1996

Dissertation Abstracts

Follow this and additional works at: https://digitalcommons.macalester.edu/himalaya

Recommended Citation
Available at: https://digitalcommons.macalester.edu/himalaya/vol16/iss1/19
Social Science and Humanities


This dissertation investigates the multiple dimensions of locality and vocality in a Himalayan village in Ladakh, North India. Ladakh is a frontier region, bordering Pakistan and Chinese-occupied Tibet. Academic constructions of Ladakh have propagated its marginalization by portraying it as a static repository of Tibetan culture or as a backward area situated at the outskirts of Indian Kashmir. By exploring the spatial categories of identity-formation (inside and outside, center and periphery, high and low) in the context of ritual space, particularly in weddings and funerals, this work illustrates the strategies and sentiments that come into play as people on the border constitute themselves as both centered and decentered subjects, participating actively in political dialogues and challenging the dualistic constructions of "traditional" and "modern".

In Ladakh, knowledge of one's place in society is intimately linked to knowing the physical and ideological boundaries of one's world. Personhood is constituted through a process of dwelling-in-the-world, through an intersubjective engagement with other people and other places. It is argued that the spatial and temporal position of the author must be examined together with that of the inhabitants of the village. In this way, this dissertation attempts to situate the anthropology of Ladakh within a reflexive and praxis-oriented anthropology of place which recognizes that histories are contested, meanings are conflicting, social practices are negotiated.


The central argument of this dissertation is that an analysis of changing marriage practices in a kinship-based Magar village in western Nepal serves as a window onto a broader social transformation currently underway in the community. Villagers are less and less likely to attribute events to fate, or karma, instead attributing them to the actions of individuals. Furthermore, they are increasingly emphasizing the importance of obtaining the "consent" of both parties to a marriage. What is so striking about this trend is the way in which "consent", particularly women's "consent", is thought to be obtainable only as a result of coercion. In my analysis of the shift away from arranged marriage and capture marriage toward elopement, I explore various intersections of agency, resistance, accommodation, complicity, and domination.

Drawing on practice theory and cultural Marxism, this dissertation situates village marriage practices within a broader historical, political, and structural context while paying special attention to gender relations and the Magar practice of preferential matrilateral cross-cousin marriage. I argue that as villagers increasingly choose their own spouses, sometimes marrying the "wrong" kind of cross-cousin, they shake the foundations of this kinship-based society, thereby rupturing the social fabric.

For each of the three types of marriage I provide case studies and a sociocultural and linguistic discussion of villagers' narratives of marriage. I explore villagers' conceptions of their own agency as they describe arranged marriage (the hegemonic form of marriage in the village, comprising two-thirds of all first marriages), capture marriage (a rare but still extant form of marriage), and elopement (an increasingly popular alternative to other types of marriage). The new discourse of love letters receives attention in the
dissertation as it illustrates the changing meanings and values villagers associate with marriage. Relying on both qualitative and quantitative data and focusing on the intersecting elements of consent and coercion, this dissertation examines the implications of a shift in marriage practices for gender dynamics and relations of power in the village as a whole.


Micro hydro power schemes are characterised by a power output of less than 100kW. They have been identified as a means of providing mechanical and electrical power for isolated communities in developing countries, with a view to increasing the rate of development in such communities. Nepal is one of the poorest countries of the world and, apart from hydro power, has little in the way of natural resources which it can use as a basis for development. It is essential, therefore, that this hydro resource is exploited efficiently. Large scale hydro power schemes benefit the country as a whole, but bring few benefits to the rural poor. Micro hydro power schemes supplying mechanical and electrical power can, however, have an immediate impact at this level.

Small scale engineering projects in developing countries are constrained by factors which are not present in the developed world, such as lack of infrastructure, transport problems, communications problems and meagre materials and skills resources. Experiential knowledge is therefore as important as professional knowledge in the design and installation of micro hydro power schemes. When personnel leave the organisations which are involved in micro hydro power, their skills are lost to the field. Expert systems and Decision Support Software (DSS) provide a method for capturing their experiential knowledge.

The MICADO system of DSS is a software tool created to support engineers designing micro hydro power schemes and others who may be assessing the viability of such schemes. The software is intended for use in Nepal, but the evaluation routines can be applied to micro hydro power schemes elsewhere in the world. MICADO was programmed to specifications given by its user group in Nepal, and was constrained to run on hardware which was already available to them. It is configured on the commercially available CRYSTAL expert system builder, and runs on IBM PCs and compatibles.


Balti, Purik, and Ladakhi are the westernmost modern spoken varieties of the Tibetan language. Using data from these western varieties, a Proto-Western Tibetan phonemic system has been reconstructed by the comparative method. Each of the reconstructed proto phonemes is listed with its reflexes in each of the modern daughter varieties, and examples are given for each reflex. The sound change rules necessary to derive the various reflexes are then displayed and explained. The rules are categorized according to the type of phonological process involved, and possible motivations for each of the various kinds of sound changes are discussed. Special emphasis is given to the prominent role of the proto phoneme *r in many of the sound changes. The phonemic inventories of each of the daughter varieties are compared with that of the proto language, revealing that Eastern Balti is the most conservative of the modern varieties studied.


The first part of this thesis is a study of our French translation of an excerpt of Journey Without God, a contemporary Buddhist text published in 1981.

