostly pain after childbirth)

Discussion of pile sorts

As can be seen, there is some variety in the results of these pile sorts even though the most common way of sorting is based on the disorders for which the plants are used.

First, let us examine the variations, which can be explained in terms of the life experiences, age, and primary specializations of each respondent.

Ma Liming, you may recall (see Chapter Three), is in charge of the manufacturing/compounding of medicines at the Prefectural Tibetan Hospital in Zhongdian. He participates in the annual gathering expeditions to collect medicinal plants (except in 2002). It is no surprise, therefore, that his pile sorts reflect this specialization as a pharmacologist and the duties associated with it: knowing which parts of the plants to utilize for medicine and knowing the elevations at which the plants grow. Ultimately, of course, plants are mixed for the purpose of treating disorders (I examine this more closely below) so this was also the basis for one of his series of pile sorts, although it should be noted that this was not the *first* way he sorted.

Kelsang Chöden, as an employee of the Chamdo Medicine Factory, clearly spends much of his time compounding medicines. As a young novice in the field, he is incredibly conscientious about detail and precision, which accounts for his extreme care and caution in writing out full recipes, giving names of recipes, and describing all of the disorders treated (with the aid of a book).

Both Pema Tenzin and Tsedrup Gonpo are older, well-established doctors that spend most of their time in interaction with patients. Although Pema Tenzin used to compound medicines at the Prefectural Hospital and has again begun mixing some medicines himself at his private clinic, both he and Tsedrup Gonpo are of a generation where compounding and treating patients went hand-in-hand—there was no division of labor as exists currently (see Chapter Three). Neither of these doctors participates in

extensive collecting of plants any longer and in their older years they prefer to spend more time with patients, they explained.

Three of the four doctors constructed pile sorts based on the disorder(s) that the plants treat. This criterion was also articulated as an important one in interviews with these same doctors (that is, where they were simply asked how plants are classified in Tibetan medicine but were not given particular tasks to do): three of the total five (this includes Xiang Rinpoche) explicitly mentioned in initial interviews that plants can be classified according to the disorders that they treat. Thus it would appear that this type of classification carries a fair amount of importance, as will become apparent by the end of this chapter.

One may note that while sorting according to disorders might be the most common way that doctors grouped the plants, not all doctors came up with the same groupings. For example, ***star bu*** was sorted into a pile of "treats poisoning" by Ma Liming, "treats blood disorders" by Pema Tenzin, and "treats 'women's' disorders" by Tsedrup Gonpo. In fact, it appears that there is more variation than there is agreement in actual uses (see Table 5.1). This may be explained by three important facts: 1) plants have multiple medicinal uses, they seldom treat only one disorder (although doctors were told they could use plant names more than once they seldom did), 2) plants are generally mixed with other ingredients into compounded medicines and thus healing effects depend in part, although not entirely, on interaction with other ingredients, and 3) there may be some overlap in the symptoms to which the names of disorders refer (so that, for instance, the type of poisoning that ***star bu*** treats may be blood poisoning, and the types

of "women's disorders" that ***star bu*** treats may be related to blood dysfunction).[16] In addition, it is possible that given the circumstances under which these pile sorts were done (rather spontaneously), doctors may have mistakenly remembered which plants treat which disorders. "Accuracy" was not an overriding concern for me in these tasks although at least one doctor, Pema Tenzin, was worried that he might not give me correct information without texts (see below) and Kelsang Chöden said the only way he could even attempt the pile sorts was with a book in hand.

Pile sorts are interesting in what they reveal about prominent cognitive schema and have been used in the field of ethnobiology (and cognitive anthropology more generally) for decades.[17] Indeed because of the dominance of classification according to disorder(s) treated, as revealed in the pile sorts by Rgyalthang doctors, Chapter Seven discusses the connection between plants and disorders. But there is more to the cognitive landscape of Tibetan doctors than can be discovered by pile sorts alone. As mentioned previously, Tibetan doctors readily explain that there are a number of ways to classify

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[16] I have not been able to confirm the plausibility of this last suggestion, even after sifting through all of the medical texts listed below; not enough specific detail is given in the texts for me to discern if there is any overlap in these disorders.

[17] I also tried another common method of inquiry used in cognitive anthropology: triads. This is when the names of three items (e.g., plants) are listed in a group and the respondent is asked to decide which of the three is the most different from the other two. A series of groups is randomly generated (by computer); answers are entered into a computational system and a resulting analysis is produced that indicates axes of similarity between the items compared. I found that the use of triads was for the most part a dismal failure in my research, mostly because doctors found them nonsensical. They would repeatedly complain that the task was too simplistic, that there are too many ways in which one can judge how plants are and are not alike and it was ridiculous to narrow the difference down to one quality per group. Sometimes the doctors would attempt the triads but often they would skip numerous groupings (nearly half in some instances) saying it was too difficult to decide in those cases. (One Dechen doctor complained that the triad task was like a "bad test" one had to take in school!) In the end the "data" I collected were too incomplete. As far as I could tell, however, doctors would use the same criteria of groupings as those that were verbalized to me in interviews (taste, heating/cooling properties, habitat, disorder(s) treated, physical characteristics, potency, and part of plant used).

Table 5.1 Comparison of plant classifications by pile sorts, Rgyalthang doctors

plant name	Ma Liming	Pema Tenzin	Kelsang Choden	Tsedrup Gonpo
bya rgod spos	treats pain (***gzer sman***); use leaves (***lo ma'i sman***); grows at high elevation		(no name for this type of medicine) treats ***mkhris pa*** and blood disorders, fever from poisoning and heat disorders	treats heat disorders (***tsha ba sman***)
bong dkar	treats pain (***gzer sman***); use leaves (***lo ma'i sman***); grows at high elevation	treats ***mkhris pa*** disorders	used to make ***tig ta lnga thang***; treats headache, yellow white of eyes, dry mouth, fever, blood & ***mkhris pa*** disorders	treats heat disorders (***tsha ba sman***)
a ru ra	alleviates ***mkhris pa***, ***rlung***, and ***bad kan*** disorders; use fruit (***'bras bu sman***); grows at low elevation	used very frequently	used to make a number of different medicines; used for heart heat (***snying tshad***), pain, ***mkhris pa,*** blood disorders, coughing, etc.	treats ***rlung*** disorders (***rlung sman***)
ba sha ka	treats blood disorders (***khrag sman***); use leaves (***lo ma'i sman***); grows at upper-middle elevation	treats blood disorders	used to make ***ru rta bcu pa***; treats pain like being hit by a bull (***gnyan***); also used to make ***tig ta lnga thang***; treats headache, ***mkhris pa*** and blood disorders	treats blood disorders (***khrag sman***)
star bu	cures poisoning (***dug sman***); it is a tree (***shing sman***); grows at lower-middle elevation	treats blood disorders	used to make ***utpala brgyad pa***; treats condition of blood in liver being pushed to stomach	treats 'women's' disorders, esp. pain after childbirth (***mo sman***)
pri yang ku (alternate spelling: ***bri yang ku***)	treats blood disorders (***khrag sman***); use leaves (***lo ma'i sman***); grows at upper-middle elevation		(no name for this type of medicine) treats ***mkhris pa*** and blood disorders, fever from poisoning and heat disorders; also used to make ***bong dkar bcu gsum***; treats shortness of breath, excessive coughing, high fever	treats ***bad kan*** disorders (***bad kan sman***)

Table 5.1 (continued)

hong len	treats ***mkhris pa*** disorders (***mkhris pa sman***); use leaves (***lo ma'i sman***); grows at high elevation		used to make ***hong len brgyad pa***; used for heart heat, cooling plant	treats blood disorders (***khrag sman***)
'bri mog	blood medicine (***khrag sman***); use roots (***rtsa ba'i sman***); grows at lower-middle elevation	treats blood disorders (***khrag sman***)	used to make ***dmar gsum sman mar***; treats lung cancer, lungs w/ yellow pus, other lung disorders	treats blood disorders (***khrag sman***)
sum tig	treats ***mkhris pa*** disorders (***mkhris pa sman***); use leaves (***lo ma'i sman***); grows at upper-middle elevation	treats ***mkhris pa*** disorders (***mkhris pa sman***)	used to make ***hong len brgyad pa***; used for heart heat, cooling plant	treats ***mkhris pa*** disorders (***mkhris pa sman***)
zangs tig	treats ***mkhris pa*** disorders (***mkhris pa sman***); use flowers (***me tog gi sman***); grows at upper-middle elevation		used by itself [not sure what for]	treats ***mkhris pa*** disorders (***mkhris pa sman***)
ma nu	use roots (***rtsa ba'i sman***); grows at lower-middle elevation		used to make ***ma nu bzhi thang***; treats pain in joints (not nec. rheumatism), chills, fever where heat is inside	treats ***bad kan*** disorders (***bad kan sman***)
ru rta	use roots (***rtsa ba'i sman***); grows at lower-middle elevation		used to make ***ru rta bcu pa***; treats pain like being hit by a bull	treats blood disorders (***khrag sman***)
utpala sngon po	treats ***mkhris pa*** disorders (***mkhris pa sman***); use leaves (***lo ma'i sman***); grows at high elevation		used to make ***utpala brgyad pa***; treats condition where blood in liver is pushed into stomach	treats ***bad kan*** disorders (***bad kan sman***)

Table 5.1 (continued)

g.ya' kyi ma	treats ***mkhris pa*** disorders (***mkhris pa sman***); use leaves (***lo ma'i sman***); grows at high elevation	treats ***mkhris pa*** disorders (***mkhris pa sman***)	[not in book, did not know usage]	treats ***mkhris pa*** disorders (***mkhris pa sman***)
lcags tig	treats ***mkhris pa*** disorders (***mkhris pa sman***); use leaves (***lo ma'i sman***); grows at upper-middle elevation	treats ***mkhris pa*** disorders (***mkhris pa sman***)	used to make ***tig ta lnga thang***; treats headache, yellow white of eyes, dry mouth, fever, blood & ***mkhris pa*** disorders	treats ***mkhris pa*** disorders (***mkhris pa sman***)
nye shing	use roots (***rtsa ba'i sman***); grows at lower-middle elevation	treats *fengshi* (***drod nad sman***)	used by itself; treats pain and discomfort in ligaments, joints	treats heat disorders (***tsha ba sman***)
spang rtsi do bo	treats ***mkhris pa*** disorders (***mkhris pa sman***); use flowers (***me tog gyi sman***); grows at lower-middle elevation		used to make ***hong len brgyad pa***; used for heart heat; cooling plant	treats ***bad kan*** disorders (***bad kan sman***)
ba ru ra	treats ***mkhris pa***, ***rlung***, and ***bad kan*** disorders (***mkhris-rlung-bad sman***; use fruit (***'bras bu sman***); grows at low elevation	used very frequently	used to make ***hong len brgyad pa***; used for heart heat; cooling plant	treats ***rlung*** disorders (***rlung sman***)
skyu ru ra	blood medicine (***khrag sman***); use fruit (***'bras bu sman***); grows at low elevation		used to make ***hong len brgyad pa***; used for heart heat; cooling plant; also used to make ***utpala bryad pa***; treats condition of blood from liver being pushed into stomach; also used to make ***ru rta bcu pa***; treats pain like being hit by a bull	treats ***rlung*** disorders (***rlung sman***)

plants. Many of these schemas come directly from the medical canons and thus I now turn to an examination of the relevant sections of these texts.

Classification according to texts

Canonical authority is important to classically trained Tibetan doctors. I found that both young and old doctors were often hesitant to state something with utmost certainly without consulting a text as final arbiter. The first time I asked Ma Liming to list the thirty most important plants in Tibetan medicine, he reached for a book. When I asked Pema Tenzin to do sorting tasks he insisted that we refer to texts to make sure he was giving me correct information on healing properties of the plants. Indeed, when I explained my interest in classification, doctors would ask if I knew the crucial texts that are examined below. In the doctor's office, texts are always close at hand. In part this surely must be due to the extreme challenge of committing to memory all the information contained within a text. But additionally, texts are invested with wisdom and are not merely repositories of knowledge. Kelsang Chöden explained: "Medical texts to me are direct connections to ancestors who discovered all of this incredible knowledge about medicines and recorded it for future generations." Doctors have a reverence for texts that is undoubtedly linked to the authoritative position that the written word has had in Tibetan cultural life for centuries.

Taking this reverence for texts seriously, I will spend time here examining the various schemas of classification that exist in Tibetan medical texts. As encouraged by the Tibetan doctors themselves, an analysis of any aspect of Tibetan medicine cannot be

complete without serious study of texts. In particular, texts have established precedent, especially in something like classification; such precedent Tibetan doctors acknowledge as a crucial aspect of the Tibetan medical system. As was explained to me, Tibetan medicine is not just a system of medicine, it is also a lineage of knowledge transmission.[18]

Recognized categories of plants, as presented in medical texts, have changed throughout the history of Tibetan medicine, however. There is not absolute concordance between various texts as to the exact number and kind of plant categories or to which category a particular plant should be assigned. In this discussion, I will examine plant classifications in six central texts, the first four of which seem to have the most influence in doctors' classificatory schemas of plants and which surfaced the most in my conversations with doctors:

Rgyud bzhi (*The Four Tantras*), 8th C
Baidur Sngon po (*The Blue Beryl*), 17th C
Shel Gong 'Phreng (*Crystal Garland of Medicine*), 18th C (or early 19th C)
Shel gyi Me long (*The Crystal Mirror*), 20th C (1995)
迪庆藏药 *Diqing Zang yao* (*Tibetan Medicine of Diqing*), Vols 1 & 2, 20th C (1987, 1989)
藏药志 *Zang yao zhi* (*Compendium of Tibetan Medicine*), 20th C (1996)

Classification of materia medica

Before looking specifically at the classifications of plants in these texts, I will begin with an overview of the general classification of materia medica—that is, all materials that are used medicinally in the Tibetan medical system—in three of these texts. I do this for

[18] This description of medicine as a lineage of knowledge transmission is very similar to the conceptualization of the teaching of Buddhism in Tibet.

three reasons. First, as previously mentioned, doctors will quite often begin an explanation of plant classification by enumerating all of the categories of materia medica, not just plants. Because Tibetan doctors primarily conceive of plants as medicine, their orientation is plants in context with, not in segregation from, other medicinal ingredients. Second, classifications in contemporary texts of Tibetan medicine that are used by Rgyalthang doctors are always of the full materia medica. That is, plant-only classifications are not part of the textual repertoire of these doctors. Third, in examining classifications of all materia medica, I want to highlight important overall changes in classificatory schema—changes that are not just limited to plants. This includes changes in hierarchical structuring as well as foundational characteristics that determine categorical membership. These changes have important ramifications for the ways that contemporary doctors conceptualize categories, as I examine below.

A word of caution on translation of materia medica categories

As discussed in Chapter Four, translatability, where possible, is seldom a matter of simple conversion. An important point of the present chapter is to problematize what the various groupings of materia medica, and 'plants' in particular, signify. While the *names* of most of the categories of materia medica have remained constant throughout time, what they *signify*, point to—in short, what they denote—has not. In other words, there has been a slight slippage in the link between signifier and signified (de Sausurre1959). Such a slippage is difficult to capture using contemporary translations (from Tibetan to English) for categories of materia medica. For this reason, I have been hesitant to put English translations next to Tibetan names of categories. But rather than forego any kind

of translation at all (which would be a bit unfair to readers), I have indicated various possible glosses, by myself and other scholars, of categories.

Tibetan texts

Rgyud bzhi (*The Four Tantras*)

A compilation of four books, the ***Rgyud bzhi*** is perhaps the most important historical canon of institutional Tibetan medicine. Its origin may date back to the 8th Century although most scholars agree that all four books were unlikely to have been written at the same time. Authorship is traditionally attributed to the Buddha himself but the physician Yuthog Yonten Gonpo, the younger (G.yu thog pa Yon tan mgon po gsar pa), an important 11th Century doctor of Tibetan medicine, probably had a substantial role at least in arranging, if not actually writing, parts of the work. The original core text around which the ***Rgyud bzhi*** is written was most likely Sanskrit and was translated into Tibetan in the 8th Century or earlier.[19]

Book II, the ***Bshad pa'i Rgyud*** (Explanatory Tantra), contains a total of 31 chapters. Three of these chapters (19-21) concern formulation of medicines, the various properties of medicines, and classification of materia medica:

> Chapter 19 Medicines: Taste and Post-digestive Taste (***Ro dang zhu rjes***)
> Chapter 20 Medicines: Efficacy (includes potency, strength, and attributes) (***Nus pa: nus, stobs, yon tan***)
> Chapter 21 Medicines: Compounding (***Sbyar thabs***)

[19] Finckh (1978), however, cites Unkrig's analysis that the ***Rgyud bzhi*** is actually of Tibetan origin, not translated from Sanskrit. Unkrig's analysis is largely based on the argument that if the ***Rgyud bzhi*** truly is of Sanskrit origin (and of such antiquity) it should have been incorporated into the important Buddhist canon the ***Bstan 'gyur***, which it was not. See Finckh (1978): 12-15.

In Chapter 20, in the section that discusses 'efficacy' (***nus pa***), materia medica are divided into eight categories based on 'nature, essence, or substance' (***ngo bo***); these categories are listed below. It is important to note the positioning of these classifications in the chapter on efficacy. 'Efficacy' refers to three aspects of a medicinal substance: 'potency' (***nus***), 'strength' (***stobs***), and 'attributes' (***yon tan***). The ***Rgyud bzhi*** states that the 'efficacy' (***nus pa***) of a medicine is in part dependent on its 'nature/essence' (***ngo bo***) as well as on its 'taste' (***ro***). Just what constitutes 'nature/essence' in the early texts is of course an important question, and one that is particularly difficult to answer definitively. Clearly there seems to be some relation between 'nature/essence' and physical characteristics; yet the relation is not always reliable, as we shall see (some tree-like plants are classified with herbaceous plants in the ***Rgyud bzhi***). Thus physical characteristics are a sufficient but not a necessary condition for classification according to nature/essence. Instead, nature/essence is more dependent on the composition of five elements (earth, water, fire, air, and space) in a substance, which in turn affect the efficacy of that substance (I discuss this further in Chapter Seven). Later books remove the direct link between classification of materia medica by nature/essence and efficacy; instead, materia medica become classified almost strictly by morphology while nature/essence (***ngo bo***) becomes an aspect of potency but not explicitly a quality by which materia medica are classified.

