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EDITORIAL	3
ARTICLES	
Networks and Practices of Weather and Climate in the Western Himalaya Andrea Butcher	5
Ethnobotany, Commercialisation and Climate Change: consequences of the exploitation of yarsagumba in Nepal Kamal Adhikari	35
Encountering Climate Change: dialogues of human and non-human relationships within Tamang moral ecology and climate policy discourses	
Ben Campbell	59
Village Gods and Goddesses of Kinnaur and their Moneylending System Seema Thakur and R.C. Bhatt	1 88
BOOK REVIEWS	
Tenzin Jinba: In the Land of the Eastern Queendom. The Politics of Gender and Ethnicity on the Sino-Tibetan Border	d
Katia Buffetrille 10	02
Indrani Chatterjee: Forgotten Friends: Monks, marriages, and memories of Northeast India	
Philippe Ramirez	05
Response to Philippe Ramirez	
Indrani Chatterjee	11
NOTES ON CONTRIBUTORS 13	30

EDITORIAL

Climate change has become an important topic in many scientific disciplines, especially anthropology and geography, which are disproportionately represented in the pages of the *Bulletin*. It has also come to be a central focus for scholars working on the Himalayas, which are often represented as a "climatically pivotal Third Pole," to use the words of Ben Campbell in this issue. Because of their crucial function in storing water, regulating its distribution, and effecting climate patterns throughout Asia and indeed the world, the Himalayas have attracted increasing attention from natural scientists concerned with such issues. Scholars in the social sciences and humanities have followed suit, and this issue of the *Bulletin* includes three articles on climate change in the Himalayas from the perspectives of Anthropology, Ethnobotany, and Religious Studies.

Andrea Butcher applies Actor-Network Theory to understand the different discursive responses to climate change in Ladakh. Kamal Adhikari examines how commercialization of the *yarsagumba* or caterpillar fungus, combined with climate change, poses severe threats to its sustainability. Ben Campbell provides an account of the effects of climate change in northern Nepal that is at the same time autobiographical, ethnographically detailed, and a rousing call to action. All three essays provide excellent examples of how the humanities and social sciences are in the midst of a radical re-thinking of the relationship between human beings and their "natural" environments.

Climate change is, however, not the only item on this month's menu. EBHR 49 also contains a fascinating discussion by Seema Thakur and R. C. Bhatt of the "banking" activities of the village gods in Kinnaur, Katia Buffetrille's review of Tenjin Jinba's fascinating book on Tibetan cultural politics, and a lively response by Indrani Chatterjee to a review of her book *Forgotten Friends* by Phillipe Ramirez (also in this volume). Enjoy!

William S. Sax, Editor EBHR

Networks and Practices of Weather and Climate in the Western Himalaya

Andrea Butcher (University of Exeter)

We humans are now an actor in the unfolding story of climate's evolution, alongside the personal gods of the heavens and the impersonal dynamics of the oceans. (Mike Hulme 2010: 120)

The 2010 Disaster

On the nights of 5th and 6th August 2010, the Himalayan region of Ladakh experienced a series of cloudbursts triggering mudslides and flash flooding that devastated local settlements and farmland, leading to an unprecedented loss of life.¹ Officially, the causes were attributed to climatic instability associated with global warming.² But alongside the scientific explanation, both the tragedy and increasingly noticeable climate instability were interpreted locally as signs of *sonam nyamspa*: an era of demerit and decline in the protective capacities of Buddhist rite and ceremony as prophesied by the eighth century Tantric master Padmasambhava (henceforth referred to by the honorific title Guru Rinpoche³). The agents of karmic retribution were the autochthonous supernatural inhabitants of the skies, land and water who — angered by an increase in environmental, ritual, and moral pollution resulting from new forms of livelihood, transportation, and consumption — sent the flood as punishment and warning.

Weather is of increasing concern for Ladakhis. Warmer winters and wetter conditions — including the 2010 cloudburst and the intrusion of the Indian monsoon in 2014 and 2015 — are creating anxieties for local

¹ The regional development administration's official figures give the total loss of life for the Leh District as 233, with 424 people injured and approximately 79 people unaccounted for. The totals include foreign tourists, but do not account for the migrant workers from the states of Bihar and Jharkhand, or from Nepal. (Butcher 2013a: 104; 2013b: 3).