First, we present a short biography of the author, Vidyadhara Chögyam Trungpa, Rinpoche, Tibetan tantric master. Then we define the topic of the book translated: the Tibetan Buddhist tantra. The other existing French translations of Trungpa's books are briefly examined. In the course of this examination certain fundamental principles are stressed. We emphasise in particular the importance of taking into account the oral nature of Trungpa's teachings and the type of preparation and conditions necessary for the translation of contemporary Buddhist masters' works from English into French. We then describe our own approach to the translation and present a detailed analysis of the interpretative process required in order to reformulate a text which aims at establishing a direct and immediate link with the reader, despite the esoteric dimension of the topic dealt with. Lastly, we examine several terminology problems posed by the text.

The second part of the thesis is the translation of the introduction and the first eight chapters of Journey Without God.


This dissertation is a qualitative study of the public debate on the development of Nepal during 1990-1991.
By using the public philosophy approach developed by Professor Robert N. Bellah and his colleagues, it explains the bearing of public debate on development; the nature of public debate on development issues; formal and informal forums of public debate; the process whereby the population at large is prevented from having input in the direction that social change and development will take; the meaning of public involvement through public debate to the public and elites; and the type of fundamental conceptions of individual and society ordinary citizens have in the process of the development of Nepal.

The first chapter provides an overview of modernization and dependency theories and shows that public debate is a missing element in both theories. The second chapter provides an overview of Nepalese society and economy.

The three empirical chapters on public debate on development capture the multiple voices of Nepalese society about their philosophies of development expressed during 1990-1991. The third chapter on the people's movement analyzes the levels of participation, causes, development issues raised by the Nepalese public, means used to express the public voice, rulers' interpretation of the movement, and main development issues the public debated during March-April, 1990.

The fourth chapter analyzes the processes of public discussion on the draft constitution and the main development issues raised by the Constitution Recommendations Commission and the people. It also analyzes the directive principles and policies of the state and fundamental rights, and implications of the 1990 Constitution for the development of the country.

The fifth chapter analyzes the development issues debated by the Nepalese public during the general election of May, 1991. Three effective paths to development, the democratic socialist, the communist/republican, and federalist, are analyzed. Development issues raised by the political parties and Nepalese people are discussed.

In the concluding chapter, it is argued that the popular conception of "politics precedes development" has proved to be a mirage. Also, several problems and issues are identified as immediate obstacles to the expansion of public participation in the development of Nepal.


This research examines the deforesting behavior of smallholder agriculturalists in Nepal. The thesis is organized in six chapters. Chapter one overviews the recent literature on deforestation in Nepal, and highlights the debate regarding the causes of deforestation in that country. The chapter also discusses the literature on property rights, including recent work which suggests that resource degradation can occur under a variety of regimes.

Chapter two presents a behavioral model of a representative household, which takes a distorted property rights regime as given, and incorporates several potential policy instruments for stemming deforestation. The model is fundamentally one of household labor supply, and is first discussed in implicit form. A model of forest growth is then presented and linked to an explicit form solution of the behavioral model.

Chapter three examines the comparative statics of the model to evaluate how it responds to changes in exogenous variables.

Chapter four presents the empirical analysis component of the thesis. A cross-section econometric model is proposed, and then estimated using 1982-83 household level data from Nepal. Several potential insights regarding Nepali households' interactions with forests are derived and discussed.

In chapter five dynamic simulations are presented which predict time paths of forest stocks and endogenous variables under a variety of conditions. Time paths of fuelwood collections are predicted to be unresponsive to all changes in policy variables except those which stimulate switching to alternative fuels.

Increased wages for part of a village cause the privileged group to withdraw from animal raising and agriculture, and to collect more fuelwood. Overall, forest stocks are predicted to improve with higher wages, benefiting those who remain dependent on animal raising and agriculture.

A reduction in prices of alternative fuels is expected to cause the time path of wood biomass stocks to become increasing, rather than decreasing, as was predicted for all other cases.

Chapter six presents a critique of the research and suggests directions for future investigations. Policy implications of the research results are also discussed.

(Abstract shortened by UMI.)


This study presents a linguistic analysis of Lhasa Tibetan narratives viewed from the perspective of discourse: the most natural unit that forms a meaningful whole.

This study starts with a brief grammatical sketch of Lhasa Tibetan which gives a basic knowledge to study
the discourse grammar of the language. Then it proceeds to the examination of discourse structure; an analysis of the syntagmatic structure of each selected text in respect to both surface and plot (nitional) levels; an analysis of features of participant reference as marked by nouns, pronouns, and anaphoric zero; and an analysis of the relative structural importance of information focusing on certain features of verbs.

The theoretical basis for this study is the general framework developed by Longacre.


Although past interest has focused on wood-fuel use by households in developing countries, this thesis proposes that the industrial sector can be just as great a cause of forest depletion. Historical evidence gleaned from an extensive literature review shows that in both western and eastern civilizations, the development of industries dependent on wood fuel in the absence of controlled forest exploitation has led invariably to the depletion of forest resources, degradation of the environment and future deprivation in communities dependent directly or indirectly on these resources.

A field survey of some 116 wood-fueled firms in seven areas in Nepal shows that the detrimental effects of wood-fueled industry continue today along historical patterns. Deteriorating forest conditions due to overcutting are indicated in the market place by increasing scarcity, rising price and declining quality, in terms of species, form and moisture content of fuelwood. Analysis of the response of the various sectors to deteriorating wood-fuel supply conditions revealed a lack of coordination between producers and consumers in addressing this issue.