The eight categories of materia medica in the ***Rgyud bzhi*** are as follows:

1. ***Rin po che yi sman*** (Precious Medicine [metals & stones])
2. ***Sa sman*** (Earth Medicine)

3. ***Rdo'i sman*** (Stone [Metal & Mineral] Medicine)

4. ***Shing sman*** (Woody Plant Medicine; Tree Medicine; Dash (1995) translates this as Herbal Medicine); comes in 10 types (***bcu ru 'gyur***) [depending on which part of the plant is utilized]: roots (***rtsa ba***), trunk (***ldum bu***), stems (***sdong po***), branches (***yal ga***), pith (***rkang***), bark (***zhun pa***), exudates/gum (***thang chu***), leaves (***lo ma***), flowers (***me tog***) and fruit (***'bras bu***)

5. ***Rtsi sman*** (Exudant Medicine [materials that exude sticky substances or strong scents]): derived from roots, trees and animals (***rtsi sman rtsa shing srog chags las byung ba***)

6. ***Thang sman*** (Medicine from the Plains; Dawa (1999) translates as Medicine with Strong Roots; Dash (1995) translates as Decoction Medicine: made from the following five (***lnga ru 'gyur ba yin***): roots (***rtsa ba***), tender branches (***ngar pa***), leaves (***lo ma***), flowers (***me tog***), and fruit (***'bras bu)***

7. ***Sngo sman*** (Herbal Medicine; Dash (1995) translates this grouping as Salads and notes that these are plants used in green or raw form)

8. ***Srog chags sman*** (Animal Medicine)

The ***Rgyud bzhi*** does not give descriptions or definitions of each of these categories, although it does give examples. However, examples for categories four, five and six (***shing sman***, ***rtsi sman***, and ***thang sman***) are all listed together. *Why* they are listed together is not at all clear. Thus it is difficult to know which substances fall under which category. This appears to be one point that author Sangye Gyatso attempted to clarify in

the 17th Century ***Baidur Sngon po***, although some scholars have argued that he did not get it quite right.[20]

Worthy of note are Dash's glosses of some of these categories, particularly ***thang sman*** ('Decoctions')[21] and ***sngon sman*** ('Salads') (Dash 1995). What his translations suggest is that some of these classifications may be based on how the substance is to be processed, what the final form is that the medicinal substance will take. Or, if we consider the translation that I have preferred of ***thang sman*** as being 'Medicine from the Plains,' then where substances (plants) grow is an important distinguishing characteristic of this group. And yet other categories appear to be based more on what *kind* of substances the materials are (stone, earth, animal). Thus the categories of materia medica in the ***Rgyud bzhi*** may not necessarily be "equivalent" in that they are based on different principles of classification. This difference gets flattened out in later medical texts so that an attempt is made to equalize all categories.

Baidur Sngon po (*The Blue Beryl*)

Written in 1686 by the Fifth Dalai Lama's regent, Sangye Gyatso (Sangs rgyas Rgya mtsho) (1653-1705), the ***Baidur Sngon po*** is both an expansion of and a commentary on the ***Rgyud bzhi***. Having studied medicine himself, Sangye Gyatso is said to have taken

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[20] Critics point to the fact that only four examples are given for ***shing sman*** in the ***Baidur Sngon po*** but that ten possible types of ***shing sman*** are enumerated (both in the ***Rgyud bzhi*** and the ***Baidur Sngon po***). Therefore, the argument goes, logic dictates that there must be more than four examples in the combined grouping of ***shing***, ***rtsi***, and ***thang sman*** in the ***Rgyud bzhi***, since ten possibilities cannot be derived from four examples. See Clark: 139. Of course this is based on an assumption that *all possible materia medica* are listed in the ***Rgyud bzhi***—a fair but possibly inaccurate assumption.

[21] I have chosen to use the gloss 'Medicine from the Plains' for ***thang sman***, in large part because this is how Ma Liming explained this term to me. I will elaborate on his explanation below.

twenty years to complete writing the ***Baidur Sngon po***, collecting commentaries from elsewhere and consulting doctors and scholars where necessary to interpret some of the terse text in the ***Rgyud bzhi***. Accompanying this text are a series of 79 medical paintings (***thangkas***), which Sangye Gyatso commissioned, that were intended to be used as supplementary teaching aids.

In terms of classification, the ***Baidur Sngon po*** is nearly identical to the ***Rgyud bzhi***, with a few added grammatical function words to make the language more standard for the time of writing (17th Century). The list of categories of materia medica, based on nature/essence (***ngo bo***) is likewise positioned in the section on efficacy (***nus pa***) in Chapter 20. A new addition is author Sangye Gyatso's indication of how the compiled list of examples of ***shing sman***, ***rtsi sman***, and ***thang sman*** in the ***Rgyud bzhi*** divide up into each category. For example, he notes that the first four examples, ***ga bur*** (camphor, *Cinnamomum camphora*), ***tsan dan dkar po*** (white sandalwood, *Santalum album*), ***tsan dan dmar po*** (red sandalwood, *Pterocarpus santatum*), and ***a ga ru*** (agarwood, *Aquilaria agalocha*) are all ***shing sman***. He then continues to explain that the next ten ingredients are ***rtsi sman***, and the remaining sixty-six, by default, are ***thang sman***. Here I give the examples of ***shing sman*** to highlight the woody, tree-like quality of these materials (hopefully the reader will be familiar with these examples) and to suggest that it is not until the ***Baidur Sngon po*** that an *explicit association* is made between the category of ***shing sman*** and the morphology of a woody-stemmed, tree-like plant. The ***Rgyud bzhi*** is never explicit about this, which has lead some, such as Dash, to translate ***shing sman*** as general 'Herbal Medicine' since it is possible that other, non-woody ingredients belong to

this group. However, again it is important to reiterate that having tree-like qualities alone is not enough to qualify for membership in the category ***shing sman*** in the ***Baidur Sngon po***. Prototypical trees such as ***a ru ra*** (myrobalan, *Terminalia chebula*), and ***a 'bras*** (mango, *Mangifera indica*) are classified under ***thang sman*** in the ***Baidur Sngon po***, which may have more to do with how the substances from these trees are prepared (made into decoctions) or where these tree grow (on the plains) than the fact that they come from large, tall plants with woody trunks.

The eight categories of materia medica in the ***Baidur Sngon po*** are as follows:

1. ***Rin po che'i sman*** (Precious [Metal & Stone] Medicine)
2. ***Sa'i sman*** (Earth Medicine)
3. ***Rdo'i sman*** (Stone [Metal, and Mineral] Medicine)
4. ***Shing gi sman*** (Woody Plant Medicine; Tree Medicine[22]); [comes in 10 types depending on which part of the plant is utilized]: roots (***rtsa ba***), trunk (***ldum bu***), stems (***sdong po***), branches (***yal ga***), pith (***rkang***), bark (***zhun pa***), exudates/gum (***thang chu***), leaves (***lo ma***), flowers (***me tog***), fruit (***'bras bu***)
5. ***Rtsi'i sman*** (Exudant Medicine [materials that exude sticky substances or strong scents]); derived from: roots (***rtsa las byung ba***), trees (***shing las byung ba***), and animals (***srog chags las byung ba***)

[22] Here I do not add in Dash's translation of 'Herbal Medicine' since I am not sure he would use this terminology in the case of the ***Baidur Sngon po***, given what I have explained about Sangye Gyatso's formulation of what constitutes the category ***shing sman***.

6. ***Thang sman*** (Medicine from the Plains; Dawa (1999) translates as Medicine with Strong Roots; Dash (1995) translates as Decoction Medicine); made from the following five: roots (***rtsa ba***), stalk (***ngar ba***), leaves (***lo ma***), flowers (***me tog***), fruit (***'bras bu***)
7. ***Sngo sman*** (Herbal Medicine; Dash (1995) translates this grouping as Salads and notes that these are plants used in green or raw form)
8. ***Srog chags kyi sman*** (Animal Medicine)

Shel Gong 'Phreng (*The Crystal Garland of Medicine*)

Written by Geshe Tenzin Phuntsok (Bstan 'dzin phun tsogs) (b.1672) this text was written either in 1727 or 1737.[23] Tenzin Phutsok was a prolific writer, having authored over thirty works, the majority of which are medical texts. Finckh notes that his works are highly esteemed in part because they were printed at the Derge (Sde dge) Monastery where the block-prints "are considered to be particularly reliable" (Finckh 1978: 25). The ***Shel Gong 'Phreng*** text deals exclusively with materia medica.

An important aspect of this text is its arrangement into two parts, the first of which discusses 'efficacy' (***nus pa***) and the second of which lists thirteen categories of materia medica. This is quite different from the ***Rgyud bzhi*** and the ***Baidur Sngon po***, where categories of materia medica are listed *within* the context of efficacy. This I suggest is a ground-breaking move by author Tenzin Phuntsok, one which sets the stage

[23] Several Chinese sources (Wang 1994; as well as the copy I have of this text, published in Qinghai) state that it was written in 1835 with the first block print published in 1840. These sources may rely on an incorrect birth date for Tenzin Phuntsok, or these dates may simply reflect typographical errors. The Tibetan text ***Mi Sna*** (published in 1993 in Lhasa) gives 1725 as the year of Tenzin Phutsok's birth: another mistaken date.

for the predominance of physical characteristics in the classification of materia medica in later texts; no longer is nature/essence (***ngo bo***) the primary classificatory principle. The ***Shel Gong 'Phreng*** has also expanded the number of categories of materia medica from eight in the ***Rgyud bzhi*** and ***Baidur Sngon po*** to thirteen, to include "new" categories of Salt Medicine, Medicine from Crops/grains, Water Medicine, Fire Medicine, and Mixed Medicine.

The thirteen categories of materia medica in the ***Shel Gong 'Phreng*** are as follows:

1. ***Rin po che sman*** (Precious Medicine)
2. ***Rdo'i sman*** (Stone Medicine)
3. ***Sa'i sman*** (Earth Medicine)
4. ***Rtsi sman*** (Exudent Medicine) [5 types]: tree (***shing gi rtsi sman***), herbs1 (***ldum bu'i rtsi sman***), herbs2 (***sngo'i rtsi sman***),[24] animals (***srog chags gyi rtsi sman***), stones (***rdo'i rtsi sman***)
5. ***Shing sman*** (Woody Plant Medicine; Tree Medicine) [examples are discussed depending on which part of the plant is utilized/has efficacy (***nus pa***)]: fruit (***'bras bu***), flowers (***me tog***), leaves (***lo ma***), stem (***sdong bo***), branches (***yal***

[24] The difference between ***ldum bu*** and ***sngo*** is one that is nearly non-existent in contemporary Tibetan language—so much so that the two get combined into one term: ***sngo ldum***. Wang (1994) states that "***ldum bu*** are wet-grown grass while ***sngo*** are dry-grown grass" (192-3). A survey of the plants listed under each of these categories suggests that this may be an accurate distinction between the two (although 'plant' rather than 'grass' would be the more appropriate English gloss). Interestingly, I had never heard this distinction made by Tibetan doctors until I contacted Yonten Gyatso about it. He explained that ***ldum bu*** means the same as ***thang sman*** (medicine from the plains) and contrasts with ***sngo sman*** because the latter grow in higher areas.

phran), bark (***pags pa***), gum/sticky matter/ exudent (***tshi ba ste*** (***thang chu***))

6. ***Ldum bu 'am thang sman*** (Herbal or Medicine from the Plains)
7. ***Sngo sman*** (Herbal Medicine) [examples discussed depending on which part of the plant is utilized/has efficacy (***nus pa***)]: roots (***rtsa ba***), leaves (***lo ma***), flowers (***me tog***), fruit (***'bras bu***), leaves, stems, flowers, fruit gathered together as one (***lo sdong me 'bras lhan cig btu ba***), root, leaves, flowers, fruit gathered together (***rtsa lo me 'bras bcas yongs rdzogs btu ba***)
8. ***Lan tshwa'i sman*** (Salt Medicine)
9. ***Srog chags las byung ba'i sman*** (Medicine Derived from Animals)
10. ***Zhing gi lo thog las byung ba'i sman*** (Medicine from Crops/grains)
11. ***Chu'i sman*** (Water Medicine)
12. ***Me'i sman*** (Fire Medicine)
13. ***Gdus*** [sic] ***pa'i sman*** (Mixed Medicine)

The ***Shel Gong 'Phreng*** also lists three commonly used "vehicles" for medicine (***sman rta gsum***): molasses (***bu ram***), sugar (***ka ra***), and honey (***sbrang rtsi***).

Shel gyi Me Long (*The Crystal Mirror*)

This is a recently published volume having a name very similar to an historic work.[25] Written by Gawa'i Dorje (Dga' ba'i rdo rje), a renowned doctor of Tibetan medicine of

[25] Rechung Rinpoche (2001) states that the famous 8th Century physician Champashila (Bi byi in Tibetan) translated a text (I suspect from Sanskrit, although it is not stated so) titled ***Rgyud Shel gyi Me long***. I do not know the contents of this text, although Champashila supposedly added forty two chapters on anatomy to the existing fifty chapters of the original book; given this information, there does not appear to be a

Chamdo, it was published in Beijing in 1995. The text is in Tibetan but also contains Chinese names for most materia medica. Similar to the ***Shel Gong 'Phreng***, the ***Shel gyi Me long*** is largely concerned with descriptions of materia medica and contains nearly 900 color photos of most specimens discussed in the text.

The author divides materia medica into ten categories, which fall under three main divisions or 'kinds' (***rigs***):[26] Treasures [minerals, stones, salts], (Exudents &) Plants, and Animals. This is a new hierarchical ordering in Tibetan medical texts, one that seems particularly driven by a concerted effort to organize materia medica into orders familiar to the modern subject: minerals, plants, and animals. While one might argue that these divisions could have existed at the time of writing of the ***Rgyud bzhi*** (Tibetans may have acknowledged some important differences between a rock, a tree, and a person, for example),[27] they do not exist as overtly marked categories in the text. In addition, the elaborated section on "animals" seems especially in keeping with contemporary scientific interpretations of the divisions between mammals, birds, reptiles, and insects (although the latter two get classed together in the text), divisions that do not exist in the ***Rgyud bzhi***, ***Baidur Sngon po***, nor the ***Shel Gong 'Phreng***. This clearly

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strong resemblance with the contemporary ***Shel gyi Me long*** text. This recycling of names for texts is quite common in Tibetan medical literature and I suspect may be the case in other genres of Tibetan writing.

[26] The level of these divisions would equate probably more directly with English "kingdom" but I have chosen to retain the more literal meaning of the Tibetan term ***rigs***. ***Rigs*** is used in terms such as ***mi rigs*** (human kind, humanity; also used to translate Chinese 民族 *minzu*) where the meaning is clearly not as general as "kingdom."

[27] Interestingly, while I was interviewing a village doctor in the Dechen area, I found that the basic divisions I assume exist between a rock, a tree, and a person were not so basic to him. He had a very difficult time explaining if/how these three were different and seemed little impressed by my explanations based on sentience and biological functioning. There does seem to be evidence to suggest that a basic contrast between plants, animals, and people is commonly recognized cross-culturally, however, as pointed out to me by Gene Hunn.

reflects the influence of western science on traditional conceptualizations of natural kinds, an influence that has undoubtedly increased within the past several decades.

The hierarchical restructuring introduced by Gawa'i Dorje has the added effect, I suggest, of equalizing categories in a way that is nonexistent in earlier texts. Since 'kind' (***rigs***) becomes an organizing principle, categories of materia medica in the ***Shel gyi Me long*** are all based on "genetic" similarities of being constituted of the same material substance, regardless of considerations of preparation (as seems plausible for some categories in the ***Rgyud bzhi*** and ***Baidur Sngon po***). As with the ***Shel Gong 'Phreng***, the categories of materia medica in the ***Shel gyi Me long*** are not discussed in the context of efficacy. In fact, efficacy as a topic in its own right is not highlighted at all in this text.

The classifications of materia medica in the ***Shel gyi Me long*** are as follows:

A. ***Gter dngos kyi rigs*** (Treasures)

1. ***Rin po che'i sman*** (Precious Medicine)
2. ***Sa rdo'i sman*** (Earth & Stone Medicine)
3. ***Tshwa sna'i sman*** (Salt Medicine)

B. ***Rtsi shing gi rigs*** (Exudents & Woody Plants) OR (Plants [neologism])

4. ***Rtsi*** (Exudent Medicine)
5. ***Shing*** (Woody Medicine) 7 divisions (***sde***) [based on]: fruit (***'bras bu***), flowers (***me tog***), leaves (***lo ma***), trunk/stems (***sdong po***), small branches (***yal phran***), bark (***pags pa***), gum/sticky matter/ exudent (***tshi ba thang chu***)
6. ***Sngo ldum*** (Herbaceous Medicine)

7. ***'Bru'i*** (Grain Medicine)

C. ***Srog chags kyi rigs*** (Animals)

8. ***'O thung sde tshan*** (mammals)

9. ***Bya rigs sde tshan*** (birds)

10. ***Skam chu gnyis gnas dang 'bu srin gyi sde tshan*** (non-aquatic & aquatic worms and insects [includes reptiles, fish, and crustaceans])

One may note how several new categories appear, old ones drop out, and two categories merge in this text. Below I will discuss in more detail the eliding of the category ***thang sman*** (Medicine from the Plains) and the addition of the category ***'bru'i sman*** (Grain Medicine).

Chinese texts

迪庆藏药 *Diqing Zang Yao (Tibetan Medicine of Diqing)*

Published in Kunming in 1987 (Volume 1) and 1989 (Volume 2), this book was particularly difficult for me to obtain a copy of since it is out of print. (Dr. Ma finally was able to track down a set for me.)[28] It is written in Chinese with Tibetan plant names and illustrations. The book is specifically about flora and fauna in the Diqing Prefecture and was a collaborative effort between Yang Jingsheng (杨竟生), Director of the Yunnan Provincial Medicine Inspection Bureau (省药检所 *sheng yao cha suo*) and Byang Tsultrim Gyatso (Byang Tshul khrims rgya mtsho; known throughout this dissertation as

[28] To simplify, I refer to this set of two volumes in the singular ("book").

Xiang Rinpoche), the preeminent Buddhist scholar and previous doctor of Tibetan medicine in Rgyalthang.

Materia medica are arranged alphabetically (by Tibetan alphabet) and divided into six main categories. Of interest is the new category of "Spore-bearing Plant Medicine," one that seems especially influenced by modern science yet at the same time conflates two distinct scientific categories (fungi and ferns) into one.