² For example, see 'Climate change behind Leh cloudburst?' *The Hindu*, August 25, 2010, http://www.thehindu.com/sci-tech/energy-and-environment/climate-change-behind-leh-cloudburst/article593902.ece, accessed 15/04/2016.

 $^{3\,} Throughout \, I$ have transcribed indigenous terms according to central Ladakhi pronunciation. I italicise nouns but not personal names.

populations and development organisations. Practical solutions and adaptations developed by local actors combine externally designed sustainability policies and technologies with ritual ceremonies and architectural schemes aimed at subduing malevolent forces and establishing a 'moral climate' conducive to the flourishing of the Buddhist teachings. The result is an assemblage of climate management that connects scientific evidence, sustainable development, moral exegesis, supernatural actors, and practices of 'everyday religion' — defined here as performances of household and monastic ritual and ceremony aimed at removing pollution, restoring blessing, and arresting the decline into an era of demerit.

The article contributes to a wider conversation that anthropologists, geographers, and scholars of environmental humanities (e.g. De La Cadena 2010; Hulme 2010; Popke 2016) are currently engaged in: how to approach climate change as multidimensional, assembled from human and non-human entities, and characterized by diverse ways of knowing. This conversation attempts to move beyond 'climate' as something that can be adequately represented via precise measurements and numerical indexes, international policy frameworks, or the discourses of the Anthropocene, and move towards a consideration of how societies define and experience weather and its condition, asking what these definitions and experiences can contribute to climate debates and responses (Yeh 2016).4 For example, climate change specialist Mike Hulme argues for the need to consider the weather we currently experience as 'the result of this new coproduction between ourselves and the forces of nature' (2010: 120). He asserts the need to rethink climate change in order to accept climate novelty: to think of weather as something that is increasingly variable (with both productive and disastrous effects), so that our responses to it are also variable:

Novel climates are neither good nor bad. They are novel, and we must find ways of imbuing them with meaning, value, and utility [...] As climates change, the variety or volume of weather will not be diminished, but the sequences and patterns of weather and the

⁴ This is not to suggest that science, policy and the philosophies of the Anthropocene are *not* ways of experiencing climate.

distribution of places where different weather occurs will alter (ibid: 120-121).

The conversation concerning how adequately to approach multidimensional climate change pursues three lines of reasoning: how plural epistemologies (ways of knowing) are brought into being through practices; how ontological and material configurations of climate and environment are emergent in the embodied and practical engagement that people have with their environments; and how to develop new kinds of theory and methodology that are 'capable of holding different ways of knowing in tension' (Popke 2016: 3).

In what follows, I consider the 2010 flood (chulok) in Ladakh as the result of an enactment of weather that cannot be measured as a purely biophysical phenomenon. With the advent of the Anthropocene — the proposed epoch whereby humanity becomes the main force shaping the planet's geologic, atmospheric, and biospheric processes — critics have disparaged the human-nonhuman separation that has characterised particular types of knowledge production in the modern era. This separation is responsible (they assert) for producing a mode of social existence in which nature and the environment are depleted of qualitative value. This has triggered moves within the humanities and social sciences to consider approaches to social theory that break down the boundaries between humans and nonhumans — culture and nature. STS scholars address this by foregrounding the connectivities of sociality and materiality, whereby materials, artefacts, and atmospheric conditions or biophysical matter are given agency in an approach to social theory that examines phenomena and experience as webs of networks, actions, and relations (human and nonhuman). Drawing upon the theories and philosophies of Science and Technology Studies (STS) and concepts of hybridisation, I describe a 'climate system' brought into being via the activities of religious authorities and guardian deities as well as local populations, with the associated ritual and ceremonial practices that form part of their daily routines. I also consider the usefulness of thinking through 'modes of syncretism' (Law et al 2013) as a possible methodology for revealing multiple assemblages, or multiple climates, with multiple effects.