In the positive response of various firms, including fuel conservation, fuel substitution, modification of equipment, introduction of new technology and expansion of operations to include the co-production of fuel-wood, a pattern was identified which forms the basis of an analytical framework to assist planners in developing policies and programs to mitigate the effects of industrial wood-fuel use targeted to the specific response capabilities of the industries concerned. The framework enables planners to analyze existing and proposed wood-fueled industries in order to design appropriate policies for improving the efficiency of wood-fuel use and addressing the needs of this sector over the long term with the aim of promoting a sound environment as the basis for sustainable development.


Fezas, Jean. Le droit népalais de la succession et ses sources classiques. [French: The Nepalese Right of Succession and Its Classical Sources.] Paris III (Sorbonne-Nouvelle), 1985 (Doctorat de 3e cycle ès études indiennes). A copy is available at the Bibliothèque de la Sorbonne, 47 rue des Ecoles, 75230 Paris Cedex 05, France.

On the influence of Hindu law upon Nepali law.


[French: A Case of Puerperal Psychosis in a Nepalese Woman: A Diagnostic Discussion.]


A personal account of Halbwach's experiences in the 1980s.


The thesis is an anthropological study of the Lohorung Rai tribe of East Nepal, based on twenty months of fieldwork. Its major theme is their conceptual system and in particular their religious and psychological concepts. The intention throughout has been to look at concepts, both verbal and non-verbal, in the light of my own developing knowledge of the
Lohorung conceptual framework. The thesis is divided into seven chapters.

The introductory chapter provides a background description, including an account of first impressions and fieldwork experiences, as well as the theoretical perspective of the thesis, a delineation of Lohorung households, and the significance of the domestic group. Since the superhuman beings permeate Lohorung everyday life, and provide them with a theory of causation, chapter two describes Lohorung relations with the superhuman world. For the Lohorung it is only by ritual action that they can retain the original order of their society which is constantly in need of renewal.

Chapter three, therefore, looks at the Lohorung 'charter for living', the pe•lam o’‘ mundum, a body of oral literature that includes the mythicohistorical stories and ritual texts that can bring back order and reinvigorate both their society and individuals. One of the most important rituals for achieving this renewal is nuagi.. This ritual is described in detail in chapter four. Chapter four also investigates the religious and psychological significance of the house, the main ritual unit in Lohorung culture and begins to throw light on the complex concept of saya, that is essential to an understanding of Lohorung ideas about the nature of Man and personhood.

In chapter five the most important concepts relating to the Lohorung understanding of personhood, namely niwa, saya and lawa, are examined in terms of their significance in the cycle of life. This chapter underlines one of the main conclusions of the thesis: that an understanding of Lohorung religious and psychological concepts are essential to a wider appreciation of Lohorung society, such as their type of marriage and indigenous political system.


Focuses on social aspects of forestry in Nepal and on the social conditions of rural women there.


This dissertation examines and analyzes the differences between a public and a private school in Nepal. The study looks at different factors such as school management and operation, school environment, external interference in school business, student discipline and behavior, teacher qualification and training and school curriculum. The study examines them as factors contributing to the school's success and effectiveness.

The study explores how the two schools are managed and operated, the curriculums that are taught, and the learning environment that existed. The study describes how students, teachers, school Headmaster, Principal, and parents felt about the public and the private school.

A qualitative case study method was used as the primary research methodology for this study. The main source of data came from in-depth interviews of 16 participants who were students, teachers, school Headmaster, Principal, and parents of the two schools. Additional data was gathered from the researcher's journal based on school observations, government statistical reports, and school documents.

The findings indicate that the school Headmaster needs autonomy and decision making freedom to manage the school effectively. A positive learning environment is necessary for a school to succeed and outside interference and presence of non-educational activities such as politics is destructive to the school environment. The study suggests that the government and the community must clearly define and understand their role in the school, so that their involvement helps rather than interferes in the school.

The study indicates that the quality of education in the private school was better than the one in the public school. Although not significantly different, the public school teachers had more qualifications and training than the private school teachers. However, more supplemental and advanced curricula was taught in the private school. Despite the high tuition and fees, the parents preferred to send their children to private schools.


Two relay cropping experiments with maize (Zea mays L.) and finger millet (Eleusine coracana Gaertn.) were conducted near Pakhribas Agricultural Centre, Dhanakuta, Nepal during 1990 and 1991.

The objective of the study was to gain a better understanding of the maize/millet system by examining the possibilities of managing maize e.g. by using different varieties or leaf stripping to reduce its competitive effect on millet; and to make millet more competitive e.g. by increasing its plant population to minimise the suppression on its yields.

Arun-2 an early and short maize with low LAI provided less competition to millet by allowing more light and by the reduction in overlapping period in comparison to Hetauda composite which was tall, late
Consequently, millet yields were higher under Arun-2 than under Hetauda composite. On the other hand, Hetauda composite yielded more than Arun-2 and the combined mixture yields and monetary advantage were higher under Hetauda composite relay than under Arun-2 relay. These two varieties of maize could serve two different objectives of the farmers: if higher yields irrespective of crop species were desired by farmers, millet relay under Hetauda composite was better than Arun-2 while the opposite was true if higher millet yields with reasonable maize yields were in the interest of the farmers.

Earlier transplanted millet produced higher than the later planted ones because of the possible longer available growing period and also because it escaped from cold injury. Since earlier planted millet could be harvested early it left enough time to grow a winter crop like oilseed mustard.

In the second experiment, higher millet population increased the competitive ability of millet and produced more millet yield than having wider maize rows or stripping maize leaves to allow more light to millet.