1. Precious Stone and Gem Medicine (真贵宝石类矿物药 *zhengui baoshi lei kuangwu yao*)
2. Other Mineral Medicine (其他矿物药 *qita kuangwu yao*)
3. Animal Medicine (动物药 *dongwu yao*)
4. Spore-bearing Plant Medicine (孢子植物药 *baozi zhiwu yao*) [includes fungi and ferns]
5. Tree Medicine (木本种子植物药 *mu ben zhongzi zhiwu yao*: literally, "wood-based seed-bearing plants")
6. Herbal Medicine (草本种子植物药 *cao ben zhongzi zhiwu yao*: literally, "grass-based seed-bearing plants")

藏药志 *Zang Yao Zhi* (*Compendium of Tibetan Medicine*)

Although there is a Tibetan language version of this book, I was only able to obtain the Chinese one, which also has Tibetan plant names and illustrations. The book was published in 1996 by Qinghai People's Press and edited by staff at the Northwest Plateau

Biological Institute of the Chinese Academy of Sciences (中国科学西北高原生物研究所 *Zhongguo kexue xibei gaoyuan shengwu yanjiusuo*).

This text contains only three main divisions of materia medica, all of which are undoubtedly informed by modern science.

1. Plant Medicine (植物药类 *zhiwu yaolei*)

2. Animal Medicine (动物药类 *dongwu yaolei*)

3. Mineral (and other) Medicine (矿物及其他药类 kuangwu ji qita yaolei)

Summary of classification of materia medica

The most general characteristic of materia medica classifications in contemporary texts, both Chinese and Tibetan, is the influence of modern science. This is most apparent in the overall hierarchical structure, where life-form ("kingdom") categories recognized by modern science (plant, animal, mineral) are those with the highest levels of inclusion (see Figure 5.6). The influence of modern science also occurs in the elimination of efficacy as one of the important criteria by which materia medica are classified. One could thus summarize that modern texts are organized more like texts of science than those of medicine, as the earlier texts are. While certainly contemporary texts maintain important information of the medicinal uses and properties of plants, this information is no longer the central organizing principle of materia medica. I will return to this point below when I discuss what effects contemporary medical texts may have on the classificatory propensities of Rgyalthang doctors.

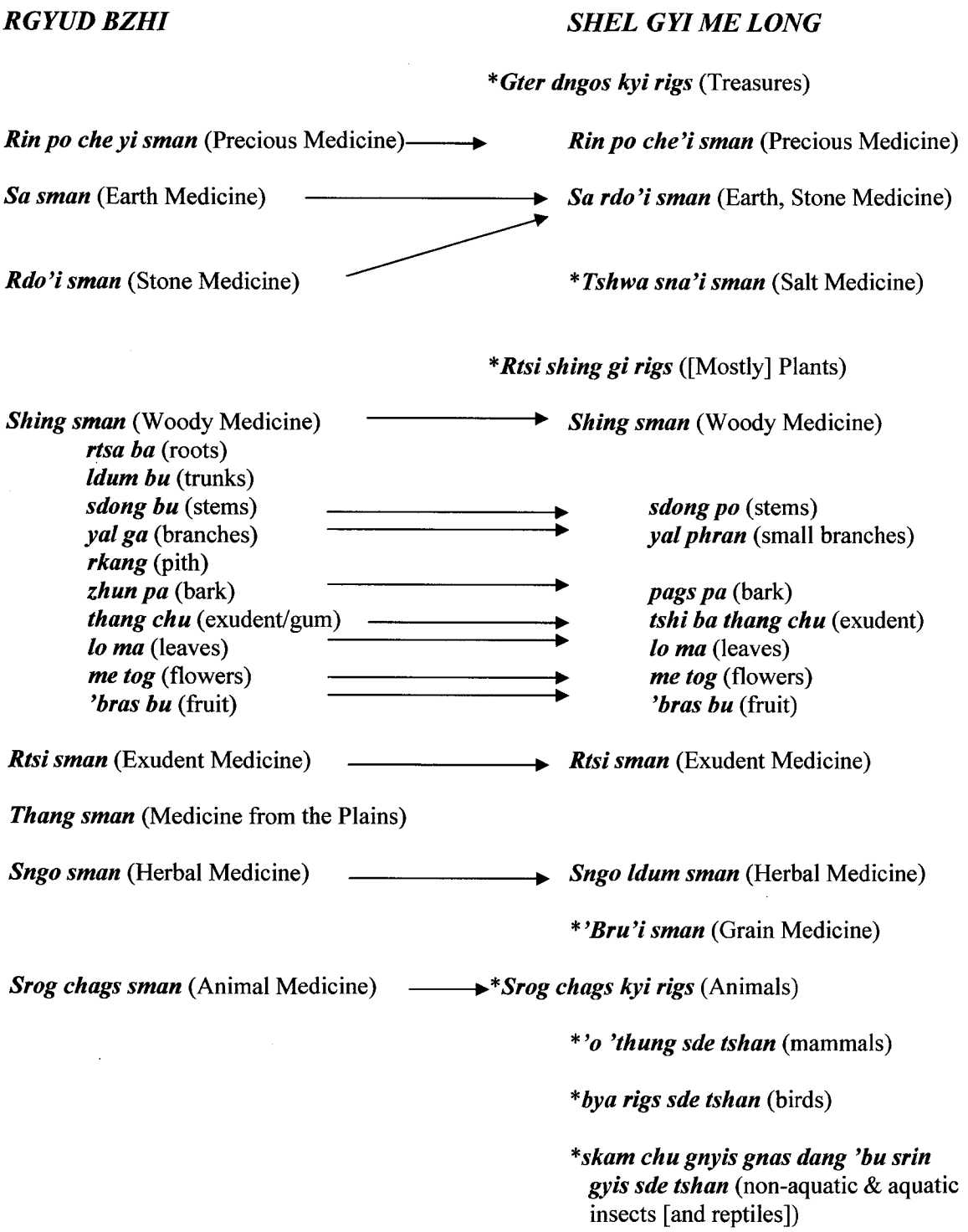

Figure 5.6 Diagram comparing categories of materia medica in *Rgyud bzhi* and *Shel gyi Me long*. *Indicates a 'new' category (appearing in *Shel gyi Me long* but not in *Rgyud bzhi*)

Classification of plants: comparison of Rgyud bzhi and Shel gyi Me long

In discussing plant classifications, the two texts that I will examine most closely are the historic medical text the ***Rgyud bzhi*** and the more recently published ***Shel gyi Me long***. While the ***Rgyud bzhi*** is memorized, at least in part, during a doctor's formal education, the ***Shel gyi Me long*** is used as a reference book, particularly for identification purposes while doctors are in the field collecting plants (see Figure 5.7).[29] Another important text

Figure 5.7 Pema Tenzin using the *Shel gyi Me long* for plant identification

in the study of classification is the ***Shel Gong 'Phreng***. Although this text does not appear to be extensively utilized by most doctors (this is not a text, for instance, which was readily at hand in doctors' offices or clinics nor did it seem that parts of it were committed to memory), it is studied during the course of a doctor's training. Dr. Ma

[29] Although Dr. Ma carefully stated once that all of the information contained within the ***Shel gyi Me long*** has to be memorized in medical school so doctors do not actually *need* the book, it is just sometimes *helpful* to have it around.

especially urged me to locate a copy to study since my primary interest was in plant classification.[30] In the present analysis the ***Shel Gong 'Phreng*** is useful because of its interpretive insight and as an important historical link between the ***Rgyud bzhi*** and the ***Shel gyi Me long***. Both *Diqing Zang yao* and *Zang yao zhi* use completely different classificatory systems than either the ***Rgyud bzhi***, ***Baidur Sngon po***, ***Shel Gong 'Phreng*** or ***Shel gyi Me long*** and I will discuss them only briefly. It is important to note that while these two Chinese-language texts were often referenced for various information (plant descriptions and locations, alternate names, for example), the classificatory schema contained within them did not appear to be utilized, at least not explicitly. There are five main points of difference between the classification of plants in the Rgyud bzhi and the ***Shel gyi Me long***, to which I now turn.

First, as related above, the ***Rgyud bzhi*** does not categorize 'plants' into any higher order, as the ***Shel gyi Me long*** does with the category ***rtsi shing gi rigs***. As previously explained, ***rtsi shing*** appears to be a neologism that can be glossed as the general term "plant." It appears this is the meaning of the term as used in the ***Shel gyi Me long***, given that three of the four categories within this order include plant-only material exclusively. And yet clearly the category of ***rtsi*** is one that includes non-plant materials and seems to based upon the characteristics of exuding a sticky substance; thus the order ***rtsi shing*** cannot be translated strictly as "plants" in the context of medical texts (and indeed in a local context, ***rtsi shing*** may not even mean the general term "plant" to most people in Rgyalthang). Recall also Ma Liming's reservations about using ***rtsi shing*** as an accurate

[30] Locating some of these texts in China was not easy. A friend of a friend finally found a copy of the ***Shel Gong 'Phreng*** in Lhasa and brought it back to Zhongdian for me.

translation of the modern Chinese term *zhiwu* ("plant"); in fact, he explicitly states that ***rtsi shing*** is an incorrect translation of *zhiwu*.[31]

Second, as also stated above, the ***Shel gyi Me long*** uses physical characteristics as the primary determining characteristic for plant classification, unlike the ***Rgyud bzhi*** which classifies according to nature/essence (***ngo bo***) as related to efficacy. Plants with especially "woody" stems (such as *Rhododendron sp.*, *Berberis sp.*, *Juniperus sp.*, *Rosa sp.*, *Myricaria sp.*) are categorized as ***shing sman*** (Woody Medicine) in the ***Shel gyi Me long*** rather than ***sngo sman*** (Herbal Medicine) as they are in the ***Rgyud bzhi***. ***Shug pa tsher can*** (*Juniperus sp.*) is a good example of this change. In the ***Rgyud bzhi***, ***shug pa tsher can*** is classified under the category ***sngo yi sman*** (Herbal Medicine); in the ***Shel gyi Me long*** the same plant is classified under ***shing sman*** (Woody Medicine). Assuming that the meaning of the categories ***shing*** and ***sngo*** has remained constant through time, and assuming that ***shug pa tsher can*** refers to more or less the same plant in the two texts,[32] it could be argued that ***shug pa tsher can*** is classified as ***sngo*** (herb) in the ***Rgyud***

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[31] The ambiguity about the boundaries of these categories might be usefully attended to by way of prototype theory; this states that category membership is often determined by reference to a prototypical member (the prototype), which is the most psychologically salient representative of the category. The famous example usually given is that a robin is a prototypical bird for most English-speaking Americans (its image is drawn upon first and foremost as representing the category "bird"). A penguin, on the other hand, is not a prototypical bird and generally is not immediately thought of as the most salient example of "bird" (see Rosch 1981; Lakoff 1973). Prototype theory relies on consensus (a survey of a community in the Amazon basin would reveal a different prototypical bird than a robin, for instance). The theory is also largely based on psychological analysis of reasoning and judgment. Because of its orientation in the latter, I find that it is difficult to successfully apply the concept of a prototype in the present analysis of plant classification in medical texts because I simply do not have the data to do so. It would be interesting, for instance, to examine what doctors consider the prototypical members of each of these categories presented in the various texts to be (rather than examining the examples—with no indication of which are prototypical—given in the texts). This brings up an important difficulty of an analysis that relies on textual information alone.

[32] This issue of plant identification is particularly difficult, especially in the ***Rgyud bzhi*** where little descriptive detail is given of plants. (This may have been one of the concerns of Sangye Gyatso, the author of the ***Baidur Sngon po***, when he commissioned the painting of the medical ***thangkas***, many of which have

bzhi according to its 'nature' whereas it is classified in the ***Shel gyi Me long*** according to having the morphological characteristic of being "woody" (***shing***). This re-classification of ***shug pa tsher can***, and indeed of other genera listed above, is existent in the ***Shel Gong 'Phreng*** and may have been initiated by author Tenzin Phuntsok himself. The significance of this is that contemporary doctors utilize the classifications of later texts; they consider ***shug pa tsher can*** a "woody" medicine, not an "herbal" one. So it appears that the importance of morphology as a determining characteristic in classification has had an effect on the classificatory schema used by contemporary Rgyalthang doctors.

Third, the category of ***thang sman*** disappears in the ***Shel gyi Me long***. The plants categorized as ***thang sman*** in earlier texts (***Rgyud bzhi***, ***Baidur Sngon po*** and the ***Shel Gong 'Phreng***) become classified in the ***Shel gyi Me long*** according to physical distinctions: those with woody stems get classified under Woody Medicine (***shing sman***) while those with herbaceous stems get classed under Herbal Medicine (***sngo ldum sman***). For example, ***star bu*** (sea buckthorn, *Hippophae rhamnoides*) is classified in earlier texts as ***thang sman*** whereas it is classified in the ***Shel gyi Me long*** as ***shing sman***.[33] ***Ma nu*** (*Inula racemosa*) is also classified as ***thang sman*** in earlier texts but then classified as ***sngo sman*** in the ***Shel gyi Me long***.

If we take Dash (1995) and Rechung Rinpoche's interpretations of ***thang sman*** as being 'Decoctions,' the omission of this category possibly signals that an earlier

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a fair amount of detail to aid identification.) While it is true that even contemporary doctors complain that one name may be used for two completely different plants, this appears to be the case among certain groups of plants, particularly herbaceous ones. Exact species identification of ***shug pa tsher can*** in the ***Rgyud bzhi*** may be impossible, but it is reasonable to assume that identification at the level of genus, *Juniperus*, is accurate.

[33] One will also note that Ma Liming classified ***star bu*** in one pile sort as ***shing sman***.

distinction in preparation becomes less important as a classificatory element. If we accept Dawa's (1999) interpretation of ***thang sman*** as being those plants with 'strong roots' we could perhaps surmise that the quality of roots has become less important in classifying schema. If Pasang Yonten, Ma Liming, and Yonten Gyatso are correct that ***thang sman*** means 'medicines from the plains' then perhaps where plants grow has less importance in current classifications. Whichever way we interpret the meaning of this category, the eliding of ***thang sman*** indicates that morphology becomes the overriding concept for classification in the ***Shel gyi Me long***. Rgyalthang doctors do not appear to use the category ***thang sman*** very much. Once in the field when I asked Dr. Ma about this category he said that ***thang sman*** is actually a sub-category of ***sngo sman***. Later, after my fieldwork was complete and I was closely examining the categories of text, I wrote to Ma Liming and asked about the meaning of ***thang sman***. He wrote back and explained that the Tibetan ***thang*** means "plains" and that the Chinese equivalent is 平坝上药 *pingba shang yao* (literally, "medicine on the plains"). In my letter I mentioned that I have seen other works that explain this category as being decoctions, and suggested that perhaps the ***thang*** is actually from Chinese 汤 *tang* ("soup"); he responded that this is incorrect. There is a difference, he noted, between ***thang sman*** and ***sman thang***, the latter term which means decoctions (Chinese 汤药 *tang yao*). Dr. Ma's interpretation is corroborated by Pasang Yonten's work as well as by Yonten Gyatso (personal communication) but is in contrast with that provided by Dash (1995) and Rechung Rinpoche (2001) and possibly Dawa (1999). It is highly possible that the eliding of the category ***thang sman*** in recent texts published in the PRC could be due to a desire to

eliminate interpretive variation and therefore promote a standardization that does not include this category.[34]

Fourth, the category of grain (***'bru***) gets transplanted from a category of foodstuff (***zas***) in the ***Rgyud bzhi*** (Chapter 15) to one of medicine (***sman***) in the ***Shel gyi Me long***, under the category ***rtsi shing rigs*** '(Exudents &) Plants.' In the ***Shel Gong 'Phreng***, grains are categorized under the class of 'Crop medicine from the fields' (***zhing gi lo thog las byung ba'i sman***) and this may have been the transitioning point were grains moved from being a type of foodstuff (crops) to being labeled a type of medicine (***sman***). Rgyalthang doctors readily admit that foodstuff has important medicinal properties and will prescribe eating or avoiding certain food as an important regimen of treatment, although foodstuff is not an ingredient in compounded medicines. Interestingly, I never heard doctors refer to such foodstuffs as medicines (***sman***) during the course of my fieldwork, yet in a recent letter from Dr. Ma, he indicates that crops (***lo thog***) are a type of 'plant medicine' (***skye dngos sman***). Thus it could be that grains are *logically* a type of medicine, but *semantically* they are thought more of as a type of food (see Chapter Four for an argument by Wierzbicka (1984) on this point).

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[34] I am inclined to think that this may be the case rather than the possibility that the eliding of ***thang sman*** has actually influenced the way that doctors think about the meaning of this category, for two reasons. First, the ***Shel gyi Me long*** is a very recent text, published in 1995; all of the doctors with whom I worked and whose glosses on the term ***thang sman*** I have referred to began their medical training before 1995. Thus this work itself is very unlikely to have influenced their thinking so profoundly in such a short period of time and not being available during the formative years of their medical training. Second, there does not appear to be a consistent difference between how this term is interpreted among doctors within the PRC and those in exile, as one would expect if there were to be a direct influence from this text (which is used in the PRC but not in exile). Of course the assumption with which I am working is that the eliding of this category did not exist in medical training before the publication of the ***Shel gyi Me long*** nor in recent publications (and training) in exile, which may prove to be incorrect.

Fifth, under the category of ***shing sman***, the ***Rgyud bzhi*** establishes ten morphological aspects of the plant to consider, while the ***Shel gyi Me long*** recognizes only seven. The aspects missing in the later text include roots (***rtsa ba***), trunks (***ldum bu***), and pith (***rkang***). Although I am not certain of this, I suspect that this is another signal that strict morphological considerations for classification as ***shing sman*** were not in place in the early texts. Although trees have roots, trunks, and pith, they are generally not utilized (in part due to difficulty in access) in the Tibetan medical system. Thus the fact that these parts are *included* in the category of ***shing sman*** in the ***Rgyud bzhi*** may signal that this category included members that were not woody-stemmed trees.