The Field

A former Buddhist Kingdom, Ladakh is now a region in the Indian state of Jammu and Kashmir (J&K), although it retains religious links to Tibet's exiled Buddhist monastic colleges. The region is divided into the two districts of Leh and Kargil with predominantly Buddhist and Muslim populations respectively, and the site of my field research was the Buddhist-dominated Leh District.⁵

The evidence for this article is taken from my PhD field research carried out over sixteen months from 2009 to 2012. Based on ethnographic fieldwork in Leh District and interviews with the Central Tibetan Administration (CTA) at Dharamsala, the thesis investigated local attempts to integrate material and sustainable development, democratic government, and a market economy according to doctrinal and ethical principles of religious governance (virtuous action, moral discipline and compassionate consciousness) with its attendant ritual and ceremonial performances. Using observation of monastic festivals, public teachings and workshops, and drawing upon documentary and material evidence collected from formal and informal interviews with administrative departments, religious authorities, civil society organisations and local laity, the thesis examined the encounter between normative development ideology and delivery, and Tibetan Buddhist ethics and ceremonial performance. In Ladakh the reproduction of material and religious life is managed by the laity (in their roles as both farmers or waged earners, and religious patrons), the local development administration, enlightened rulers, transcendental protector deities, sacred technology, and the supernatural guardians of weather, soil and water that dwell within the landscape. The thesis demonstrated the challenges for the development administration in maintaining secular guarantees whilst occasionally having to acknowledge supernatural agency, and ceremonially asking permission to exploit land, divert water or by performing exorcisms to ensure project success (see also Butcher 2015).

Climate entered the picture following the flood, when narratives pertaining to retributive numina, karmic consequence, and the era of

⁵ Muslims also form approximately twenty percent of Leh District's population, together with a very small Christian population. For reasons of space, and given the focus of my doctoral thesis, their voices regrettably are not included in this account.

demerit were observable alongside meteorological explanations derived from scientific empiricism. As an ethnographer conducting fieldwork for the first time, I was surprised how these diverse epistemologies and practices of land management were rarely considered contradictory; rather their seemingly inconsistent logics were 'collapsed' together in such a way that made pragmatic sense to those caught up in the assemblage (Law *et al* 2013: 186). This raised certain questions, for which I found resonance in the field of STS that later influenced the direction of my intellectual enquiry.

Hybridity and Noncoherence

STS scholars critically evaluate the history of objectivity and empirical authority in Western political and philosophical thought, which reached its zenith during the European Enlightenment. They emphasise how objectivity manifests in the practice of science; how it is performed via networks of actors that include institutions, specialised equipment, controlled experiments, budgets, policy frameworks, articles, media reports and so forth (Latour 1993; 2004; 2013; Law et al 2013). Latour (1993; 2004; 2013) asserts that 'nature' and the nonhuman are not empirical givens but categories brought into being via practices that produce an ontology peculiar to scientific objectivity, in which human and nonhuman worlds - the domain of society and the domain of nature respectively - are defined and segregated (purified' to use Latour's term). In this model of reality, nature's and society's respective representatives - science and politics, understood here as particular types of knowledge and practice — are denied the opportunity to cross the boundary and speak for the other. Such separation and purification underpin the international response to climate change according to the evidence and discourses of climate science.

Latour argues that, paradoxically, each domain relies for its establishment and maintenance on the production of what he calls 'hybrids'. These hybrids are composed of practices, performances, and artefacts that mediate between human and nonhuman domains: for example policies that regulate levels of chlorofluorocarbons released into the atmosphere, or regulations governing the keeping of frozen embryos (1993: 1-2). Rather than purity and coherence, there exists instead what Law *et al* (2013: 174) call noncoherence: inconsistent logics

mixed together in nonetheless productive ways. Another way of approaching noncoherence is through assemblages: ensembles of heterogenous social and political practice or heterogenous ways of knowing 'that are not reducible to a single logic' (Collier and Ong 2005: 12). Collier and Ong consider how a range of phenomena that are global in form and mobility (for example, science and technology, systems of exchange, systems of political administration or governance, regulatory systems, and ethical regimes or value systems) are articulated or reconfigured in specific territorial and historical situations they encounter (ibid: 4). They argue that while such phenomena are transmitted globally or transnationally, they display idiosyncrasy when they interact with localised elements upon which the actual form of their practice is contingent. Awareness of these assemblages, processes of hybridisation or noncoherence, and awareness of how they disturb sociality and materiality, opens up a space whereby multiple climates can be enacted. But what exactly do we mean by 'multiple climates'?