(D177,300)


This study examines the washback effect of a final examination. Despite the general criticisms of a final examination for its negative influence on education, no empirical evidence was noted in the existing literature; rather some evidence for positive washback was found.

The study was based on the assumption that the detrimental effect of a final exam is not inherent; whether the washback is negative or positive is dependent on the design of the exam. Furthermore, the power that the exam has to influence teaching and learning, if exploited properly, can make it work as an instrument for educational change.

The context of the study was English Language Teaching and Testing in school in Nepal. The washback effect of the School Leaving Certificate English exam, an exit exam based on prescribed textbooks in terms of its content and discrete-point approach in terms of its format, was examined. A new exam of reading, grammar, note-taking and writing based on the course objectives of the SLC English course in terms of its content, and integrative-communicative approach in terms of its format was designed to use as the criterion measure of the English proficiency of the students.

The new exam was administered to the school leavers and the students of the previous year. The performance of the school leavers on the new exam was compared with their performance on the SLC English exam, and with the performance of the students of the previous year on the new exam.

The results indicate that the SLC English exam had a negative washback on the teaching and learning of the SLC English course because it failed to allow the students and the teachers to work for the course objectives of the SLC English. It was concluded that washback is an inherent quality of a final exam; people whose future is affected by exam-results work for the exam regardless of the quality of the exam. Whether the washback is negative or positive is dependent on what the exam measures; if it is congruent with the sentiment and the purposes of the course objective, it can achieve the beneficial washback; if not it is bound to produce the harmful washback. Innovation through the former type of exam would lead the teaching for the exam to be in accordance with it.

The implications for language testing in general, and the Nepalese ELT situation in particular are presented. It is suggested that the SLC English exam should be replaced by an exam similar to the one used in order to bring about a change in the teaching of the SLC English course. Recommendations for further research are made.


The objective of the study was to develop a conceptual framework for nonformal adult education that has potential to help illiterate people, such as the adult population in Nepal, to improve their living conditions.
Ideas for the conceptual framework were generated through analytical/critical reviews of literature that discussed four different theoretical perspectives on nonformal adult education, through case studies of nonformal education in three different contexts and through a field survey that was conducted in Nepal. The four perspectives include the radical emancipatory, the liberal emancipatory, the human resource development and the rural development perspectives, respectively. For the three case studies, experiences with nonformal adult education in Bangladesh, Tanzania and Nicaragua were reviewed. The field study in Nepal focused on soliciting perceptions on nonformal adult education from policy makers, individuals associated with program implementation, facilitators and participants.

Data collected from different sources and review of some relevant literature provided the basis for proposing a conceptual framework for the further development of nonformal adult education. Empowerment of the poor literate population of Nepal is the major focus of this conceptual framework. Nonformal adult education, as an empowering process, has potential to promote mental and manual skills and capabilities for making the future of poverty stricken people hopeful and humane. The meaning of empowerment, through nonformal adult education as discussed in this thesis, provides a sense of generating various abilities among people and services.

The importance of field testing the proposed framework necessitated giving attention to a planning process. Various aspects of planning such as needs assessment, objectives, structures, resources, personnel, training and evaluation were considered important for the implementation of the framework. Results of the study have implications for the further development of the concept of nonformal education and for research.


An anthropological and epidemiological examination of the risks for diarrheal disease in a sample of 349 young children. Laston’s subjects were from high caste (Brahmin and Chetri) households located in three panchayats of Katunje, Dadhikot and Gundu in Southern Bhaktapur District of the Kathmandu Valley.


An ethnographic case study of a Women-in-Development project that sought to improve the lives of poor village women by involving them in such income-generating activities as the production of milk.


Describes and evaluates the creation and evaluation of a model for the education of expatriate school children with reference to the teaching of expatriates in Nepal.


An anthropological exploration of the uses of everyday speech, conversation, anecdotes, multiple versions of stories and the circulation of information within the context of marriage negotiations among high-caste Hindus in Kathmandu.

This dissertation aims at analyzing differential fertility response by the survival status of children in Nepal.

The fertility response that we are attempting to measure consists of (a) physiological response: which mainly derives from breast-feeding; (b) insurance effect: where mothers have more children than they actually desire, in anticipation that some of their children may die; and (c) replacement effect: where mothers have the exact number of children they desire and if any child dies then an attempt is made to replace that child. In this analysis we attempt to separate physiological response from insurance replacement effect with breast-feeding as one of the control variables in the model.

For this analysis we use data from Nepal Fertility and Family Planning Survey 1986. We first employ conventional life table methodology to measure subsequent fertility response by the survival status of the index child. Our main finding is that both the level and tempo of fertility is higher when the index child is dead. Similar fertility responses were observed when we controlled for different socio-economic variables (one variable at a time) such as urban/rural, gender of the index child, geographic region of residence and parity. Next we attempt to indirectly control for the physiological effect due to breast-feeding by examining fertility response 18 months (estimated mean duration of postpartum infecundity for Nepal) after the birth of the index child. Our analysis suggests that both the tempo and level of fertility response is high even when the physiological effect is indirectly controlled, suggesting the presence of a behavioral response to the child’s survival.

For simultaneous control of different socioeconomic as well as demographic variables we employ Cox proportional hazard regression model. Our results indicate that: (a) physiological effect is a powerful determinant of subsequent fertility and (b) the behavioral response (insurance/replacement) to the death of the children is present, when one observes a higher level and tempo of fertility among women who lost their children.