In summary, much of the reorganization in the ***Shel gyi Me long*** seems to be based on the principle of physical characteristics rather than that of nature/essence as in the ***Rgyud bzhi*** and ***Baidur Sngon po***. This is another example, I submit, of the influence of modern science on the classification of plants (and materia medica more generally). While physical characteristics may be a factor in a plant's nature/essence, it is not explained as such in the early medical texts; at least the particular nature/essence of a plant is not dependent upon physical characteristics alone. Nature/essence also depends on taste (***ro***), aftertaste (***zhu rjes***), and potency (***nus pa***). It is not so much that the ***Shel gyi Me long*** ignores the important characteristics of taste, aftertaste, and potency, but rather that *they are no longer organizing principles of classification* as they are in early texts.

What I hope to have highlighted with this discussion are the complexities of plant (and materia medica) classification through the course of Tibetan medical history,

beginning in the 8th Century. Nominally identical categories are not necessarily identical. Close scrutiny is crucial in understanding the evolution of categorical meaning since classifications are products of histories.

Texts and doctors in interaction

The first question to ask after such an involved analysis of classification of materia medica in medical history is: *What effect, if any, do these classifications have on the cognitive worlds of contemporary Tibetan doctors?* I have show that there are quite clear effects in terms of how particular plants get classified and have indicated that doctors tend to follow the classifications of the ***Shel gyi Me long*** in terms of highlighting physical characteristics as an important classificatory principle. Yet such effects are not hegemonic. In fact, it may be that the effects of privileging physical characteristics as an important principle of classification is in part mitigated by the other classificatory schemas that Tibetan doctors engage with. In this next section, I continue examining the various schemas of plant classification utilized by Rgyalthang doctors with particular reference to textual precedent. The first two of these schemas have fairly well established precedent, at least in early texts, while the last three schemas have more tenuous connections to medical texts.

Classifications of plants according to disorder(s) treated

The ***Rgyud bzhi*** and the ***Baidur Sngon po*** are the only texts that classify plants according to disorder(s) treated. Although other texts do include information on which disorders

plants treat, given along with information on taste, potency, physical description of the plant, its flowers, etc., none of them actually group plants by disorder(s) treated. This is quite a revelation given the predominance of this type of classification for Tibetan doctors in Rgyalthang. It seems to indicate that although doctors adhere somewhat to the classificatory schemas of newer texts (i.e., the importance of physical characteristics, as exemplified in the ***Shel gyi Me long***) they also utilize a system of classification that has not been modified for centuries.

Rgyud bzhi and ***Baidur Sngon po***

In Chapter 21 of both texts (Book II in the ***Rgyud bzhi***), while discussing the therapeutic use of medicine, medicines [including plants] can be grouped according to disorder(s) treated:[35]

Alleviates heat in the body (***tsha ba thun mong spyir 'joms sman***)
Alleviates ***mkhris pa*** (***mkhris pa sel ba***)
Cures blood-diseases (***khrag nad sel bar byed pa'i sman***)
Cures infectious diseases (***khrag rkang rims nad sel ba'i sman***)
Cures poision (***dug sman***)
Cures lung diseases (***glo sman***)
Alleviates ***rlung*** associated with fever (***rlung dang tshad par ldan pa'i sman***)
Alleviates aggravated ***bad kan*** associated with fever (***bad kan tsha ba sel ba'i sman***)
Alleviates ***bad-rlung*** (***bad rlung sel ba***)
Alleviates ***bad kan*** and cold (***bad kan grang ba sel ba'i sman***)
Alleviates ***rlung*** (***rlung sman***)
Cures lymph disorders (***chu ser sman***)
Cures parasitic infestations (***srin sman***)
Cures diarrhea (***'khru gcod sman***)
Cures urinary disorders (***chu sman***)
Emetics (***sogs skyugs sman***)
Purgatives (***'khru bar byed pa'i sman***)

[35] See Appendix A for a full enumeration of medicines listed under each category.

Many of these groupings of plants are ones that Rgyalthang doctors utilized in pile sorts although there are also two groups that doctors used which do not occur here: treats women's disorders, and used for 风湿 *fengshi*/***drod nad*** (rheumatism/arthritis).[36]

Classification of plants according to taste

This schema of classification exists quite explicitly in the ***Rgyud bzhi*** and the ***Baidur Sngon po*** but in no other text. Although later texts, beginning with the ***Shel Gong 'Phreng***, list the taste of a plant as one of its many aspects, there are not entire sections of the text which group plants according to taste, as is done in the ***Rgyud bzhi*** and the ***Baidur Sngon po***.

Rgyud bzhi and ***Baidur Sngon po***

In Chapter 19 (Book II in ***Rgyud bzhi***) of both texts, drugs (plants, animals, foodstuff) are classified according to taste.[37]

Group of drugs having sweet taste (***mngar ba'i sman sde***)
Group of drugs having sour taste (***skyur ba'i sde***)
Group of drugs having saline taste (***lan tsha'i sde***)
Group of drugs having bitter taste (***kha ba'i sman sde***)
Group of drugs having pungent/hot taste (***tsha ba'i sman sde***)
Group of drugs having astringent taste (***bska ba'i sde***)
Drugs having mixed taste (***ldan pa'i ro rnams de las bsgres te dpyad***)

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[36] During my stay in Rgyalthang, I learned that many people seemed to suffer from rheumatism/arthritis in the joints. I was told by one villager that this is a problem because people work in the fields in the summer, during the rainy season, and are exposed to too much dampness. Interestingly, most local people, including Tibetan doctors, seemed to favor the linguistic usage of Chinese *fengshi* over the Tibetan ***drod nad*** for this condition. The fact that this does not appear as one of the more common ailments listed in the ***Rgyud bzhi***, combined with the preferred usage of a Chinese term, seems to indicate that this is a localized condition in the rainy southern reaches of cultural Tibet.

[37] See Appendix B for a full enumeration of medicines listed under each category.

Kelsang Chöden explained to me that if you know the taste of a plant then you will know which disorders the plant can treat. Plants with sweet, sour, salty and pungent tastes can alleviate ***rlung*** disorders; bitter, sweet, and astringent tasting plants can alleviate ***mkhris pa*** disorders; and pungent, sour and salty tasting plants can alleviate ***bad kan*** disorders. According to the ***Rgyud bzhi***, this is true sometimes, but not always; knowing which disorder a plant can treat is also dependent on aftertaste (***zhu rjes***) and potency (***nus pa***).

Classification of plants according to part of plant used

While the ***Rgyud bzhi***, ***Baidur Sngon po***, and the ***Shel Gong 'Phreng*** all divide up plant categories into sub-groupings depending on which part of the plant is used (root, stem, flower, etc.), the various sub-groupings are never merged together to form larger, collated categories. In other words, all plants that have their roots utilized are not grouped together into a broad category of "roots-used plants." And yet this happened in at least one of the pile sorts (possibly because there was not a large enough sampling of plants from the parent categories), and was mentioned by several doctors in interviews as a possible way of classifying plants. The ***Shel gyi Me long*** does not use these sub-groupings at all. Dr. Ma considers classification according to part of plant used to fall under the more general category of classification of 'place' (***gnas***) (the other sub-category within classification by 'place' is where plant grows/habitat).[38]

[38] I will discuss the use of 'place' (***gnas***), along with that of 'kind' (***rigs***) in Chapter Seven.

Classification of plants according to hot/cold characteristics

Doctors would sometimes mention that the most general way one can classify plants is according to plants having either heating or cooling properties. Plants that grow in the sun, and at low altitudes, have heating properties while those that grow in the shade or at high altitudes (especially above 4,000 m) have cooling properties. Disorders, as well, can be generally classed as hot, cold, or neutral disorders. A person with a hot disorder should be treated largely (although not exclusively) with cooling plants. This is given precedent in Chapter 20 of the ***Rgyud bzhi*** (and also in the ***Baidur Sngon po***) in the section on strength (***stobs***):

> The Himalayas and the Vindhya mountain [in central India] are endowed with the strength of the moon and the sun respectively. Therefore, the drugs growing in the Himalayas are dominated by the cooling effects, and those growing in the Vindhya mountain are dominated by the heating effects. The drugs having heating effects cure all the diseases caused by cold, and the drugs having cooling effects cure all the diseases caused by heat. (Dash 1995: 118)

Interestingly, Kelsang Chöden, who had lived in India for quite a number of years, explained to me that he had his own further interpretation of the importance of the hot/cold distinction in plants: "People that live in low-altitude (and hot) places, such as India and China, can benefit greatly from plants that grow at higher elevations, like in Tibet." Interestingly, he was not sure if the opposite was true. He said they had not read this anywhere, but that this was based on his own experience.[39]

[39] Ngawang Chopel of Ninong had another interesting variation on this theme. He said that people should eat plants (as medicine) from areas outside of their native village because one can become 'immune' to local flora due to living in such close proximity with it.

Classification of plants according to habitat

There does not appear to be any textual precedent for this type of classification in the cannons (***Rgyud bzhi*** and ***Baidur Sngon po***) except in the sense of plants from the Himalayas and those from the Vindhya mountain range. But there is no explicit classification by habitat or elevation, although certainly both are given as important aspects of each plant in later texts. Interestingly, during one interview with Pema Tenzin when he spoke in Tibetan, he used the Mandarin term 海拔 *haiba* (elevation) rather than the Tibetan equivalent (***mtho tshad***) for elevation. This may again point to the dominance of Mandarin in science-oriented speech. Dr. Ma discussed habitat as a sub-grouping of classification according to 'place' (***gnas***) (see Chapter Seven).

Classifications of plants according to efficacy (nus pa$_1$) and potency (nus pa$_2$)

This is perhaps the most complicated of the groupings of plant classifications, due to theoretical complexities of medicine and well as linguistic complexities of meaning. First, one of the complications lies in the fact that the Tibetan word ***nus pa*** has two meanings in the medical context: 'efficacy' and 'potency.' 'Efficacy' refers to the combination of a number of different aspects: 'potency' (***nus pa*** or ***nus***), 'strength' (***stobs***) and 'attributes' (***yon tan***). Potency refers very specifically to certain qualities: heavy (***lci***), oily (***snum***), cold (***bsil***), dull (***rtul ba***), light (***yang***), coarse (***rstub***), hot (***tsha ba***), and sharp (***rno ba***).[40] In the ***Rgyud bzhi*** and the ***Baidur Sngon po*** this dual meaning

[40] Attributes (***yon tan***) refers to the following seventeen qualities: smooth (***'jam***), heavy (***lci***), warm (***dro***), oily (***snum***), firm (***brtan***), cold (***grang***), dull (***rtul ba***), cool (***bsil***), flexible (***mnyen***), thin (***sla***), dry (***skam***), non-oily (***skya***), hot (***tsha ba***), light (***yang***), sharp (***rno***), coarse (***rtsub***), and mobile (***g.yo***). Note that eight

of ***nus pa*** is readily recognized; one type of ***nus pa***, what I term ***nus pa*$_1$**, is termed the more general (***spyi***) meaning of ***nus pa*** while the second type, ***nus pa*$_2$**, is the specific (***bye brag***) meaning of ***nus pa***. Yet I did not understand this distinction until after my fieldwork. When doctors explained to me that they classify plants according to ***nus pa***, I automatically assumed they meant potency (and translated it as such in my notes); it is possible that they were referring to efficacy as well, so I have included that as a potential classifying principle.[41]

Classification according to efficacy essentially boils down to classification according to disorders treated, since the effect in question is that in alleviating whichever disorder is it that is ailing the body. Although Chapter 20 of the ***Rgyud bzhi*** and the ***Baidur Sngon po*** are dedicated to discussing efficacy and the various aspects of determining efficacy, plants are not specifically classified according to efficacy (***nus pa*$_1$**) anywhere in these texts. Yet as we shall see below in the analysis of Dr. Ma's notes, efficacy is an important distinguishing characteristic that helps structure the way that doctors think about plants in groups.

Similarly, plants are not directly classified according to potency (***nus pa*$_2$**) in the medical texts either. That is, unlike the explicit classifying that takes place in terms of nature/essence→physical characteristics, disorders treated, and taste, none of the medical texts in the present study spell out which plants should be grouped together due to their

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of these qualities are the same as those of potency (***nus pa*** or ***nus***). In the ***Rgyud bzhi***, these eight qualities are said to be particularly efficacious for healing (hence the English gloss 'potency'): "The best ones amongst all of the attributes which are endowed with excellent therapeutic efficacy are called potency" (Dash 1995: 117).

[41] It is clear in retrospect, for example, that Dr. Ma used both the general and the specific meanings of ***nus pa***—although not at the same time—in some of his notes.

potency. Instead, the ***Rgyud bzhi*** and the ***Baidur Sngon po*** list what the eight types of potency are: heavy, oily, cold, dull, light, coarse, hot, and sharp. The texts also describe which of the potencies alleviate which humoral disorders. Doctors explained to me that one could classify plants based on these eight potencies and that it is important in knowing which disorders to treat (although one must also know the attributes, termed characteristics, ***msthan nyid***, of the disorders). I will discuss this more at length in the next chapter on disorders.

Analysis of Dr. Ma's notes

As explained in Chapter Four, an important source of knowledge communication was (and continues to be) notes (and letters) written by Ma Liming. Here I examine one such sheet of notes since what it reveals is relevant to the preceding discussion about various ways of classifying (and thus "thinking about") plants by Tibetan doctors (see Figure 5.8).

On July 16, 2001, Dr. Ma and I met in his office at the Tibetan Hospital in the late afternoon. I had a list of questions to ask him. After nearly one and a half hours of discussion we had not even gotten to all of my questions but had spun off into other related topics that he felt it was important I understood (this was a typical script for many of our conversations). One such topic was that of the four important characteristics one must keep in mind when mixing plants: taste, efficacy (***nus pa***$_1$), aftertaste, and the

efficacy the medicine has by itself (***rkyang pa'i nus pa***).[42] Dr. Ma explained that when mixing two medicines, the most important thing to consider is that the efficacy of each substance has to match. The example he gave was of mixing ***dza tig*** (*Myristica fragrans*) with ***cu gang*** (a substance obtained either from the inner pith of bamboo or from a particular type of calcium stone). Since both ***dza tig*** and ***cu gang*** alleviate ***rlung*** disorders, the efficacies are the same and the substances can therefore be mixed. He further explained that one must also balance out the heating and cooling properties of the materials so that the mix is neither too hot nor too cold. Interestingly, he notates hot (***tsha ba***) and cool (***bsil ba***) aspects as those of taste (***ro***). While hot is recognized as one of the eight tastes in the ***Rgyud bzhi*** and ***Baidur Sngon po***, cool is not (although it is one of the potencies).[43]

Since the most important characteristic when mixing medicine is getting the efficacy of the substances to match (finding the most crucial aspect of "likeness" between them), this signals yet again the importance of ordering plants (and other medicinal substances) primarily in terms of which disorders they can have an effect on.

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[42] The distinction between efficacy (***nus pa***) and efficacy by itself (***rkyang pa'i nus pa***) has been difficult for me to discern (and it was difficult for Dr. Ma to explain to me). I believe that efficacy by itself refers to the nature/essence (***ngo bo***) of a material, regardless of its taste, potency, or aftertaste—all three of which in concert effect the material's overall efficacy. Just how such a distinction can be made (how the efficacy without taste, potency, and aftertaste can be distinguished from the overall efficacy) I do not understand.

[43] Dr. Ma's explanation, given on another day, of the six tastes matches that of the ***Rgyud bzhi*** and ***Baidur Sngon po*** so writing cool (***bsil***) as the taste of ***cu gang*** could have simply been in error. The ***Shel gyi Me long*** lists cool as the aftertaste of ***cu gang*** although cool is not recognized as one of the three aftertastes in the ***Rgyud bzhi*** or the ***Baidur Sngon po***. Alternately, Dr. Ma's category of taste (***ro***) could actually have been potency (***nus pa***$_2$). In a 1997 text that I found in a bookstore in Lijiang, *The New Dawn Summary of Tibetan Medicine* (***Gso rig snying bsdus skya rengs gsar pa***), the eight aspects of potency are enumerated as the potency of taste (***ro'i nus pa***). Thus the term taste may have several uses.

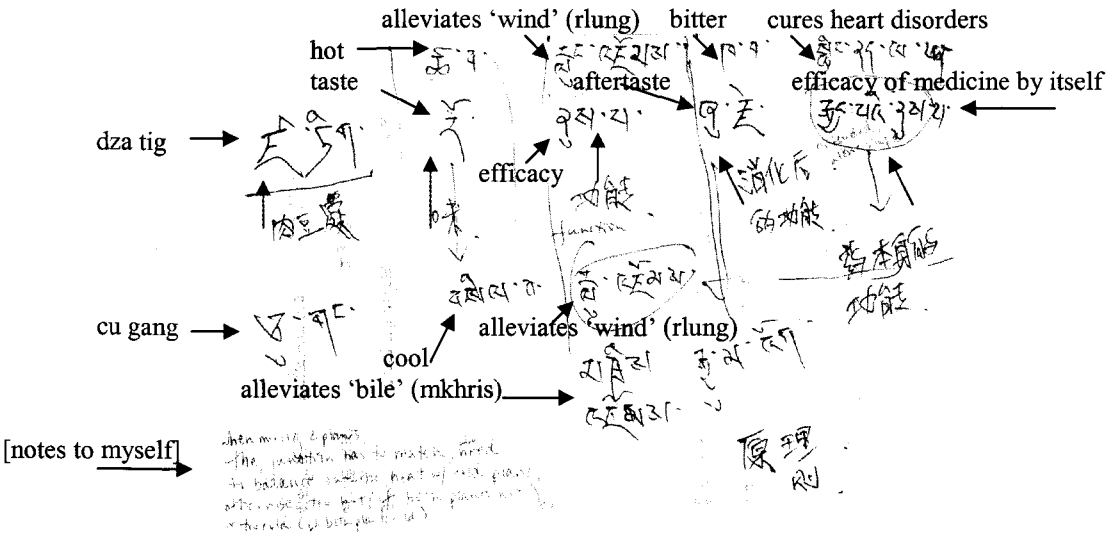

Figure 5.8 Notes by Ma Liming explaining four important characteristics of ingredients (taste, efficacy, aftertaste, efficacy of medicine by itself) when mixing medicines. Chinese equivalents for Tibetan terms are indicated by blue arrows (pointing from Chinese to Tibetan).

Why all these schemas?

Besides the possibility that these various ways of classifying are simply "good to think," á la Lévi-Strauss, what might be some factors that help explain them? Would one schema be more or less useful than another in certain circumstances? It seems that the obvious answer to this last question is yes; here I speculate as to what some of these circumstances might be.