Though anthropologists have long noticed that different modes of thought and inconsistent rationalities can occupy the same space (e.g. Tambiah 1990), in their accounts social scientists increasingly foreground hybridisation and mediation: how objects, experiences or situations are manipulated and transformed according to the different practices that generate them, thus producing multiple realities that somehow hang together. Annemarie Mol, in her ethnography of disease and medical practice, argued that the disease atherosclerosis differs ontologically according to the particular medical practice in which it is manipulated — be it in the diagnostics, treatments, patient information leaflets or via laboratory practices — leading her to conclude that it is possible to understand objects and materialities as things manipulated in practices: 'reality multiplies' (2002: 5).

Law et al conceptualise multiple realities by suggesting possibilities for hybrid mediation. They term this conceptualisation 'modes of syncretism', which they develop through the analysis of concrete examples that identify six specific possibilities: denial, domestication, separation, care, conflict and collapse (2013: 177). Each of these possibilities describes a different entanglement of knowledge and practical engagement that produces a particular situation. For example, they examine how inconsistent logics can be collapsed together by observing

how empirical sciences are embraced by the logics of supernatural intervention in Taiwan, whereby the success of medical procedures requires the sanction of local protector deities (ibid: 186). They also consider *conflict* with regard to drilling for oil in the Arctic Ocean off the coast of Norway, in which the spheres of politics, religion and science — which in 21st Century Norway are considered to have different logics — come head-to-head in a debate over potential negative impacts associated with drilling. This raises further questions with regard to exactly what politics, religion and science are considered to be, the proper place for each, to what extent they can coordinate, and how their separation should be managed (ibid: 183-184).

A similar example might be Marisol de la Cadena's analysis of chthonic participation in contemporary political activism, in which she investigates and discusses the appearance of supernatural beings in social protests against neoliberal expansion in the Andes. She calls this 'indigenous cosmopolitics: a form of politics that brings together [the inconsistent logics of] indigenous ontologies and the divergent worlds of scientists, activists and so forth that aim to speak for a new politics of nature' (ibid: 346). De la Cadena provocatively suggests that conceptually, cosmopolitics accepts 'nature' as multiplicity (ibid: 349), thus disturbing the purified realms of human and nonhuman. Whilst De la Cadena's article is an account of [cosmo]political activism, it is this concept of multiplicity that is useful for the current article's argument.

Purification

Ladakh makes an interesting case study because geomantic rebalancing (for example, the construction of temples and sacred architectural schemes at strategic points in the landscape to prevent disaster, see Butcher 2015), ritual performances of subjugation and purification of local deities, and the relationships between humans and their chthonic neighbours are considered in political or development contexts neither administratively nor in academic scholarship. This is surprising given that earlier ethnographic accounts focused on such relations (eg Day 1989; Mills 2003; Phylactou 1989), and that they appeared in critiques of development in other Himalayan regions (e.g. Campbell 2010; Yeh and Coggins 2014). There are clear reasons for this: in the eastern Tibetan provinces chthonic inhabitants form part of the resistance to Chinese

occupation and the Communist Party's environmental regulations and hegemonic development management. They protest against land exploitation and the loss of both territorial and embodied sovereignty, for example by sending disaster or disrupting weather (see Yeh and Coggins 2014). By contrast, in Ladakh's Leh District, the Indian Union provides border security, resources, opportunity and wealth. Even when the state is publicly criticised for transforming Ladakhis from proud, self-sufficient agriculturalists to culturally impoverished dependents, this is done through discourses of normative sustainability, or of the ideologically reformed 'Buddhist modernism' (Bechert 1984) with its rejection of worldly ceremony, and in which propitiation of spirits is relegated to the realm of 'superstition' and 'incorrect practice' in favour of the more 'rationalised' descriptions of religious practice (similar to the kind identified by Weber [1930] in his analysis of rationality and a particular kind of ethic found in Calvinist Prostestantism, which foregrounded disenchantment and efficient resource use).