Buddhist institutions often form vast networks overlaying the ethnic and political divisions of South and Central Asia. This dissertation considers how such a transnational network expands historically—how it "feeds on" centers of more intensive power such as chiefdoms and states even as it transcends their boundaries and lives on after they are gone. The "shock troops" of this process, it is argued, are certain strategically situated *travelers*—especially religious teachers and missionaries—who develop wide personal networks yet remain detached from local political and kinship institutions. When such networks are infused with the patronage of a king or other central authority, new religious institutions linking local communities are often founded. This may be an important mechanism promoting social and economic integration of large geographic areas in "pre-modern" settings.

Much of the history of modern Bhutan, Sikkim, and Nepal may be understood as a series of "structured conjunctures" between Hindu kings and Buddhist lamas. Between 1600 and 1900, two distinct expansionist systems—one Hindu, the other Buddhist—met on the southern flank of the Himalayas. Hindu expansion in the Himalayas is argued to depend on military conquest, with the Brahman often acting as an intelligence agent. Buddhist expansion, on the other hands, depends more on the conversion of foreign rulers. The present work explores the founding of religious kingdoms in light of the foregoing model, with special reference to the Tibetan Buddhist enclaves of the Kathmandu Valley.

Beginning in the early seventeenth century, Hindu kings attempted to expand into Tibet, without success. About the same time, however, Buddhist lamas were able to found Lamaist kingdoms in Bhutan and Sikkim by converting the local tribal leaders and warlords. Later, Hindu kings would bestow patronage upon Buddhist lamas in an effort to gain influence over frontier regions that could not be conquered militarily. Ethnographic research in the Kathmandu Valley suggests that the key religious and political institutions of Tibetan Buddhist ethnic communities were created through patronage from Hindu kings.

Rogers, Carl Stanley. *The conceptual background to a Tibetan Buddhist meditational text of the Sa.skya tradition*.


This dissertation is a study of the Tibetan Buddhist text, *sNang.qsum mdzes.par Byed.pa'i rGyan* (The Ornament which Beautifies the Three Visions), by the Sa.skya Lama, Ngor.chen dKon.mChog Lhun.grub.

In the introductory chapter, the thesis identifies the principal themes which tacitly inform the meditation practices contained in the text and, in Chapter Two it searches for their Indian Buddhist antecedents.

In Chapter Three, the thesis examines the text in some detail, by means of a digest and commentary. The commentary draws attention, where relevant, to the way in which the major themes identified in Chapter One and Two pervade the teaching and meditation instruction given.

The thesis ends with a review of the points covered in its course and discusses the relevance of the understanding of reality in terms described by the Sa.skya school to the study of Mahayana Buddhism.

Appendix I to the thesis is a copy of the Tibetan text of the *sNang.qsum mdzes.par Byed.pa'i rGyan*.

Appendix 2 is my translation of a text by Ngag.dbang Legs.pa (1864-1941), which expresses the principal elements of the Sa.skya view in a concise and clear form, thus shedding further light on the themes of the thesis.

Appendix 3 is a copy of a manuscript of Ngag.dbang Legs.pa's work, *Khor. 'das bdyer.med qui Ita.ba'i smnying po bsdus.pa skal bzang gi bdud.rtsi*, translated in Appendix 2.


This dissertation is a descriptive, comparative, and historical study of the finite verb morphology in two branches of Tibeto-Kinnauri: West Himalayish and Tibetan. It has three goals. The first goal is to present a descriptive and comparative description of the finite verb morphology in West Himalayish. Kinnauri, PaTani, Gahri, Darmiya, Tinani and Rangpa are examined for this purpose. Data and analysis of Kinnauri and PaTani data are my own. Tinani, Gahri
and Darmiya data are from secondary sources, but the interpretation of the data is mine, except when indicated.

The second goal is to reconstruct a preliminary schema of the proto-West Himalayish verb agreement system. It is suggested here that proto-West Himalayish had a split-ergative agreement system. Non-cognate morphology in these languages show at least three cycles of verb agreement systems, illustrating the various paths these languages are taking in their development of newer verb morphology.

The third goal is to examine the development of the modern finite verb morphology in Lhasa Tibetan, in particular the development of aspect markers: -pa and -gi as perfective and nonperfective markers, respectively, and evidential markers: yin and 'dug. Examination of Tibetan texts representing various time periods suggest that the perfective marker -pa is a reanalysis of the nominalizer pa when it precedes evidential markers, and the imperfective marker -gi is a reanalysis of a nonfinal marker: cing which indicates temporal overlap. Yin and 'dug also function as copulas in Lhasa Tibetan. As a consequence of these reanalyses, the structural configuration of a clause (with a nominalized argument) is also getting reanalyzed in standard Lhasa. Data presented in this dissertation raises interesting questions concerning the motivation and mechanisms of grammaticalization and syntactic change are also considered in this dissertation.


Investigates the linguistic behavior of two Newar high castes (Shresthas and Udas) living in Kathmandu with respect to their use of the ethnic language Newar and the national language Nepali.


A comparative, longitudinal study was conducted in Nepal with premenopausal Sherpa women living at high and low altitudes. The purpose of the study was to examine the effects of two environmental stressors, hypoxia (oxygen deprivation) and nutrition, on pregnancy outcome. Additionally, information was collected for nonpregnant women to examine the difference between the high and low altitude samples in terms of hemoglobin concentration levels, various anthropometric measures, body composition, and energy consumption and expenditures. This information will provide the scientific community with additional information on the issue of variation of high altitude populations.