First, given that Tibetan doctors theoretically collect and process plant materials in preparation for compounding into medicine, knowing habitat and part of plant that is useful is important to carry out these functions. Not all of the Rgyalthang doctors I interviewed actually do this on a regular basis—at least not any longer for some of

them—but they all have had extensive training in these areas. As mentioned earlier, due to his responsibilities at the Tibetan Hospital, Dr. Ma would undoubtedly be attuned to these two types of classification, which appeared in his pile sorts. Yet other doctors mentioned these forms of classification as well in interviews, so use of these schemas is not particular just to Ma Liming.

Classification according to physical characteristics, as exemplified in the ***Shel gyi Me long***, could potentially be beneficial for two inductive purposes. First, if one wanted to quickly locate or reference information on a particular plant, one would simply have to know the basic morphology of the plant in question (essentially, if it is a tree, an herb, or a grain) and then the plant could be easily located under the proper category (assuming one knew the name of the plant). If one had forgotten the taste, potency, heating/cooling characteristics of a plant and/or could not remember which disorder(s) the plant treated, morphology would be an easy, observable characteristic to focus on. Secondly, if one came upon a plant while collecting but did not know much about the plant (less probable for experienced doctors, but not for novices), one could also use morphology as a reference with which to locate the plant in the text.

Classifications according to taste, potency, heating or cooling characteristics, and disorders treated appear to all be related, as indicated by Dr. Ma's notes on mixing medicines. They are all important characteristics to consider when compounding medicines and they all essentially point to the same goal: creating a substance that will have a healing effect on the imbalance of humors (dis-order) in the human body. This does not come as a surprise. The livelihood of a doctor, Tibetan or other, depends on

being able to attend to the health of patients. Since this is a doctor's primary concern it makes sense that many of the classificatory schemas of medicinal substances that he/she engages with would point toward the importance of treatment. For Tibetan doctors there are several variations of schemas (for this goal alone) because of the pharmacological complexities of compounding medicines.

Conclusion

The significance of the findings presented in this chapter in terms of natural-kind classifications is twofold. First, as we have seen, the various classifications of medicinal plants by Tibetan doctors seem to rely at least to some degree on those in medical texts. While early texts consider efficacy to be an important criterion of category membership, later texts consider physical characteristics, especially morphology, to be more central. In addition to classifying by nature/essence (***ngo bo***), early texts also present a variety of ways of grouping plants together (according to disorder treated and according to taste being the most explicit). Rgyalthang doctors appear to utilize all of these classificatory options. Thus the classifications of medicinal plants that contemporary Rgyalthang doctors make are codified in medical texts; this demonstrates the importance of textual analysis and the examination of literacy in the study of natural-kind classifications.

Secondly, as articulated by Dr. Pema Tenzin, the act of classifying is a situational one. In contrast to the way that classification is often represented in ethnobiological literature (and contrary to my expectations when entering the field), the present work has shown that classificatory schemas vary, depending on circumstances. While Rgyalthang

doctors appear to utilize all of the classificatory options presented in medical texts (and others not explicitly enumerated in these texts) undoubtedly for different purposes, organization according to disorder seems to be the most salient schema in their professional lives as doctors; this highlights the importance of understanding the purpose or utility of classification.

In the next chapter I examine disorders in Tibetan medicine and their classifications. On the surface there may not appear to be much connection between how plants are conceptualized and classified and how disorders are, but we shall see that this is not the case.

Chapter Six:
Disorders in Tibetan Medicine

The analysis in this chapter relies in large part upon Tibetan medical texts (mainly, the ***Rgyud bzhi***), and commentaries upon these texts, with reference to important points of health and disease as discussed with me by Rgyalthang doctors. I did not spend an extensive amount of time in conversation with doctors discussing disorders or their classifications (as I did with that of plants) yet important aspects of disorders were often discussed as they related to plants.[1] Since the most common way of classifying plants in pile-sorts by Rgyalthang doctors was according to the disorders that the plants treat, and since I was encouraged by these same doctors to look at Tibetan medicine in its entirety in order to more fully understand plant classifications, I devote this chapter to an examination of the theoretical foundations of Tibetan medicine, focusing especially on disorder: how disorder in the body is conceptualized, and how disorders are organized in a system of classification. I do not list all disorder classifications, particularly those at lower levels, since such detail is not necessary for the current study. Instead, I highlight those classifications with the most salience for plant classifications. In particular, I examine where there are parallels drawn between plants and disorders, since this was a reoccurring theme that I encountered. I argue that plants and disorders are conceptually linked through the theory of five elements as well as through discursive language. I begin the chapter with a basic introduction to the theoretical foundations of Tibetan medicine.

[1] I use the term "disease" to refer to the general state of humoral imbalance (lack of a healthy, balanced state) and "disorder" to refer to specific imbalances.

Health and disease, the three humors, and the five elements

The theory of health and disease in Tibetan medicine is based on the concept of three humors (***nyes pa gsum***): ***rlung*** ('wind'), ***mkhris pa*** ('bile'), and ***bad kan*** ('phlegm').[2] Often described as types of energy, these humors exist in all people. On one level, Tibetan medical theory states that when the humors are in proper balance, good health is the result; in contrast, disease arises when there is an imbalance of the three humors (either having too much or too little of one or more of them). So, for instance, the ***Rgyud bzhi***, Book II, Chapter 6 states:

> ***nad kyis dbye ba rnam par ma gyur gyur/***
> ***rnam par ma gyur lus gnas tha mal la/***
> ***nad med gnas dang ring du 'tsho bar bya/***
> ***rnam gyur nad kyis bcom pa'i lus de gso//***
>
> Depending upon the condition of the dośas [humors], the physique can be classified into two categories as follows:
> 1) The body which is not vitiated [undisturbed] by dośas [humors];
> 2) The body which is vitiated [disturbed] by dośas [humors].
> The unvitiated dośas are located in the entire body. They make the body free from disease and promote longevity. The body vitiated by dośas get decayed [sic] and a person having such a physique is required to be treated. (Dash 1994(2): 85)

The aim of medicine, in this view, is to help the body attain a proper humoral balance, through diet, behavior, the use of medicines, and other therapeutics such as massage, mineral baths, etc.[3]

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[2] Here I provide English glosses of these terms; throughout the dissertation I use the Tibetan for each of these humors in part because the use of the Tibetan terms is quite common in contemporary English-language works on Tibetan medicine. See Gyatso (forthcoming) for an interesting discussion about the translation of the three humors.

[3] While the three humors exist in all people (and have particular dominant sites of location throughout human bodies), often one or two humors "naturally" predominate in bodies. Thus in the ***Rgyud bzhi***, Book II, Chapter 6, one of the ways that bodies are classified is according to their natural constitution (***rang bzhin***) with regard to humoral balance. Hence there are seven types described, with constitution caused by the predominance of: 1) ***rlung***; 2) ***mkhris pa***; 3) ***bad kan***; 4) ***rlung*** and ***mkhris pa***; 5) ***rlung*** and ***bad kan***; 6)

On another level, the three humors themselves—even in a state of balance—are said to be the ultimate cause of disease. Defining the three humors (even in a state of balance) as the ultimate cause of disease is based upon the argument that the humors are a necessary but not a sufficient condition for disease. That is, the three humors in balance must be present (they are necessary) but they themselves do not give rise to disease (they are not sufficient) unless in an imbalanced state. In Buddhist philosophy, such a distinction is known as distinguishing ultimate from proximate causes; indeed the ***Rgyud bzhi*** uses similar terminology (in Book II, Chapter 8) to discuss disease etiology:

> ***dang po rgyu la ring rgyu nye rgyu gnyis/***
>
> The first topic dealing with the primary cause is classified into two categories:
> 1) distant [ultimate] cause (***ring rgyu***)
> 2) proximate cause (***nye rgyu***)
> (Adapted from Dash 1994(2): 110)

The distant cause of disease is said to be "egoic" ignorance (***bdag 'dzin ma rig pa***) of the true nature of existence, while the proximate cause is said to be the three humors.[4] In order to understand the connection between ignorance and the three humors, we must turn to a discussion of how the three humors are said to originate.

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mkhris pa and ***bad kan***; 7) [the equilibrium] of all three humors. Each of these seven body types has distinguishing characteristics (in terms of physique, intelligence, complexion, personality traits, likes and dislikes, etc.) with which it can be associated. Doctors must take into consideration a patient's bodily constitution when making a diagnosis and prescribing treatment. When the discussion of body types arose in a conversation I had with Ma Liming, he explained that it is usually fairly easy (with proper training) to determine which type a person is by observation and questioning. He listed the seven types and mentioned a few characteristics of each. He then went on to explain that these body types are analogous to blood types (A, B, O, AB) although there is not an exact match between the two systems, he noted. Although I did not ask him to list the similarities and differences, I found it intriguing that he would draw such a parallel.

[4] These are both considered primary causes (***rgyu***). Secondary causes (***rkyen***) can also affect the three humors. Such causes, explained in the ***Rgyud bzhi***, Book II, Chapter 9, include seasonal changes, evil spirits, poison, eating unwholesome food, being given the wrong therapy, and karmic manifestation of past wrong-doings.

Essentially there are two explanatory frames through which the existence of the three humors is described: one philosophical (or metaphysical) and the other physical.[5] The first is related to the Buddhist idea that human suffering is due to three basic (psychological) "poisons" (***dug gsum***), all arising from ignorance (***bdag 'dzin ma rig pa***) of the true nature of existence; these poisons are attachment (***'dod chags***), hatred (***zhe sdang***), and delusion (***gti mug***). The three mental poisons give rise to the three humors. Delusion gives rise to ***bad kan***, hatred gives rise to ***mkhris pa***, and attachment gives rise to ***rlung***. As stated in the ***Rgyud bzhi***, Book II, Chapter 8:

> The sole cause of all disease is said to be ignorance due to the lack of understanding of the meaning of selflessness.... from ignorance arise the three poisons of attachment, hatred and closed-mindedness [delusion] whence are produced in turn the humors of wind, bile and phlegm. (Clark 1995: 75-6)

While Ma Liming and I never discussed the philosophical explanation of the three humors (or, ultimately, disease), he did write down two stanzas from the ***Rgyud bzhi*** that follow directly from the quote just given.[6] These stanzas are:

> ***rnam par ma gyur nad kyi rgyu 'gyur la/***
> ***rnam 'gyur ma snyoms nad kyi ngo bo yin//***

---

[5] It is interesting to note that the ***Rgyud bzhi*** does not present in-depth discussions of these frames but merely assumes a certain amount of familiarity with these concepts, especially the five elements. For example, Book II, Chapter 2 explains the formation of the body: "First, the causes of formation in the womb are non-defective sperm and blood of the father and mother, the consciousness impelled by karma (actions) and by the afflictive emotions and the assembled five elements" (Clark 1995: 47). To the best of my knowledge, little explanatory elaboration is presented. "Psychological" and "physical" are my terms although I have encountered similar vocabulary in various English-language publications of Tibetan medicine. See, for instance, Tsona and Dakpa (2001).

[6] I am extremely grateful to Yonten Gyatso for helping me make sense of these two stanzas and for helping me locate them in the ***Rgyud bzhi***. Because Ma Liming wrote the stanzas in his notes (which he subsequently gave to me) I was able to re-visit (more than two years after the end of my fieldwork) the importance of the lines in connection to our discussion of the five elements—an example of the role written language has had on the production of knowledge in this dissertation. The translation I provide of these stanzas is adapted from Yonten Gyatso's translation.

> [With] no changes in their state of balance, [the three humors] become the cause of disease.
> [If] the state of balance changes to imbalance, [the three humors] become disease entities.

Given in context, the stanzas are enframed by the concept that ignorance is the ultimate cause of disease. As stated six stanzas before those written by Ma Liming,

> ***'gro kun bde bar gnas shing spyod na yang/***
> ***ma rig ldan pas nad dang 'bral mi srid//***
>
> It is not possible for living beings to remain free from diseases even if they adopt wholesome regimens because of their [eternal] association with ignorance. (Dash 1994(2): 111-12)

In short, the Buddhist outlook on "health," as presented in the ***Rgyud bzhi***, is that it is ultimately not attainable as an enduring state. From this perspective, existence in a human body is inherently full of defilement; such bodies are susceptible to disease not simply in a state of imbalance but even in a state of balance—because they exist at all. The first noble truth of Buddhism states that life is suffering (Sanskrit: dukkha). Insomuch as the ***Rgyud bzhi*** is based on Buddhist philosophy, one could argue that disease is more the "natural" state of human existence than is that of "health." I suspect that due to the Buddhist-oriented philosophical explanation of the three humors and disease, Ma Liming either did not feel comfortable or qualified in discussing this with me; his orientation to Tibetan medicine—at least as discussed with me—was more toward materialist, not metaphysical, explanations, as described in Chapter Three. It is also possible that he attempted to explain the philosophical stance to me (hence writing the two stanzas quoted above) but I did not fully grasp the important distinction at the time of our conversation. It could also be that the physical explanation for the existence of the three humors and

disease are more salient for a practicing Tibetan doctor, particularly if he/she is a pharmacologist, as will become apparent shortly. For whatever reason, our conversations about the three humors and disease primarily relied on the physical explanatory frame, to which I now turn.

The physical explanation of the three humors is based on the theory of five elements (***'byung ba lnga***): ***sa*** (earth), ***chu*** (water), ***me*** (fire), ***rlung*** (air), and ***nam mkha'*** (space). These elements exist in all matter in the universe. They are variously described as being energies rather than physical substances:

> The five cosmo-physical elements are not static physico-chemical elements, but dynamic forces that are characterized more by their inherent energetical function than their actual state. For instance, Water does not mean a molecule of H_20 but its inherent energetical function to bring about a quality of heaviness, flexibility, coolness, etc. (Tsona and Dakpa 2001: 18)[7]

Each element has particular characteristics that are associated with it:

> Earth: heavy (***lci***), stable (***bstan***), blunt (***rtul***), smooth (***'jam***), oily (***snum***), and dry (***skam***)
> Water: fluid (***sla***), cool (***bsil***), heavy (***lci***), blunt (***rtul***), oily (***snum***), flexible (***mnyen***)
> Fire: hot (***tsha***), sharp (***rno***), dry (***skam***) coarse (***rtsub***), light (***yang***), oily (***snum***), mobile (***g.yo***)
> Air: light (***yang***), mobile (***g.yo***), cold (***grang***), coarse (***rtsub***), non-oily (***skya***), dry (***skam***)
> Space: porous (***khong stong***) and light (***yang***)[8]

---

[7]The translation of ***'byung ba*** as English "element" is quite problematic. In Tibetan ***'byung ba*** means to come forth, to emerge, arise, or spring up. All of these indicate that ***'byung ba*** suggests movement, rather than a quality of fixed-ness, as in the English term "element." A similar problem of translation occurs in discussions of the five "elements" (五行 *wuxing*) of Chinese medicine. The character 行 (*xing*) means to walk, travel, or move, but is also usually translated as "element"(see Porkert, 1974, for an interesting argument for the use of the term "phases" rather than "elements" in reference to Chinese medicine). It is perhaps best to think of "element" here more in terms of 'first principle' (Latin *elementum*) rather than a fixed substance. Alas, after much deliberation, I have decided to adhere to the more common translation of "element" for ***'byung ba*** in this work.

[8] Dash (1997) notes these two characteristics for the element ***nam mkha'*** while the authors of *Fundamentals of Tibetan Medicine* (2001: 66-7) do not note any characteristics associated with ***nam***

These elements combine in various ways to produce the three humors. The combination of space (***nam mkha'***) and air (***rlung***) create the humor ***rlung***.[9] Fire (***me***) creates ***mkhris pa***. Water (***chu***) and earth (***sa***) create ***bad kan***.[10] Each humor, in turn, has certain characteristics, as described in the ***Rgyud bzhi***, Book II, Chapter 5:

> ***rlung***: coarse (***rtsub***), light (***yang***), cold (***grang***), subtle (***phra***), hard (***sra***), and mobile (***g.yo***)
> ***mkhris pa***: slightly oily (***snum bcas***), sharp (***rno***), hot (***tsha***), light (***yang***), malodorous (***dri mnam***), purgative (***'khru***), and moist (***gsher***)
> ***bad kan***: oily (***snum***), cool (***bsil***), heavy (***lci***), blunt (***rtul***), smooth (***'jam***), firm (***brtan***), and sticky (***'byar bag can***)

Dash describes the three humors as a type of short-hand in assessing the status of the five elements in the body:

> Since these [five] basic elements are present both in the individual and in the ingredients of food, etc., and their characteristic features are known, theoretically, it appears easy to treat the diseases. But in practice, it is not so. To ascertain the exact basic element increased or decreased in the individual to cause the disease, and to determine the exact basic elements composing the ingredients of food, etc., is practically difficult. To facilitate proper judgement, the actions of these basic elements in an individual are described in the form of the three *ñes-pas*... (Dash 1997: 12)

Each of the three humors is divided into five types.[11] The various combinations of the fifteen sub-types of humors (and ultimately the various combinations of the five elements

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mkha'. Dash's interpretation seems to be born out in the text of the Rgyud bzhi, Book II, Chapter 19: "***nam mkha' 'byung bzhi'i sman la spyir khyab ste/ khong stong yangs pa'i go 'byed 'dus nad sel//***."

[9] The polysemy of ***rlung***, as meaning 1) the humor and 2) the element, is an interesting phenomenon to contemplate and one which I do not have the expertise to discuss.

[10] Some sources state that ***nam mkha'*** is all-pervasive and therefore is an element in the creation of all three humors, not just the ***rlung*** humor. See, for instance, Tsona and Dakpa (2001: 18-20), as well as Dhonden (2000: 33-4).

[11] The five types, as identified in *Fundamentals of Tibetan Medicine* are as follows: life-sustaining ***rlung***, ascending ***rlung***, pervasive ***rlung***, fire-like ***rlung***, downward-voiding ***rlung***; digestive ***mkhris pa***, color-regulating ***mkhris pa***, accomplishing ***mkhris pa***, sight ***mkhris pa***, complexion-clearing ***mkhris pa***; support ***bad kan***, decomposing ***bad kan***, experiencing ***bad kan***, satisfying ***bad kan***, connective ***bad kan*** (Tsona and Dakpa: 20-1).

underlying these humors) result in the seven bodily constituents (***lus zungs bdun***): nutritional essence (***dangs ma***), blood (***khrag***), muscle tissue (***sha***), fatty tissue (***tshil***), bone (***rus***), marrow (***rkang***), and regenerative essence (***khu ba***). These, in short, are the parts that make up a human body. The waste products of the body (***dri ma gsum***) are defecation, urination, and perspiration; diagnosis in part relies upon analysis of these waste products, as doctors can judge the balance of elements and humors in the body through these three excretions.