In addition, a narrative of Buddhist Ladakh was constructed by earlier visitors to the region (e.g. Crook 1980; Norberg Hodge 1991), which reified it as the quintessential sustainable society, living in harmony with nature due to its spirituality based upon the Buddhist teachings (popularly portrayed less as a religion and more as a rationalised, secular philosophy). This narrative has been appropriated by the local development administration, forming the basis of its vision for development (LAHDC 2005), and for which it has historically received substantial external support. At the same time, it is also necessary for Hill Councillors and NGOs to separate development and religion in order to conform to the Indian Union's constitutional secularism. All coalesce to produce a political identity in which it is politically expedient to place less emphasis upon the agency of the wider cosmology within which social life occurs.⁶

Interdependence and 'Green' Identity

Toni Huber (1997) coined the term 'Green Tibetans' to describe the Tibetan exiled government's reification of what he recognises to be a political identity thoroughly modern in character, but which claims a

⁶ Although in practice they are unable to ignore it completely. See Butcher 2015.

continuity with the past by maintaining ancient 'traditional' practices of climate and environment management. These practices are expressed according to the modern separation of human and nonhuman worlds, and an idealised relationship between Buddhism and sustainability that is presented on the global stage. One of the ways in which this continuity is articulated is through the Buddhist doctrinal principle of pratityasamutpada, or dependent origination, which explains how phenomena do not exist independently but are in dependent or mutual causation with other phenomena, and it is from these dependently originated causes and conditions that positive or negative karmic consequence arises. In the construction of the 'green' political identity, pratityasamutpada is associated with scientific and moral discourse of climate management and environmental sustainability, where it is rationalised as a 'cause and effect' relationship more commonly represented in the empirical sciences, connecting scientific evidence of environmental degradation with the secular moral imperative for protecting the natural resource for future generations. For example, the Karmapa Rinpoche, exiled head of the Karma Kagyu teaching lineage writes:

As I grew up and began studying Buddhist philosophy and teachings, I discovered great harmony between Buddhism and the environmental movement. The emphasis on biological diversity, including ecosystems — in particular, the understanding that animate and inanimate beings are parts of a whole — resonates closely with Buddhism's emphasis on interdependence...I greatly appreciate the concept of sustainable development, defined by the World Commission on Environment and Development (1987) as 'meeting the needs of our present generation without compromising the ability for future generations to meet their own needs.' After all, if the concept of reincarnation proves to be true, we are the future generation. (HH Seventeenth Gyalwang Karmapa 2011: 1094-1095)

Connecting interdependence to sustainability is evident in Ladakhi development ideology, whereby Leh's development administration and religious leadership have successfully appropriated the sustainability

narrative into a framework for development that aligns it with Ladakh's cultural values: a narrative in which Buddhist ethics predominate despite the religious composition of a district that includes Muslims and Christians. Local historian and Buddhist scholar Tashi Rabgias has been instrumental in creating this connection between Ladakhi cultural values, Buddhist exegesis, and the discourse of sustainability (1986; 2004; 2009). According to Huber (1997: 110), Rabgias' presentation for the Ecology and Principles for Sustainable Development, hosted by local sustainable development NGO Ladakh Ecological Development Group (LEDeG) in Leh, 1986, was the first recorded instance where the theory of dependent origination was used to describe the interrelationship between ecology and human society:

The Buddhist worldview is that of the interdependence (or *pratityasamutpada* in Sanskrit) of all things, which means that phenomena come into being through the interaction of various causal factors ... Both Western ecology and Eastern Buddhism recognise this relationship and interdependence ... (Rabgias 1986: 69).

Rabgias continued by explicitly connecting the principles of dependent origination, expressed here through the Buddhist teachings of compassionate consciousness, with ecology:

Another teaching of Buddhism is to have love and compassion for all living beings ... When one has love and compassion for all living beings, naturally one takes care of the plants and crops which sustain living beings ... All these elements are interlinked, sustaining and supporting one another. In the Mahayana Buddhist culture, the law of interdependence did not remain confined to the intellectual community of Sangha or monks or laymen, it has come down to the level of the common man ... Buddhists have lived according to the principles of ecology as a result of the Buddha's teachings (Tashi Rabgias 1986: 68-69, original emphasis).