Results of the study showed that Sherpas appear to be well adapted to their environment. No significant differences were found between the low and high altitude samples in terms of pregnancy outcomes; birthweights of infants were similar. Trends could be seen among the pregnant sample, even though sample sizes were small. The high altitude sample were taller, weighed more prior to pregnancy, consumed more calories and gained more weight during pregnancy. It appears that those factors nullified the disadvantage of living in a hypoxic environment.

The findings for the nonpregnant sample were especially interesting as they revealed that Sherpas exhibit unusually low hemoglobin concentration levels for a high altitude population. While differences were seen in hemoglobin concentration levels between the high and low altitude samples, levels fell into the range normally seen for low altitude populations. Dietary analysis found both samples to consume adequate amounts of iron and the incidence of anemia related pathologies was very low.

Lastly, with increased access to a variety of foods, and a dramatic decrease in activity levels, the low altitude Sherpas have become heavier than their high altitude counterparts. Sherpas, like many populations worldwide, have increased their mean body weights as a result of being exposed to urbanization.


During the past few decades a number of initiatives have been undertaken both inside and outside the UN to establish Zones of Peace (ZOP) in various parts of the globe. Currently, there are seven declarations and proposals for ZOP relative to the Indian Ocean, the South Atlantic, the South Pacific, the Mediterranean, Southeast Asia, Nepal and Tibet. On the basis of the areas they cover and the legal issues they raise, the first
four zones are termed in this thesis 'maritime zones of peace' and the remaining three 'land zones of peace'. The State practice relative to such zones demonstrates a significant move towards the acceptance of a variety of methods of creating different regimes with differing legal content. Yet there has been very little academic discussion on this subject from a legal point of view. Therefore, this thesis is designed to examine the legal aspects of the concept of ZOP.

This study begins by examining the State practice on maritime ZOP and looks at whether the concept of maritime ZOP is consistent with the existing principles of international law, especially the freedom of the seas, and whether the State practice on ZOP has crystallised into a rule of customary international law. In doing so, it will assess the legal status of the UN General Assembly declarations on maritime ZOP. This is followed by an examination of the proposals for land ZOP. The study then assesses the extent to which the principles underlying the traditional concepts such as neutrality or demilitarised zones, as well as similar emerging principles, could be applied to the concept of ZOP.


Identified key factors related to the participation of women in Nepal's Radio Education Teachers Training Project and its Primary Education Project, designed interventions to increase their participation in those projects, and devised a methodology for investigating issues related to women and education that could be used in other countries.


The myth of bilingualism suggests that everyone in Nepal is fluent in Nepali; however, this study shows large segments of the Tibeto-Burman population are only minimally proficient in speaking and understanding Nepali.

This thesis presents data on bilingual proficiency collected in 1992 and 1993 from speakers in seven different Tibeto-Burman ethnolinguistic groups in rural Nepal. Over five hundred subjects were tested, using sentence repetition tests. These data are correlated with demographic variables to show the significant indicators of Nepali language proficiency among the target-populations.

The results show that only well-educated subjects are comparably proficient with mother-tongue Nepali speakers. Because the same demographic factors in different areas produce parallel patterns of second-language proficiency, the most significant factors can comprise a model to substantially predict Nepali bilingualism. Based on extensive field data, these results provide a powerful tool for language policy and planning in Nepal.


As English is the language of educational instruction in Bhutan, it is crucial that children be fluent and comfortable in the language. But at present children in Bhutan learn English by using a series of what are known as Druk readers. Western teachers would recognize them immediately as the sort of formalistic basal reader long out of fashion here. Wordsworth, Tennyson and Christina Rossetti share space with Snow White and Greek myths. Comprehension test questions of the most banal unanswerable sort follow the stories.

Children are doubly frustrated: both the cultural values in the text, and the mode of discourse remain alien. As people in the Druk reader stories behave in apparently incomprehensible ways, the implicit value systems remain puzzling. Even the correct answers to the questions after each story only increase its opacity.

In this thesis, I am proposing an alternative form of English language instruction. Traditional Bhutanese folktales, especially Jataka tales, could be used instead of Western stories to teach reading. The use of these tales in schools would maintain connections for the children with their own traditional Bhutanese cultural values while gently introducing them to a foreign language and culture. I propose specific stories that might be suitable for classroom use and explain how they might be used. I also describe the Bhutanese value
When I return to Bhutan I will be expected to train teachers in the teaching of English. By providing a body of texts, a rationale for their use, and a mode of discourse suitable for class discussion, I hope to prevent others from becoming "uprooted victims" too.

Natural Sciences


Ghosh, S. **Evolution of the main central thrust zone in the higher Garhwal-Kumaun Himalayas: an integrated structural and textural study.** *Edinburgh University* M.Phil. 1993.

The thesis provides as much of basic geological information as possible on the Main Central Thrust Zone (MCT-Zone) of the Himalayas taking two sections into focus: the Alaknanda section between Joshimath and Gulabkoti was studied in greater detail than the Darmaganga section between Sobaia and Khet, the former in Garhwal and the latter in Kumaun. Thrusting along the MCT-Zone has brought high grade crystalline rocks of the Higher Himalayas on top of the low grade Lesser Himalayan rocks. A classic inverted metamorphic sequence is noticed across the MCT-Zone into the crystallines above. The major deformation and metamorphism episodes that affected the MCT-Zone and its neighbourhood, the broad physical conditions operating during the MCT-emplacement, and the relationship of MCT-emplacement with the inverted metamorphism in the area have been worked out.