At one point during a conversation with Ma Liming I asked if the five elements of Tibetan medicine were like those in Chinese medicine (not having remembered, at the time, the differences between them). He indicated that the five elements of Tibetan *astrology* (***rtsis skabs***)[12]—not those of Tibetan medicine—are equivalent to the five elements, 五行 (*wuxing*), of Chinese medicine and described them as types of energy, using the Chinese term 气 (*qi*) for energy (see Tables 6.1 and 6.2).

Table 6.1 Comparison of five elements: Tibetan astrology and Chinese medicine

English gloss	Tibetan (for astrology)	Chinese (for medicine)
earth	***sa***	土 (tu)
water	***chu***	水 (shui)
fire	***me***	火 (huo)
wood	***shing***	木 (mu)
metal	***lcags***	金 (jin)

[12] Tibetan ***rtsis skabs*** literally means "star calculations" and includes studies of constellations as well as horoscopes and other subjects more usually attributed to astrology. For the sake of simplicity, and because astrology usually includes a certain amount of astronomy, but not vice versa, I have elected to use the term astrology for both Tibetan ***rtsis skabs*** and Chinese 天文 (*tianwen*).

Table 6.2 Comparison of five elements: Tibetan medicine and Āyurvedic medicine (terms are in Sanskrit)

English gloss	Tibetan (for medicine)	Sanskrit (for medicine, Āyurvedic tradition)
earth	***sa***	bhūmi
water	***chu***	jala
fire	***me***	agni
air	***rlung***	vāyu
space	***nam mkha'***	ākāśa

This conceptual difference between the five elements used in Tibetan medicine and those in Tibetan astrology reflects the influence of both the Indian (Āyurvedic) and Chinese medical traditions on Tibetan intellectual life: Āyurvedic five elements are the same as Tibetan medicine five elements; Chinese medicine five elements are the same as Tibetan astrological five elements.[13] It is perhaps not surprising, then, that the use of Chinese 气 (*qi*) should arise in our discussion of the five Tibetan astrological elements, since the Chinese system of five elements correlates to those in Tibetan astrology.[14]

The five elements also combine to create the six tastes and three post-digestive tastes (see Table 6.3), from which one can determine the properties and actions of medicines.

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[13] The five elements of the Chinese medical tradition also exist in Chinese horoscopy, hence these elements do not emanate from the Chinese medical tradition only. Tibetan astrology is often described as having two divisions: one called "white" calculations (***dkar rtsis***) and the other "black" calculations (***nag rtsis***), referring to the Indian and Chinese traditions of astrology, respectively. One of the most significant ways that Chinese five elements is incorporated into Tibetan astrology appears to be in calendrical reckoning, where one of the five elements is said to rule for two years. See Berzin (1987).

[14] Unfortunately I cannot recall, and my notes do not indicate, whether Ma Liming volunteered the use of Chinese 气 (*qi*) to describe these or if I prompted him by asking something about the Chinese concept of *qi*. I wish now that I had noted more carefully how the use of this term arose in our conversation since it could have interesting implications to the theory of linguistic relativity as discussed in Chapter Four.

Table 6.3 Relationship between the five elements in combination, the six tastes, and the three post-digestive tastes. Adapted from Tsona and Dakpa.

Combination of five elements	Six tastes	Three post-digestive tastes
earth & water	sweet (***mngar***)	sweet (***mngar***)
earth & fire	sour (***skyur***)	sour (***skyur***)
water & fire	salty (***lan tshwa***)	sweet (***mngar***)
water & air	bitter (***kha ba***)	bitter (***kha ba***)
fire & air	pungent (***tshwa ba***)	bitter (***kha ba***)
earth & air	astringent (***bska ba***)	bitter (***kha ba***)

Chapter 19 (Book II) in the ***Rgyud bzhi*** gives detailed information on the therapeutic actions and properties of the three tastes. Without quoting this section in full, below are three stanzas at the beginning of the section that provide an overview of how the three tastes effect the three humors:

> ***mngar skyur lan tsha tsha bas rlung/***
> ***kha dang mngar dang bska bas mkhris pa sel/***
> ***tsha skyur lan tshas bad kan sel bar byed//***
>
> Sweet, sour, saline, and pungent tastes alleviate ***rlung***. Bitter, sweet, and astringent tastes alleviate ***mkhris pa***. Pungent, sour, and saline tastes alleviate ***bad kan***. (Dash 1995: 105)

Post-digestive taste is referred to as the taste that emerges after the digestive process has begun in the stomach. The ***Rgyud bzhi*** (Book II, Chapter 19) states that sweet and salty tastes become sweet in post-digestion; sour taste becomes (remains) sour; and bitter, pungent, and astringent tastes become bitter. The text further states that each of the post-digestive tastes alleviates two of the three humors (***nyes pa gsum po gnyis gnyis re***

res sel), although it does not indicate the relationships of efficacy. Fortunately, Vaidya Bhagwan Dash, in his translation of the ***Rgyud bzhi***, references the Sanskrit text upon which this section of the ***Rgyud bzhi*** is supposedly based and provides the relationship between the post-digestive tastes and the three humors:[15]

1) Sweet post-digestive taste alleviates ***rlung*** and ***mkhris pa***
2) Sour post-digestive taste alleviates ***bad kan*** and ***rlung***
3) Bitter post-digestive taste alleviates ***bad kan*** and ***mkhris pa***

(Dash 1995: 113)

In many ways, then, the theory of five elements is the crucial link between plants (as medicine), and disorders, since all matter in the world is composed of some combination of these elements. From the standpoint of the epistemology of Tibetan medicine, the five elements act as a sort of first principle. I will return to the significance of this point below when discussing plants and disorders in summary.

Classification of disorders

Below I present a basic outline of the main categories of disorders, elaborating on subdivisions that are pertinent to this study, as given in the ***Rgyud bzhi***, Book II, Chapter 12 (Classification of Disorders).

The ***Rgyud bzhi*** lists three main categories of disorders, based on the following:

I) causative factors (***rgyu yi dbye ba***)

[15] I have cross-referenced Dash's explanation with that given in Clark's translation of the ***Rgyud bzhi*** (Clark 1995) as well as that in Tsona and Dakpa (2001), and have found these same relationships explained in these other sources.

II) the 'vessel' or 'receptacle' (***rten***) in which the disorder appears [this includes the type of body in which disorder is manifested as well as the location, in the body, in which the disorder appears]

III) characteristic features (***rnam pa'i sgo nas dbye ba***) of the disorder

There are subcategories within each of these basic divisions, some of which I briefly discuss; I elaborate on the significance of the subcategories with particular salience for the present study.

Classification according to causative factors (category I) includes disorders caused by A) humoral imbalance, B) (negative) action from past lives, and C) a combination of these two.

Classification based on the vessel (category II) is the most detailed classification of disorders in the ***Rgyud bzhi***. The most basic division within this classification is according to the type of body in which the disorder is manifested:

A) disorders of males

B) disorders of females

C) disorders of children

D) disorders of old people

E) disorders common to all ages and sexes

For the last division (those common to all), four further subdivisions are made:

1) humors involved in causing the disorder

2) predominance of one or another humors

3) location of the disorder (***gnas***)

4) type/variety of disorder (***rigs***)

Of particular importance for this study are the first and the last two subdivisions, since these provide discursive links between disorders and plants. I explain the significance of disorders classified according to the humors involved in causing the disorder below in the section on balancing medicines and disorders. The classificatory use of location (***gnas***) and type (***rigs***) is a fairly common way of dividing up disorders even at lower levels of classification. For example, under the first subdivision given immediately above (1) according to the humors involved in causing the disorder, the three humors are each listed. Under each humor, a division is made between general (***spyi***) and specific (***bye brag***) disorders caused by the humor. Under general disorders, a final subdivision is made between type (***rigs***) and location (***gnas***) of the disorder. I will explain the significance of this shortly.

Returning to the above list of four subdivisions under "disorders common to all ages and sexes," the third subdivision of ***gnas*** "3) location of the disorder" is first divided by whether the disorder is located in the physique (***lus***) or the mind (***sems***). While two disorders are of the mind (insanity and epilepsy) ninety-nine are of the physique. Physical disorders are further divided into five groups based on where in the body they become manifest: 1) in the upper part of the body, 2) in the lower part of the body, 3) in the exterior of the body, 4) in the interior of the body (in solid and hollow viscera), and 5) pervading the entire body. In one of the conversations I had with Ma Liming, he explained (and drew sketches of) these five locations where disorders can arise.

The subdivision of disorders according to type/variety (***rigs***) is subdivided into four categories: 1) internal disorders (***khong nad***), 2) ulcers, both internal and external (***rma***), 3) fevers (***tshad pa***), and 4) miscellaneous (***thor bu'i nad***).

The third main category in the major division of disorder classification is that based on "various characteristic features" (category III). This includes classifying according to various diagnostic measures as well as classifying according to the characteristics of the disorder being hot or cold. As stated in the ***Rgyud bzhi***,

> ***bad rlung grang la khrag mkhris tsha bas na/***
> ***du mar phye yang tsha grang gnyis su 'dus//***
>
> ***Bad kan*** and ***rlung*** disorders are cold in nature. ***Khrag*** and ***mkhris pa*** are hot in nature. All the categories of disorders are included under these two categories. (Dash 1994(2): 182)

This was another important parallel between plants and disorders as explained to me by Ma Liming and other doctors, since plants can also be classified as either being hot or cold. In fact, Rgyalthang doctors explained that the division of hot and cold plants, as well as hot and cold disorders, is one of the most basic classificatory divisions.

Balancing medicines/plants and disorders

Just as balance is an important concept in understanding the proper functioning of the three humors and five elements in the body, it is a crucial principle in understanding the connection between medicines/plants and disorders. When Ma Liming was describing to me the importance of the five elements, he emphasized that finding a balance between the dominant element of the medicine/plant (***sman***) and that of the disorder (***nad***) was essential. For example, a medicine with dominant earth element should be given to treat a

disorder with dominant air element; a medicine with dominant water element should treat a disorder with dominant fire element, etc.[16]

Another way that Ma Liming explained balance was in terms of characteristics. The division of disorders according to the humor causing the disorder (category II, E, 1 above) can be further divided up depending on the characteristics associated with the disorders. According to Ma Liming, ***rlung*** disorders can be rough, light, cold, fine, or moving; ***mkhris pa*** disorders can be oily, sharp, hot, light, or malodorous; ***bad kan*** disorders can be oily, cold, heavy/dull, smooth, or firm. When the characteristic of a disorder has been discovered, a medicine of antidotal characteristic should be administered. Hence a rough ***rlung*** disorder should be treated with an oily medicine (see Table 6.4).

Ma Liming used the term ***mtshan nyid*** (characteristics) for disorders (***nad gyi mtshan nyid***). This is a slight alteration from the actual terminology used in the ***Rgyud bzhi*** (Book II, Chapter 5). It is not disorders (***nad***) but the three humors (***nyes pa***) that are described as having these characteristics (***mtshan nyid***).[17] Yet since the three humors can be viewed as disease entities themselves when out of balance (see above), it seems likely

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[16] Although this is a point I did not discuss with any of the Rgyalthang doctors, and I have not seen it explicitly explained in any of the commentaries on Tibetan medicine that I have read, my understanding is that the *dominant* element of a medicine is in part determined by the season when the plant is gathered, in addition to taste and post-digestive taste (see above, Figure 6.3). How the dominant element of a disorder is determined I am not quite clear, although most likely it involves a combination of assessment through the humors, the time of the year, etc. How often an analysis based on *dominant* element is utilized by Tibetan doctors I do not know. Indeed, it could be that Ma Liming's explanation was a heuristic and one that is not often considered in diagnosis and therapeutics.

[17] Another distinction between the list provided by Ma Liming and that in the ***Rgyud bzhi*** is that the latter contains a longer list of characteristics: six for ***rlung***, seven for ***mkhris pa***, and seven for ***bad kan***. Those not listed by Ma Liming include coarse (***sra***) for ***rlung***; purgative (***'khru***) and moist (***gsher***) for ***mkhris pa***; and sticky (***'byar bag can***) for ***bad kan***. See above, page seven, **check** for a list of the characteristics as given in the ***Rgyud bzhi***.

that although the term ***nyes pa*** (humor) is used in the ***Rgyud bzhi***, its meaning is more akin to 'disorder' (***nad***) or 'humor-as-disorder.'[18]

Table 6.4 Balancing characteristics of disorders with potency of medicines. Adapted from Ma Liming's notes (5-10-02).

Disorder type	*If disorder has this characteristic (**msthan nyid**)*	*Treat with medicine of this potency (**nus pa$_2$**)*
rlung	coarse (***rtsub***)	oily (***snum***)
	light (***yang***)	heavy (***lci***)
	cold (***grang***)	hot (***tsha***)
	fine, thin (***phra***)	dull (***rtul***)
	mobile (***g.yo***)	dull (***rtul***)
mkhris pa	oily (***snum***)	coarse (***rtsub***)
	sharp (***rno***)	dull (***rtul***)
	hot (***tsha***)	cool (***bsil***)
	light (***yang***)	heavy (***lci***)
	malodorous (***dri mnam***)	light/coarse (***yang rtsub***)
bad kan	oily (***snum***	coarse (***rtsub***)
	cool (***bsil***)	hot (***tsha***)
	heavy/dull (***lci rtul***)	light/sharp (***yang***)
	smooth (***'jam***)	coarse (***rtsub***)
	firm (***brtan***)	light (***yang***)

[18] See Gyatso (forthcoming) for a discussion of the difficulties of translating ***nyes pa*** as 'humor.' One such difficulty, Gyatso effectively argues, is that it elides the important distinction of ***nyes pa*** as 'disease,' which, as we see in the example I just discussed, is an important conceptualization of ***nyes pa*** for Tibetan doctors. This is of course related to the point made above about distinguishing between the ultimate and proximate causes of disease. In two texts that I purchased in the PRC, I found a similar tendency to use the term 'disorder' (***nad***) rather than 'humor' (***nyes pa***) to discuss these characteristics. The two texts are ***Bod kyi gso ba rig pa, smad cha*** (*Tibetan Medicine*, volume 2) and ***Gso rig snying bsdus skya rengs gsar pa*** (*The New Dawn Outline of Tibetan Medicine*), both recently published by the Tibetan People's Press. I acquired these texts while leaving China in 2002, after having completed my fieldwork in Rgyalthang, and thus I do not know if Ma Liming and other Rgyalthang doctors ever used these books in their studies.

Recall that in Chapter Five of the present work it was stated that plants are not specifically classified according to potency (***nus pa***$_2$). The same might initially be said of disorders: the characteristics of oily, light, cold, etc. are merely listed under each 'humor-as-disorder' in the ***Rgyud bzhi***, Book II, Chapter 5. Yet since these characteristics are listed under the division of "disorders according to the humor causing the disorder" (category II, E, 1 above) one could argue that these characteristics become subdivisions themselves in the context of diagnosis and treatment. In other words, rather than being mere descriptions, these characteristics become types (or, more accurately, subtypes) of disorders, identified as such in order to prescribe the appropriate treatment. Here the conceptual link between disorders and plants/medicines originates with identifying the type of disorder, and then prescribing a medicine/plant with a potency that will balance out the characteristic of the disorder. From the standpoint of diagnosis and treatment, then, such organization makes sense.

As discussed in Chapter Three, however, not all Tibetan doctors in Rgyalthang specialize in diagnosis (看病 *kanbing*). It may be that conceptually, pharmacists such as Ma Liming make the cognitive connection between disorders and plants/medicines in the reverse order of that enacted in diagnosis by starting with materia medica and then conceptualizing the disorder that balances the potency (and other characteristics) of the medicine.

Plants and disorders

What does all of this interest in disorders, particularly their etiology and classification, ultimately lead to in this dissertation? First, it shows that there are important conceptual parallels between plants and disorders. Similar features apply to the classification of plants as well as disorders—features such as characteristics, location, type, and hot or cold nature. What I would like to suggest is that these parallel features indicate a conceptual identification between plants and disorders, a convergence of traits between divergent medical subjects. Such a convergence is marked linguistically through the use of the same terms, such as ***gnas*** (location) and ***rigs*** (kind), to refer to classificatory divisions of both plants and disorders. This conceptual identification is present in part, I submit, because of the underlying unifying principle of the five elements. Since all matter in the universe is composed of these five elements, plants and human bodies can be compared at this level (this is not true of the three humors: plants are not analyzed in terms of humors). It could also be that such identification is useful in memorizing, providing a mnemonic for conceptually retaining information of two disparate subject matters with important connections for diagnosis and treatment.

Second, understanding the classifications of disorders is helpful to Tibetan doctors for prescribing proper treatment. The patient and his/her humoral condition, as manifested in the body, are the starting point in a regimen of treatment; this is known as the first root of Tibetan medicine (see Chapter Five). Diagnosis, which is based on questioning and various modes of examination (analyses of urine, pulse, skin, tongue, etc.), is known as the second root. Therapeutics, which includes the use of

plants/medicines, is the third root. Identifying the type of disorder that a patient is suffering from is important in knowing what sort of therapeutics to administer, since the connection between disorders and medicines is, at least in some instances, overtly mapped as such in the minds of Tibetan doctors. When Ma Liming was writing out the characteristics of disorders, and their antidotal treatment (see Table 6.4), he was clearly reciting them from memory, using the rhythm of verse in particular to recall the items. It may be that because the list of characteristics (which I have argued function as sub-types of disorders) is of a manageable size (fifteen in total),[19] the cognitive strain on memory and recall is kept to a minimum and antidotal medicine, defined in terms of potency, can be quickly and successfully accessed.