Such narratives have influenced the missions and projects of local development organisations who, concerned that planned development

is being delivered in an environmentally and culturally unsustainable manner, seek to redress the balance through the delivery of externally-designed sustainable development projects. LEDeG articulates its mission as follows:

With our primary mission as the promotion of ecologically and socially sustainable development which harmonises with and builds upon traditional Ladakhi culture, we have set out the following as our aims and objectives:

- To encourage awareness in the people of Ladakh about the need to consider the long-term effects and impacts of conventional development, the environment, ecology and culture.
- To encourage awareness amongst the people of Ladakh about the potential value of traditional culture, agriculture and conservation for the future sustainable development of Ladakh.
- To encourage the use of perpetually renewable natural resources in Ladakh.⁷

Despite this linking of Buddhist values with environmental sustainability, Leh's development employees were reluctant to admit that they engaged with the ritually transformative and chthonic elements of Ladakhi social life, as they did not want to contradict the Indian Union's constitutional secularism and the formal separation of state and religion. This is an example of a mode of syncretism that Law et al label denial: a refusal to recognise what does not cohere (2013: 189). This particular syncretic mode is foregrounded when 'the system [in this case, Leh District's development administration] neither sees nor cares about any of the messy processes needed to [reproduce social life] work in the first place' (ibid: 178). This denial of the cosmopolitical also refuses supernatural entities the opportunity to participate in the management of social and material productivity, of which development activity and climate interventions now form a part. NGO mission statements and PR materials do not discuss Ladakh's culture and values

 $^{^7}$ For the complete list of points, visit http://LEDeG.org//pages/about-us/our-mission.php, accessed 03/03/2016.

in terms of religious or cosmopolitical symbolism or practice, and during interviews development personnel took pains to reinforce the secular nature of their projects, expressing neutrality with respect to religious engagement.

Two further modes of syncretism are also in play. On the one hand, by self-consciously aligning the doctrinal principle of *pratityasamutpada* with ecological interdependence, the principles of Ladakhi sustainability represented in development discourse maintain the separation and purification of nature and politics as discussed above. Ecology and the sustainability discourse are woven together with Buddhist principles, philosophies of karmic cause and effect, and written into regional development policy and NGO missions as a way to respond to and prevent climate change. This could be considered an example of *domestication*, whereby two qualitatively different — even conflicting — contexts are purified, rationalised and rendered commensurable (ibid: 180). However, the NGO statements and development policy documents do not say a great deal about the *performance* of karmic consequence and sustainability.

Buddhist Ladakhis make sense of climate management by invoking the cosmopolitical; in addition to sustainable development delivery they find solutions in rituals to pacify local deities and geomantic taming. Here, the mode of syncretism *separation* proves useful (Law *et al* 2013: 180), whereby the practices of administrative and ceremonial governance are divided out, and can coexist as long as they are not brought together, at the level of public discourse at least (ibid: 182). This was the situation I observed following the 2010 flood.

The Flood

My research problem was directed towards finding evidence of ritual and ceremonial activity operating in the region's development sector: I was interested to see whether the introduction of managerial systems of governance had eroded ritually prescribed codes of conduct across the entire population. As stated above, Ladakh has been idealised as the quintessential sustainable society and model of alternative development (e.g. Norberg-Hodge 1991). This idealisation underpins the regional administration's planning and management of development. Development and ceremony are discursively separated in this particular

model, although (as will be shown) this separation is difficult to maintain in practice. Initially, I struggled to find any connection between managerial and ritual governance. My informants seemed reluctant to admit that the chthonic guardians were affected by development activities, asserting that they (their supernatural neighbours) were indifferent to the introduction of planned development. Others however (including those who initially dismissed the activities of the guardians) would state that the chthonic inhabitants were being impacted by pollution as a result of development, and they were becoming more unpredictable. Respondents were concerned that development was not progressing in a way that was environmentally or culturally sustainable, despite statements to the contrary. They would express fear that the water spirits (lu) and landlords of the earth (sadaq) were displeased. Activities were taking place without the express permission of sadaq, and people were no longer taking care to keep springs clean, much to the anger of the lu who respond by sending illness. The young monks of Ridzong monastery in upper Sham commented on how development affected the chthonic inhabitants' disposition. They stated that the *lha-lu* consider development to be bad, and that they were becoming very dangerous as a result. One monk mentioned an incident of flooding in 2008 that affected the upper Sham area, which he linked to the activities of the lha-lu.

AB Do the local deities like development or do they think it is bad?

Monk They think it is bad.

AB How do they show their anger?