Lorphelin, Lénaïck. **Étude d'une séquence altitudinale de sols le long d'un versant—type de l'Himalaya népalais: les sols du versant Salmé.** [French: Study of an Altitudinal Sequence of Soils along a Slope—Type of Himalaya of Nepal: The Soils of the Salmé Slope.] *Poitiers*, 1985 (Doctorat de 3e cycle en géologie appliquée). 165, 6p. For copies write to the Bibliothèque de l'Université de Poitiers, Section Sciences, Bâtiment B, 40 avenue du Recteur-Pineau, 86022 Poitiers, France.


Examination of quartzo-feldspathic mylonites from major fault zones in the Western Himalayas has been performed to identify the deformation mechanisms and, where possible, to quantify the conditions in which they have operated. Results from examination of the MMT near Jijal show that stress heterogeneities have resulted from strain field perturbation in the region of rigid feldspar clasts. Associated with this, CPO patterns reflect the change from strain accommodated predominantly by simple shear to the localised occurrence of pure shear. AVA analysis and a zonal breakdown of the CPO indicate the occurrence of a composite CPO. Deformation by crystal plasticity during extensional reactivation of the MMT is confined to the earliest stages of reactivation. Subsequent brittle

deformation was not recorded in any great detail within the specimen studied.

On the Western margin of the Nanga Parbat syntaxis fold and fault accommodated uplift and exhumation of the Indian Plate has occurred since 10Ma. In the Liachar Thrust zone ductile fault rocks from the Tato Road exhibit top-to-the-north-west shear criteria. Deformation textures indicate that significant thermal annealing of the microstructure has occurred. Stress levels recorded from sub-grain sizes relate to a minor, subsequent plastic event and do not relate to deformation within the ductile portion of the thrust zone as a whole. Cataclasism has preferentially occurred towards the base of the ductile shear zone and cyclic displacement is recorded by evidence for different cementation and fracturing events within individual specimens. In the Sassi area deformation, again related to uplift, indicates that the early fold-accommodated uplift may have occurred at 8Ma. The biotite-rich shear zones from which this date was obtained exhibit evidence for heterogeneous fluid flow on the grain scale. This calls into question the validity of mineral dating without microstructural analysis. The biotite shear zones formed during west-side-down flexural-slip related to antiformal doming within the syntaxis.


Subsequent to Lower Eocene (ca. 50Ma) collision of the Indian and Asian plates, continental subduction occurred along the N-dipping Main Central Thrust (MCT) of the Himalaya. In western Garhwal, NW India, upper amphibolite facies Vaikrita Group gneisses of the High Himalayan Slab (HHS) were thrust southwards over unmetamorphosed to greenschist facies Garhwal Group quartzites, carbonates and metabasics of the Lesser Himalaya. In the Bhagirathi valley, the MCI forms a ca. 10km thick shear zone composed of mylonitic Musuni Group augen gneiss, amphibolite and metasediments. Metamorphic grade increases both northwards and with structural height.

The MCT zone is bounded to the N by the Vaikrita roof thrust (VT) and by the Munsiari floor thrust (MT) to the S. The VT is a diffuse high-temperature shear zone recognised through a difference in lithology, metamorphic history, and tectonic style between the Vaikrita and Munsiari Groups. The MT is a relatively discrete fault formed at conditions approaching the brittle-ductile transition. N of the MCT zone, the Jhala Normal Fault (JNF) is a ductile to brittle N-dipping extensional shear zone that was responsible for the downthrow of HHS gneisses and Tethyan sediments in response to gravitational instability of the uplifting orogen.

Garnet compositional zoning was produced during growth in both the MCT zone and the lower HHS. In the central and upper HHS it resulted from high-temperature homogenization followed by retrogressive re-equilibration. Diffusion studies suggest rapid cooling of the upper HHS garnets may have been caused by crustal thinning across the JNF.

The inverted metamorphic sequence is the cumulative result of polyphase metamorphism. M1 was a post-collisional Barrovian event of garnet to sillimanite grade restricted to the HHS. M2 was contemporaneous with D2 MCT kinematics and was prograde only in the MCT zone and lower HHS possibly as a result of conductive footwall heating. M3 resulted from nearly isothermal decompression of the upper HHS as a consequence of JNF activation. Thermobarometric transects reveal a sudden increase in both P and T across the VT with subsequent decreases accompanying structural height in the HHS.

Reliable K-Ar (muscovite) cooling ages from a transect through the MCT zone and HHS are progressively younger towards the S. Ages of ca. 22 Ma to ca. 8Ma reflect the piggy-back style deformation sequence; disruptions to the younging sequence are interpreted as localised resetting of ages due to out-of-sequence shearing events. Biotite ages commonly suffered from excess argon and were unreliable. An 40Ar/39Ar (hornblende) cooling age suggests rocks of the lower MCT zone were not healed above ca. 500Ma since the Precambrian. A ca. 20Ma age dates the last high-temperature motion in the upper MCT zone. The decrease in cooling rate obtained from cooling ages for specific mineral blocking temperatures for the upper MCT zone may be linked to a return to erosion-controlled denudation after JNF extension.


This thesis presents the results of an investigation of the glacial geomorphic processes associated with sediment production and deposition in the Nanga Parbat Massif, Pakistan Hindalaya. Emphasis is placed on contemporary deposition mechanisms; the nature and timing of Quaternary glaciation; and the influence of tectonic uplift on the glacial record.