To Tibetan doctors, plants are first and foremost medicine. As medicine, they are used for a particular purpose: to cure disorders in human bodies. Even common food and drink can be considered medicine. As is stated in the ***Rgyud bzhi***, Book II, Chapter 19, there is not a substance on earth that is not a type of medicine:

> ***de bas dngos dang sbyar ba'i dbang gyur las/***
> ***sa steng sman min ci yang yod ma yin//***
>
> Therefore, by virtue of nature and combinations, every thing on the earth has medicinal value and there is nothing on the earth which is free from therapeutic efficacy. (Dash 1995: 100)

[19] It is interesting to note that in several examples given by Ma Liming characteristics are combined. For example, under characteristics for ***bad kan*** disorders, heavy (***lci***) and dull (***rtul***) are paired together, as are the antidotal medicinal powers of light (***yang***) and coarse (***rtsub***). Although further investigation would be needed to arrive at a definite conclusion, I suspect that one of the reasons these characteristics are combined is that by doing so, the division of five characteristics per humor-as-disorder remains. As noted above in footnote 12, however, the characteristics as given in the ***Rgyud bzhi*** are not evenly divided into five per humor-as-disorder as Ma Liming has written them. The discrepancy in how Ma Liming wrote them could indicate a simple error, or it could represent how Ma Liming learned (and stored in memory) the characteristics.

The crucial connection between plants and disorders is that one must know which plants to use for which disorders. If the wrong plant is administered, or even if the right plant is administered incorrectly (not prepared properly, mixed with other ineffective ingredients, given at the wrong time of the year, etc.) then illness can increase. It makes sense, then, that Tibetan doctors could benefit tremendously by cognitively organizing their references to plants by the disorders that plants treat. It is a type of shorthand, in many ways. Although taste, aftertaste, and potency are important qualities of medicines and in the end can give information as to which disorders a medicine can treat, the simplest way to mentally map the direct relationship between plants and disorders is to link them through discursive classificatory language, which is based in large part upon the first principle in Tibetan medicine of the five elements.

Recall from Chapter Five that the ***Rgyud bzhi*** classifies plants according to nature/essence (***ngo bo***), which is in part dependent on the composition of the five elements. Recall also that the contemporary text ***Shel gyi Me long*** classifies almost strictly by morphology, with nature/essence (***ngo bo***) becoming an aspect of potency but not explicitly a quality by which materia medica is classified. In Chapter Five I argued that although Rgyalthang doctors appear to utilize the classificatory schema of physical characteristics, this is not the only schema they utilize. In fact, classifications according to disorders surfaced as the most common schema in pile sorts. The centrality of the five elements, therefore, is another way to conceptualize classifications of plants by disorders. And yet it is interesting to reiterate in closing that very little elaboration is given to the discussion of five elements in the medical text the ***Rgyud bzhi***, or any other of the

important medical canons. Further research is needed in order to understand how knowledge about the five elements is explained and discussed in the training of a Tibetan medical doctor. Is this knowledge particular to the training of doctors (or was it historically so in monastic training)? If the five elements are not discussed at length in texts, could the knowledge about these elements be connected more to an oral tradition within Tibetan medicine? Is this knowledge about the world something that is instilled in children from an early age and not necessarily the product of specialized training? These and other questions arise as to the significance of five elements in Tibetan medicine and Tibetan culture at large and would be worthwhile exploring in future studies.

Chapter Seven:
Conclusion

My choice of a title for this work follows the tradition in Tibetan medical texts of employing a plant metaphor. In the way that the medical ***thangkas*** overlay key aspects of medicine on the structure of a tree (see Chapter Five), I would like to suggest a similar technique of overlay can be utilized in imaging the various aspects of medicinal plant classifications interconnected as is the structure of a plant. *Up from the Roots* refers to the continued growth (upward) of the plant, and by implication, the conditions under which the plant actually becomes a plant. It also importantly refers to the roots, as they are the base upon which the life of the plant is built; nutrients from the soil are absorbed through the roots and utilized by the entire plant. Thus the nature of the plant as both grounded through its roots and growing up from them is analogous to what this dissertation is focused on: ethnicity and language can be compared to the roots of the phenomena of plant classifications; the classifications themselves can be likened to a branch of knowledge of the plant. And in the way that the various branches of a plant are interconnected, so are the particular knowledge systems of plants and disorders, as discussed herein. In addition, since the target classificatory domain of analysis in this dissertation is plants, *Up from the Roots* enacts an obvious reference to the topic of plants.

Plant classifications occur in settings with agents. Although the classifications themselves can be abstracted from the settings—made to appear as formal, autonomous systems—crucial significance is lost in the process. This has been the central argument of

this dissertation. In support of this claim, I have examined the socio-cultural setting in which medicinal plant classifications occur among Tibetan doctors in Rgyalthang and have explored how these classifications are connected to other knowledge in the Tibetan medical tradition. The renewed investment in Rgyalthang as a Tibetan place seeps into the consciousness of Tibetan doctors and other residents of the area. In their daily lives they encounter markers of ethnic differences amongst themselves and other local inhabitants (languages, dress, selling of market goods) while around them buildings and other physical structures signal that the area is a Tibetan one. Training, practice, and consumption of Tibetan medicine and services are all ethnically-charged practices in Rgyalthang (and likely other areas of the PRC). The facility where most doctors of Tibetan medicine practice in Rgyalthang, and where most Tibetan residents in the area seek treatment most of the time, is designated as a *Tibetan* Hospital. Because being a Tibetan doctor in large part means utilizing Tibetan language (written and spoken), I have explored the implications of this in terms of what this may indicate about the habitual thinking and classificatory propensities of Rgyalthang doctors.

In regards to the target domain of plant classifications, we have seen that there are important connections between classifications made by Rgyalthang doctors and those of the medical canons. Within the canons themselves, the definitions of higher-level categories have changed through time. Among Rgyalthang doctors, there are important differences in terms of how specific plants are classified, which reflect life experiences and specializations, yet there is also an important agreement: plants can be classified according to the disorders that they treat. I have argued that this commonality may reflect

the extent to which this is the most effective way for Tibetan doctors to cognitively organize plants, since plants are conceptualized first and foremost as materials to be utilized in treating disorders of the body. In examining the important connection between plants and disorders, we have seen that a significant commonality is the five elements. I have suggested that this commonality functions as a type of cognitive anchor and represents an important cosmological ordering in the worldview of Tibetan medicine, which may be extended to Tibetan culture at large.

At this point rather than reiterating the points made above and throughout this dissertation it may be more intriguing to discuss possible future studies that may build on the present work. In particular, an examination of idiosyncratic discourse about and classifications of medicinal plants could be an interesting course of study. Here I would like to briefly mention four examples that emerged during my fieldwork, the first three of which play on an inclination for grouping subjects (in this case, plants for the most part) and then labeling the group with the number of members and the characteristic that they all share. First is the designation of seven plants as "The Seven Sisters" (***bu mo spun bdun***). Once during a conversation I had with Ma Liming he wrote the following, which names seven plants that are classified as "Seven Sisters:"

> ***g.ya' kyi stong zil gangs ga chung/***
> ***hong len tig ta bong nga dkar/***
> ***spang rtsi dang ni bdun po la/***
> ***sngo yi bu mo spun bdun bya//***

The way in which Dr. Ma wrote this has the appearance of being stanzas from a text. Unfortunately I did not ask him if this was the case, and I have not been able to locate

them in any of the canons that I have analyzed in the course of the present work. The names of some of the plants are abbreviated; full names are as follows:

g.ya' kyi ma (*Chrysosplenium sp.*)
stong zil pa (*Corydalis conspera*)
gangs ga chung (*Gentiana sp.*)
hong len (*Lagotis sp.* or *Picrorhiza scrophulariae*)
tig ta (*Swertia chirata*)
bong nga dkar po (*Aconitum sp.*)
spang rtsi do bo (*Pterocephalus hookeri*)

Dr. Ma explained that three of these plants are hot in nature (***g.ya' kyi ma***, ***hong len***, and ***bong nga dkar po***), three are cold in nature (***stong zil pa***, ***gangs ga chung***, and ***tig ta***), while one (***spang rtsi do bo***) is neutral, although he added that on a continuum from hot to cold, these medicines are neither terribly hot nor terribly cold and fall closer to the middle of the continuum. I was able to cross-reference the validity of these particular plants as being called the "Seven Sisters" with three other area doctors, although there was some discrepancy as to the hot or cold natures. When I asked what the significance of these plants being grouped as such was, I was told by Ma Liming and Tashi Tsering that if someone wanted to become a most basic "doctor" but did not have time to study extensively, he/she could just learn these seven plants and be an effective healer. In addition, Xiang Rinpoche mentioned that these are seven plants that can be mixed together in various ways, that they are the most frequently used plants, and that their function is basically the same (they treat disorders that are cold in nature). Why they are labeled "sisters" I could never discover; this significance as well as further investigation into the designation of these plants in particular (such as an analysis as to whether they

are indeed the most frequently used plants, for instance) could yield interesting research on the cultural significance of both these plants and the concept of kinship.

A similar pattern exists in the grouping of "The Three Hots" (***tsha ba gsum***) and "The Six Goods" (***bzang po drug***). In fact, Dr. Ma told me about all of these groupings at the same time as the above "Seven Sisters." "The Three Hots" include ***pho ril*** (*Piper nigrum*), ***pi pi ling*** (*Piper longum*), and ***sman sga*** (*Alpinia officinarum*, *Kaempferia galanga*, or *Zingiber officinale*). "The Six Goods" are ***dza tig*** (*Myristica fragrans*), ***gur gum*** (*Crocus sativus* or *Carthamus tinctorius*), ***sug smel*** (*Elettaria sp.* or *Anomum sp.*), ***ka ko la*** (*Amomum subulatum*), ***cu gang*** (pith of bamboo), and ***li shi*** (*Eugenia aromatica* or *Syzygium aromatica*). Ma Liming explained that all of these plants are hot in nature and therefore treat disorders that are cold in nature. "The Six Goods" are materials that are used frequently and are beneficial to the five organs (heart, liver, kidneys, skin, and lungs); three of them are hot in nature, while three of them are cold, he explained. I do not have a clear sense as to whether these groupings are listed in medical texts or whether they are the product of local medical practice and knowledge. An analysis of the usage of these groupings (in memorizing recipes, among village doctors perhaps) could prove fruitful in furthering the aims of understanding both the context and the focus of medicinal plant classifications.

Finally, the distinction between "male" (***pho***) and "female" (***mo***) plants is something that I have found intriguing before, during, and after my fieldwork. I first encountered it in naming patterns. When I asked doctors in Rgyalthang about it, I received a variety of answers. Ma Liming said that "male" referred to the more potent of

two plant types and "female" to the less potent. Tsedrup Gonpo said that men should use "female" plant varieties and women should use "male" plant varieties to balance out the energies in their bodies. Xiang Rinpoche told me that this distinction is not used very much but that it is somewhat analogous to the 阴阳 *yin/yang* distinction made in Chinese medicine. Yonten Gyatso (my acquaintance in the United States who has proved extremely helpful throughout the course of my research) stated that there is not one set rule for what the male/female distinction indicates, that it varies case by case and is simply a convenient way of distinguishing between two varieties of one plant. Given these various interpretations, and because there seems to be no discussion of such a distinction in the medical canons, it would be interesting to analyze how or if this distinction has an important classificatory function.

All of the above are quite specific examples of assemblages of medicinal plants, and by implication ways of thinking about these plants, that were not incorporated into the present analysis of classifications due in large part to their idiosyncrasies. They were not groupings that most doctors mentioned, they did not emerge in pile sorts nor in general discussions about the classifications of plants. Excluding the male/female distinction, these groupings were brought to my attention one day by one doctor (later I asked other doctors about these assemblages). Yet these groupings may have important cultural bases that would be worthwhile investigating in future research. Furthermore, they may be significant because they use the same principles of grouping and opposition as each other or as those classifications found in the medical canons. In other words, they may be part of the cognitive style that is one aspect of the identity of Tibetan medicine in

Rgyalthang. I am regretful not to have been able to take more full account of them in the present work, which is perhaps why I offer them as future research subjects.

In closing I would like to repeat a point made in Chapter One of this work: the central argument presented here that highlights the importance of context was in large part inspired by the comments and suggestions made to me by the doctors with whom I worked in Rgyalthang. I did not enter the field with such an idea in mind. In fact, although I had a background interest in ethnicity, in the conceptualization of my research project I was quite focused strictly on Tibetan medicinal plant classifications and what they may or may not indicate about universalist tendencies for natural-kind classification. The beauty of fieldwork is in part the infusion of spontaneity and grass-roots developments into the ethnographer's life and research: this is what happened in regards to the issue of context. Thus in many ways this work itself has developed *up from the roots* of my original interest, being influenced by the surrounding environment in which it has grown. Whether the final stage of maturity is a specimen of commendable consequence is in large part up to the reader to decide; certainly it has such significance to its author.

Glossary of Place Names

Chinese names

Yunnan	云南
Kunming	昆明
Lijiang	丽江
Zhongdian	中甸
Diqing	迪庆
Deqin	德钦
Dongwang	东旺
Nixi	尼西
Xiao Zhongdian	小中甸
Diqing Zangzu Zizhi Zhou	迪庆藏族自治州
Weixi Lisu	维西傈僳
Geza	格咱

Tibetan names

Yangthang	Yang thang
Dechen	Bde chen
Chamdo	Chab mdo
Dokar Dzong	Rdo mkhar rdzong
Anu Shok	Anu Shog
Chu nying	Chu snying
Dö	Stod
Ngari Korsum	Mnga' ris skor gsum
Bar	Bar
Ü	Dbus
Tsang	Gtsang
Me	Smad
Do-Kham	Mdo-Khams
Amdo	A mdo
Kham	Khams
Bombor	Spom 'bor sgang
Dechen	Bde chen
Ganze	Dkar mdzes
Terma Rong	Gter ma rong
Nying shar	Nying shar
'Jang	'Jang
Ninong	(spelling uncertain)
Geze	(spelling uncertain)
Bathang	'Ba' thang

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Appendix A: Plants Grouped According to Disorder(s) Treated

From the Rgyud bzhi, Book II, Chapter 21. Listed from left to right in order appearing in text. Latin equivalents are based on the following sources: Dga' ba'i Rdo rje (1995), *Tibetan Medical Thangkas of the Four Medical Tantras* (1988), Tsarong (1994), Dawa (1999), Dash (1995).

Drugs for alleviating heat in the body	**Drugs for alleviating mkhris pa**
ga bur (*Cinnamomum camphora*OR *Delphinium trichorum*) tsan dan dkar po (*Santalum album*) gi wam (bezoar) cu gang (bamboo residue) gur gum (*Crocus sativus* OR *Carthamus tinctorius*) utpala sngon po (*Meconopsis horridula* OR *M. torquata*)	tig ta (*Swertia chirata* OR *Saxifraga sp.*) gser gyi me tog (*Herpetospermum pedunculosum* OR *H. caudigerum* dug mo nyung (*Holarrhena antidysenteriaca*) bong nga dkar po (*Aconitum heterophyllum* OR *A. tanguticum*) rtsa mkhris (*Ixeris gracilis* OR *Saussurea graminea* OR *Sonchus sp.* OR *Cicerbita macrorhiza*) g.ya' ki ma (*Chrysosplenium carnosum* OR *C. nepalense*) kyi lce (*Gentiana sp.* OR *Swertia hookerii*) skyer pa (*Berberis sp.*)
Drugs for treating blood disorders	**Drugs for treating infectious disorders**
tsan dan dmar po (*Santalum album*) mdzo mo (*Caragana gerardiana* OR *C. jubata*) seng ldeng (*Pterocarpus santalinus* OR *Rhamnella gilgitca* OR *Acacia catechu*) hong len (*Lagotis sp.* OR *Picrorhiza scrophulariae*) ba sha ka (*Corydalis impatiens* OR *Justicia adhatoda* OR *Phlogacanthus pubinervius*) skyu ru ra (*Phyllanthus emblica* OR *Crataegus pinnatifida*) re skon (*Corydalis boweri* OR *C. nepalensis*) spang rtsi do bo (*Pterocephalus hookeri* OR *Primula capitata*) btsod (*Rubia cordifolia* OR *R. manjith*) tshos (*Bombax malabaricum*)	gi wam (bezoar) gser gyi me tog (*Herpetospermum caudigerum* OR *H. pedunculosum* OR *Momordica charantia*) bong nga dkar po (*Aconitum heterophyllum* OR *A. tanguticum*) ga dur (*Rhodiola sp.* OR *Bergenia purpuras* OR *Geranium sp.*) byi tsher (*Xanthium strumarium* OR *Morina alba*) de ba (*Arisaema heterophyllum* OR *Mahonia gracilipes*) par pa ta (*Hypecoum leptocarpum* OR *Fumaria parviflora*) khrag rkang (*Thalictrum alpinum* OR *Coptis teeta*)

Drugs for curing poisoning	**Drugs for treating lung disorders**
gla rtsi (deer musk) bong nga dkar (*Aconitum heterophyllum* OR *A. tanguticum*) bong nga ser (*Aconitum naviculare* OR *A. lycoctonum*) bong nga dmar (*Aconitum naviculare* OR *Delphinium densiflorum*) khyung sder dkar (*Uncaria rhynchophylla* OR *Saussurea katochaetoides*) khyung sder smug (*Uncaria rhynchophylla* OR *Saussurea stella*) dpa' bo dkar (*Phytolacca acinosa*) dpa' bo ser (*Phytolacca acinosa*) rtsad (*Pleurospermum sp.*OR *Peucedanum praeruptorum*) rnam par (*Parasenecio sp.*) rgu thub (*Pleurospermum sp.*) stag sha (*Oxytropis sp.* OR *Astralagus sinicus*) ha bo (*Corallodiscus kingianus*) yung pa (*Curcuma longa*) gang ga chung (*Gentiana urnula*) re ral (*Drynaria sp.* OR *Dryopteris sp.* OR *Lepisorus sp.* OR *Polystichum sp.)* 'om bu (*Myricaria sp.)* spang rgyan (*Gentiana sp.*) spang rtsi do bo (*Primula capitata* OR *Pterocephalus hookeri*) se rgod (*Rosa sp.*) skyer pa'i bur shun (*Berberis sp.*)	cu gang (bamboo residue) shing mngar (*Glycyrrhiza uralensis* OR *G. glabra*) rgun 'brum (*Vitis vinifera*) star bu (*Hippophae sp.* OR *Garcinia pedunculata*) ru rta (*Saussurea lappa* OR *S. costus* OR *Vladimiria souliei*) ga dur (*Rhodiola sp.* OR *Bergenia purpuras* OR *Geranium sp.*) a krong (*Arenaria sp.* OR *Artemisia sp.* OR *Thalictrum aguilegifolium* OR) sro lo dkar (*Pegaeophyton scapiflorum* OR *Solms-Laubachia sp.* OR *Cochlearia scapiflora* OR *Cissampelos pareira*)
Drugs for alleviating rlung associated with fever	**Drugs for alleviating bad kan associated with fever**
sle tres (*Tinospora cordifolia* OR *T. sinensis* OR *Stephania sp.*) kaṇḍa ka ri (*Rubus sp.* OR *Solanum xanthocarpum*) a ga ru (*Aquilaria sp.*) go snyod (*Carum carvi*) ru rta (*Saussurea lappa* OR *S. costus* OR *Vladimiria souliei*) gu gul (*Commiphora mukul*) sgog skya (*Allium sativum*)	bse yab (*Carica papaya* OR *Chaenomeles speciosa* OR *Cydonia oblonga*) ma nu (*Inula sp.*) 'u su (*Coriandrum sativum*) star bu (*Hippophae sp.* OR *Garcinia pedunculata*) utpala (*Nymphaea sp.* OR *Meconopsis sp.*) se 'bru (*Punica granatum*) sga skya (*Zingiber officinale* OR *Kaempferia galanga* OR *Hedychium sp.*) skyu ru ra (*Phyllanthus emblica*)

Drugs for alleviating bad kan and rlung	**Drugs for alleviating bad kan and cold**
sman sga (*Zingiber officinale* OR *Kaempferia galanga* OR *Alpinia officinarum*) ga skya (*Zingiber officinale* OR *Kaempferia galanga* OR *Hedychium sp.*) shing kun (*Ferula assa-foetida*) kha ru tshwa (black salt) btsong sgog (*Allium sp.*)	se 'bru (*Punica granatum*) pho ba ris (*Piper nigrum*) pi pi ling (*Piper longum*) sman sga (*Zingiber officinale* OR *Kaempferia galanga* OR *Alpinia officinarum*) tsi tra ka (*Capiscum sp.* OR *Plumbago zeylanica* OR *Piper longum*) ka ko la (*Amomum sabulatum* OR *A. tsao*) sug smel (*Amomum compactum* OR *Elettaria cardamomum*) shing tsha (*Cinnamomum cassia* OR *C. zeylanicum*) 'jam 'bras (*Caesalpinia sp.*) byi tang ga (*Embelia ribes* OR *E. laeta*) da lis (*Rhododendron sp.*) zi ra nag po (*Nigella glandulifera* OR *N. sativa* OR *Bombax malabaricum*) la la phud (*Foeniculum vulgare* OR *Trachyspermum ammi*) dbyi mong (*Clematis sp.* OR *Rhododendron capitalum*) srub ka (*Anemone rivularis* or *A. obtusiloba*) lce tshwa (alum-salt) tsabs ru tshwa (crag halite) rgya tshwa (sea salt) rgyam tshwa (rock salt) rwa tshwa (salt from animal horns) thal tshwa (ash salt)
Drugs for alleviating rlung	**Drugs for treating lymph disorders**
dza ti (Myris*tica fragrans*) bu ram (jaggery) rus (bone)	spos dkar (*Shorea robusta*) thal ka rdo rje (*Cassia tora*) so ma ra dza (*Abelmoschus moschatus* OR *Cannibus sativa* OR *Psoralea corylifolia*) seng ldeng (Rhamn*ella gilgitca* OR *Acacia catechu* OR *Pterocarpus santalinus*) skyer pa (*Berberis sp.*)

Drugs for treating parasitic infestations	**Drugs for treating diarrhea**
gla rtsi (deer musk) shing kun (*Ferula assa-foetida*) sgog skya (*Allium sativum*) ma ru tse (*Butea monosperma* OR *B. frondosa*) thang phrom (*Datura sp.* OR *Nicandra physalodes* OR *Przewalskia tangutica* OR *Scopolia sp.* OR *Anisodus tanguticus*) lang tang tse (*Hyoscyamus niger*) byi tang ga (*Embelia ribes* OR *E. laeta*) dres 'bru (*Iris lactea* OR *I. kemaonensis*) 'bu skyogs (snail) phur thal (*Artemisia sp.*) srin shing (*Daphne tangutica* OR *Jasminum officinalis* OR *J. laurifolium*) dwa ba (*Arisaema sp.*) g.yer ma (*Zanthoxylum bungeanum* OR *Z. nepalense*) spru ma (*Angelica pubescens* OR *Heracleum candicans* OR *H. lallii*)	ka ped (*Lagenaria siceraria*) bil ba (*Aegle marmelos*) da trig (*Rhus sp.* OR *Schisandra chinesis* OR *Woodfordia fruticosa*) mon cha ra (*Quercus sp.*) smag (*Metroxylum sago* OR *Melia azedarach* OR *Spiraea sp.*) tha rams (*Plantago major* OR *P. depressa*) na rams (*Polygonum macrophyllum* OR *Triglochin maritime*) rgya skyegs shing (*Arnebia euchroma* OR *Ficus religiosa*) gtsod khrag (*Rubia cordifolia*) bya rkang (*Delphinium sp.*)
Drugs for treating urinary disorders	**Emetics**
rgya tshwa (sea salt) rgyam tshwa (rock salt) gser gyi bye ma (golden sand) sdig srin (scorpion) sug smel (*Amomum compactum* OR *Elettaria cardamomum*) nyi dga' (*Malva verticillata* OR *Amaranthus mangostanus*)	son cha [or po so cha, as given in the Baidur Sngonpo] (*Randia dumetorum* OR *Aesculus chinensis*) ri sho (*Ligularia sp.*) spyang tsher (*Morina sp.* OR *Cirsium sp.* OR *Carduus acanthoides*) shu dag (*Acorus calamus* OR *A. gramineus*) gser phud (*Trichosanthes cucumeroides* OR *Lagenaria siceraria*) 'bri ta sa 'dzin (*Fragaria sp.* OR *Lagotis brachystachya*) skyi 'bru (*Sophora sp.*) g.ya' kyi (*Chrysosplenium carnosum* OR *C. nepalense*) yungs kar (*Sinapis alba*)

Purgatives

a ru (*Terminalia chebula*)
dan da (*Croton tiglium* OR *Ricinus communis*)
dong ga (*Cassia fistula*)
shri kha ṇa (*Equisetum hiernale* OR *Calotropis gigantean*)
dur byid (*Euphorbia fischeriana* OR *Operculina turpethum*)
thar nu (Euphor*bia cognata* OR *E. nematocypha* OR *E. neriifolia* OR *E. wallichii*)
lcum rtsa (*Rheum officinale* OR *R. palmatum*)
sngon bu (*Cyananthus lobatus* OR *C. sherriffii* OR *Lactuca lessertiana*)
khron bu (*Euphorbia stracheyi* OR *E. sieboldiana*)
tsi stag (*Rheum sp.*)
re lcag (*Stellera chamaejasme*)
chu rtsa (*Rheum embodi* OR *R. speciforme*)

Appendix B: Plants Grouped According to Taste

From the Rgyud bzhi, Book II, Chapter 19. Listed in order appearing in text from left to right. Latin equivalents are based on the following sources: Dga' ba'i Rdo rje (1995), *Tibetan Medical Thangkas of the Four Medical Tantras* (1988), Tsarong (1994), Dawa (1999), Dash (1995).

Drugs with sweet taste	**Drugs with sour taste**
shing mngar (*Glycyrrhiza sp.*) rgun 'brum (*Vitis vinifera*) gur kum [sic] (*Crocus sativa*) cu gang (bamboo residue) dong ga (*Cassia fistula*) ra mnye (*Polygonatum cirrhifolium*) nye shing (*Asparagus sp.*) lca ba (*Angelica sp.* OR *Anthriscus nemorosa*) ka ra (*Catabrosa aquatica* OR *Hippuris vulgaris* OR *Juncus grisbachii*) bu ram (jaggery) sbrang (honey) sha (meat) mar (butter)	se 'bru (*Punica granatum*) star bu (*Hippophae sp.* OR *Garcinia pedunculata*) bse yab (*Carica papaya* OR *Chaenomeles speciosa* OR *Cydonia oblonga*) skyu ru ra (*Phyllanthus emblica*) rgya shug (*Juniperis indica* OR *Sabina przewalskii*) da trig (*Rhus sp.* OR *Schisandra chinesis* OR *Woodfordia fruticosa*) zho (yogurt) dar (butter-milk) chang (alcohol) rtsabs (yeast)
Drugs with saline taste	**Drugs with bitter taste**
rgyam tshwa (rock salt) rgya tshwa (sea salt) myang tshwa (tasting salt) rwa tshwa (mineral salt) kha ru tshwa (black salt) tsabs ru tshwa (crag halite) ze tshwa (nitrum) lba tshwa (iodine salt) mdze tshwa (mirabilite) thal tshwa (ash salt) shing tshwa (tree salt?) ya ba kṣha ra (saltpetre) bul tog (baking soda)	nim pa (*Sophora subprostrata* OR *Azadirachta indica* OR *Sigesbeckia pubescens*) tig ta (*Swertia chirata* OR *Saxifraga sp.*) bong nga dkar po (*Aconitum heterophyllum* OR *A. tanguticum*) hong len (*Lagotis sp.* OR *Picrorhiza scrophulariae*) gser gyi me tog (*Herpetospermum pedunculosum* OR *H. caudigerum*) dug mo nyung (*Holarrhena antidysenteriaca*) gla rtsi (deer musk) mkhris pa skyer pa (*Berberis sp.*) ba sha ka (*Corydalis impatiens* OR *Justicia adhatoda* OR *Phlogacanthus pubinervius*) brag zhun (bitumen) kyi lce (*Gentiana sp.* OR *Swertia hookerii*) re skon (*Corydalis boweri* OR *C. nepalensis*)

Drugs with pungent taste	**Drugs with astringent taste**
na le sham (*Piper nigrum*) bca' sga (*Zingiber officinale*) pi pi ling (*Piper longum*) sga gsher (*Zingiber sp.*) shing kun (*Ferula assa-foetida*) srub ka (*Anemone rivularis* or *A. obtusiloba*) dwa ba (*Arisaema sp.*) btsong (*Allium sp.*) sgog skya (*Allium sativum*)	tsan dan (*Santalum album*) a ru ra (*Terminalia chebula*) ba ru ra (*Terminalia bellirica*) utpala (*Meconopsis integrifolia* OR *M. torquata*) ga dur (*Rhodiola sp.* OR *Bergenia purpuras* OR *Geranium sp.*) smag (*Metroxylum sago* OR *Melia azedarach* OR *Spiraea sp.*) mon cha ra (*Quercus sp.*) 'om bu (*Myricaria sp.)*
Drugs with mixed taste ga bur (*Cinnamomum camphora* OR *Delphinium trichorum*) chu ma tsi (*Polygonum sp.* OR *Rheum nobile* OR *R. pumilum*)	

Appendix C: Information on Dechen Doctors

Plants used for pile sorts with the following doctors were different, in some cases, from those used for pile sorts with Rgyalthang doctors.

Sonam Dorje of Adong village
- Age: 41 (in 2002)
- Had some formal training at monastery in Derong
- Literate
- Results of pile sorts:
  - 1st sort: according to which plants can be mixed together in recipes
  - 2nd sort: by habitat

Rinchen Wangchog of Yunling village
- Age: 55 (in 2002)
- Studied mostly with local doctors in Dechen area; in 1980 studied for one year in Lhasa
- Literate
- Results of pile sorts:
  - Some by habitat, some according to disorders (in same sort)

Ana of Yubeng village
- Age: (uncertain, probably early 50s in 2002)
- Studied with local doctors in Dechen area
- Somewhat literate (difficult to ascertain)
- Results of pile sorts:
  - By habitat

Ngawang Chopel of Ninong village
- Age: 65 (in 2002)
- Educated at the local monastery (in Hongpo) and then at Drepung Monastery in Lhasa
- Literate
- Results of pile sorts:
  - By habitat

Appendix D: Plant Photos

Photos of plants used in pile sorts among Rgyalthang doctors.
Source: Dga' ba'i Rdo rje (1995)

1. ***bya rgod spos*** (*Delphinium sp.)*

2. ***bong dkar*** (*Aconitum sp.*)

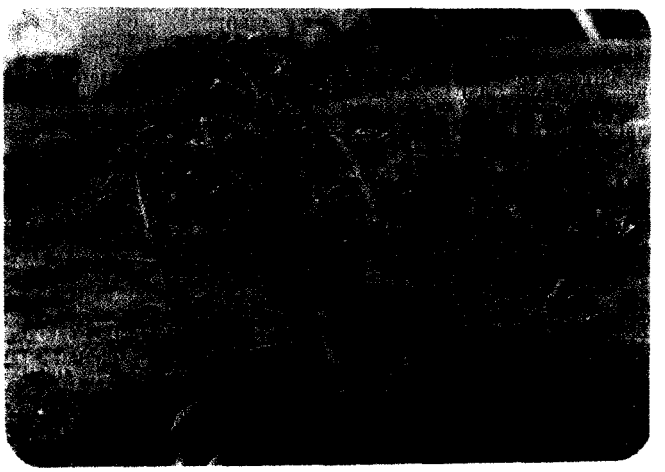
3. ***a ru ra*** (*Terminalia chebula*)

4. ***ba sha ka*** (*Corydalis sp.*)

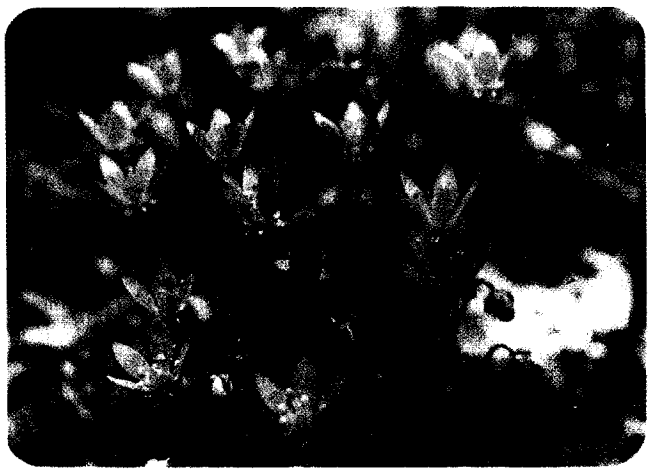
5. ***star bu*** (*Hippophae rhamnoides*)

6. ***pri yang ku*** (*Dracocephalum tanguticum*)

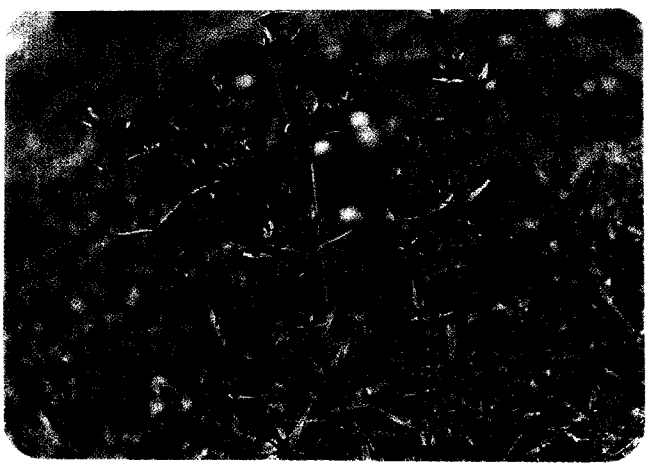
7. ***hong len*** (*Lagotis sp.*)



8. ***'bri mog*** (*Onosma sp.*)



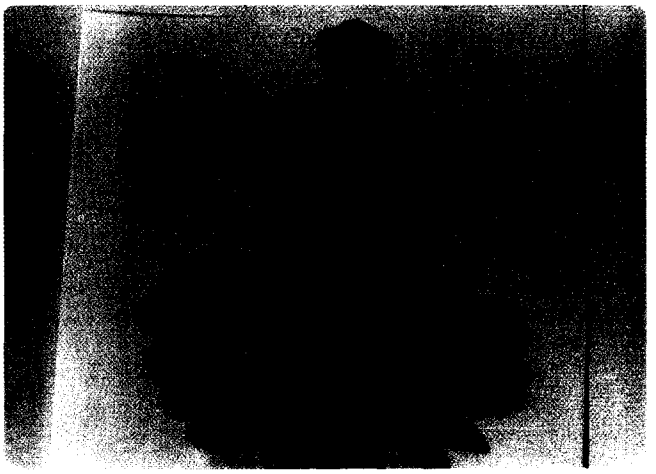
9. ***sum tig*** (*Saxifraga sp.*)



10. ***zangs tig*** (*Swertia sp.*)

11. ***ma nu*** (*Inula racemosa*)

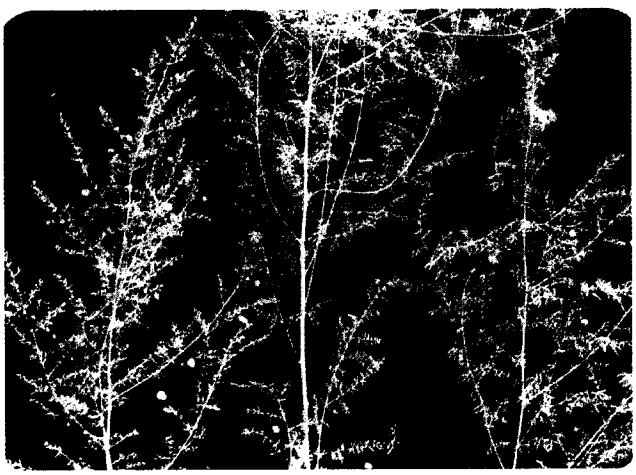
12. ***ru rta*** (*Vladimiri sp.*)



13. ***utpala sngon po*** (*Meconopsis torquata*)

14. ***g.ya' kyi ma*** (*Chrysosplenium carnosum*)

15. ***lcags tig*** (*Halenia elliptica*)



16. ***nye shing*** (*Asparagus sp.*)

17. ***spang rtsi do bo*** (*Pterocephalus hookeri*)

18. ***ba ru ra*** (*Terminalia bellirica*)

19. ***skyu ru ra*** (*Phyllanthus emblica*)

Vita

Denise M. Glover was born in suburban New York and came of age in the woods of rural Maine. Her early experiences of travel and appreciation for different lifeways, as cultivated largely by her mother, lead her to the field of anthropology. She received a Bachelor of Arts degree in music from Bard College in New York in 1985 and a Master of Arts in Asian Studies at the University of Hawai'i in 1993. In 2005 she earned a Doctor of Philosophy in Anthropology at the University of Washington. She currently resides in Kent, Washington with her children August and Saveria, a small flock of parrots, a restless cat, and her husband, Glen Avantaggio.