The field study concentrated on the extensive valley glacier systems of the Nanga Parbat Massif (8125 m.a.s.l.), at the western end of the Himalayan mountain chain. Some 60% of the surface of this region is glacierized and has experienced rapid tectonic uplift and intense denudational processes throughout the Quaternary. The glaciers of the area are very active; they have high values of mass-flux and transport considerable volumes of surficial glacial debris. Past and present glacial activity has resulted in the extensive moraines and other glacier-related deposits which are
found throughout the massif. Sampling was undertaken on both contemporary and Pleistocene glacial deposits. Systematic sampling of glacier sediments of the Rakhiot Glacier to the north of the massif and Chungphar Glacier to the south was designed to sample down-glacier trends. Transport pathways, from sources areas to the glacier snout, were mapped and samples were collected for particle size analysis and scanning electron microscopy. A similar study of the Glacier de Cheilon in the Swiss Alps was also completed so that the two glacier sediment systems could be compared. In the Nanga Parbat Massif, the Quaternary deposits of the Rupal, Astor, Rama and Rakhiot valleys were subdivided into sedimentary units on the basis of geomorphological mapping, logging of sedimentary sections and multiparameter relative age dating techniques. Quaternary ELAs and glacial limits were reconstructed in an attempt to assess variations in the size and distribution of glaciers in the massif.


The Kohistan arc in the northwestern Himalayas records a dual history of intra-oceanic and continental subduction and represents a juvenile addition to the continental crust. Within western Kohistan, the roof-zone of the Kohistan batholith has a complex tectonomagmatic history that reflects fluctuations in the mechanisms of subduction. Five separate episodes are identified and although being temporally, spatially and morphologically distinct, each retains similar subduction-related chemical and petrological characteristics. Two calc-alkaline intrusive suites, each consisting of nested gabbroic-granitic plutons represent high level intrusions emplaced by predominantly brittle fracture mechanisms.

The earliest, Stage 1, date from ca. 78-75 Ma and intrude into a variably deformed and metamorphosed island-arc fore-arc succession (Kalam Group). Unconformably overlying the earlier suite, but intruded by the Stage 2 suite (ca. 48-45 Ma) are the dismembered remnants of a subaerial volcanic arc (ca. 60-55 Ma). The Dir Group and its northern continuation the Shamran Volcanics, represent resumption of volcanic activity along the margin of Eurasia after a prolonged period of uplift and erosion. Two contrasting environments of deposition are identified; a distal deep-water marine fore-arc (Baraul Banda Slate Fm.) and a subaerial/rifted volcanic cone facies (Uttror Volcanic Fm. and Shamran Volcanics). Sedimentary fore-arc thicknesses and the abundance of rhyolite lavas and pyroclastic-flows imply extensional tectonic control even though the arc developed at a convergent margin.

Juxtaposition of the two facies along the Dir Thrust reveals that between ca. 75 Ma and 55 Ma the focus of the magmatic activity within Kohistan migrated northwards. During the India-Eurasia collision the arc was tectonically thickened by SSE-directed thrusts which reworked unconformable and intrusive contacts. Calc-alkaline basaltic dykes exploited these collision-related fabrics. The final magmatic episode cross-cuts all structures and lithologies and consists of peraluminous leucogranite sheets. In adopting a multidisciplinary approach, this study has not only documented the geotectonic history of the region but has also emphasised the importance of studying surface processes when investigating structurally complex magmatic arcs.


Demonstrates how natural and human-induced processes have contributed to landscape changes in two national parks of Nepal: the Langtang and Sagarmatha mountain areas. Some comparisons are made with the Tatyema park area of the Northern Japanese Alps. Appended to the thesis typescript (but not included in the microform edition) are reprints of articles by Teiji Watanabe and others.


Tibetan karst landforms and their evolution are intimately related to the tectonic evolution and consequent climatic changes of Tibetan Plateau. Present-day processes reflect the current elevation, cold and aridity of the plateau, making karst evolution slow and latitudinally varied according to snow accumulation and melt, periglacial activity, and regionally, to exposure to rain-bearing winds. Field investigations of present-day processes, particularly in the Lhasa area, illustrate the importance of springs, hydrogeological conditions and present glaciation tbr present processes.

The evolution of Tibetan karst landforms reflects the plate movements which caused the uplift and fault-block movements on the plateau. The erosion surface which was formed throughout Tibet in the mid-Miocene, after the collision of Indian Plate with Eurasian Plate (50 Ma), was later cut by block movements in the mid-Miocene and Pliocene. This surface is still preserved at
5100-5400 m elevation in the Lhasa area. Violent uplift started at the end of Pliocene, leading to a change in altitude of Tibet from 1000-2000 m in the Pliocene to 4000-5000 m at the present-day. This uplift changed the planetary circulation system, causing a dramatic change in Tibetan climates from subtropical to a dry, cold periglacial upland climate. As a consequence, lack of water was weakened and reduced karstic processes since the Tertiary. Nearly all the surface karst landforms formed in Tertiary have been eroded since then and the pinnacles that were considered by many Chinese geomorphologists to be relict tropical or subtropical karst towers are landforms which have formed since the mid-Pleistocene and are forming under the extreme physical weathering. However, cave systems related to the Pliocene wide valleys, cut below the mid-Miocene erosion surface, still exist. Cave sediment research demonstrates that cave chemical and fluvial sediments were deposited under wetter climates, mainly before the late mid-Pleistocene (200 kyr). Since then collapse, ephemeral flood and aeolian sediments have accumulated in all caves. Present-day Tibetan karst development is among the slowest in the world, but in some circumstances, karst solution rates are increased, as at the edges of glaciers and in deep phreatic zones.