Monk They can be very dangerous. They can cause skin problems, eye problems, not speaking, not walking [paralysis]. Lamas and onpo need to make puja to make sadag good.

AB Are they making bad things happen with the weather?

Monk Yes, sometimes. If people don't keep the spring water clean then they cause rain and floods. Last year [2008], there was a big flood. It destroyed roads. The school was destroyed but now it is repaired. (Interview Transcript, 18/02/2010)

In the wake of the larger and more destructive 2010 flood, the expression of these fears became noticeable, and activities aimed at taming the angry supernatural guardians and restoring blessing in order to ensure a favourable weather conditions were becoming increasingly visible.

Angry Gods and Karmic Consequence

The meteorological explanation for the flood described an intensive convective system that developed in an easterly current associated with the monsoon conditions. This system had travelled up from Nepal and the Indian plains, intensifying as it did so before bursting over the region (Leh Disaster Management Plan 2011: 16). Following the devastation, two prominent spiritual leaders, the Fourteenth Dalai Lama and the Twelfth Drukchen Rinpoche (exiled spiritual leader and head of the Drukpa Kagyu school of Tibetan Buddhism), visited the region to assess the damage, and to offer prayers, teachings and advice. Whilst the Dalai Lama advised Ladakhis that they should consider climate change and disaster as worldwide phenomena, Drukchen Rinpoche was less magnanimous. He told Ladakhis that the flood was borne from accumulated negative karmic consequences (lasgyudas) resulting from a reduction in correct moral and spiritual observance, and emphasised that correct spiritual practice and maintenance of ethical discipline needed to be observed if disasters such as this were to be prevented (see below). Similarly, Togdan Rinpoche — a powerful ritual specialist skilled in the art of geomancy and divination, and spiritual head of the Drigung Kagyu lineage of Tibetan Buddhism in Ladakh — emphasised the negative quality of the mind in the era of demerit, and warned of the danger of increasing material attachments: 'People have to collect good karma and make their hearts good, otherwise the elements may clash and different types of evil will happen. The merit from earlier times has finished' (interview transcript, 03/12/2010).8 The majority of my lay respondents identified the *lha-lu* — chthonic guardians of weather, soil and water — as the agents of the flood, or chulok. Their fury was attributed to human action, which had contributed to a dangerous accumulation of ritual pollution and its grave result.

8 See also Butcher 2013a: 112.

In Himalayan Buddhist sociology, the state of nature — whether accommodating of, or destructive towards, human endeavour — is conceived of in terms of moral and binding relationships of obligation between localised human populations and the non-human inhabitants of the same locations (Huber and Pedersen 1997: 585). If friendship and protection are to be maintained, humans are required to perform activities that preserve or replenish stores of the blessed essence chinlab, and avoid or remove the ritually polluting essence dip. Situations that produce ritual pollution offend the *lha-lu*, who become angry and dangerously retributive. Mountain deities who are bound by powerful ritual specialists as guardians (choskyong or srungma9) of the Buddhist doctrine are offended by activities that contravene Buddhist codes of conduct and are thus *morally* polluting. In the flood testimonies that I recorded, the dominant causal themes leading to chthonic and karmic retribution were increasing selfishness, less faith in the monastic authorities and their teachings, and greater exploitation of natural resources in a modern economy:

His Holiness [the Dalai Lama] has said that this could have happened because of the friction among the people...the *lha* [mountain guardians] were not happy with the people's way of life, so therefore people need to rectify their way of living. They need to be leading a better or good life; they need to respect the religious areas; they should not pollute the areas where there are *chorten* and monasteries, as this can disappoint the *lha* and then eventually could cause another disaster (Phuntsok, male, 40. Choglamsar, 22/10/2010).

Contraventions of Buddhist codes of conduct are attributed to transformations in economy and livelihood resulting from the introduction of planned development:

The fury of the *lha-lu* [caused the flood]...[in the past] when people dug a little water place for things, they would think a lot. But

⁹ It is important to maintain the distinction between worldly protectors (*jigten pa'i srungma*) who can assist with worldly activities, and transcendental protectors (*jigten las das pa'i srungma*) who are objects of Buddhist refuge.

nowadays they are making a pond here, a pond there, for their profit motives. So for the *lha-lu* it is very certain they would be angry We can very clearly see people earlier, they would not be selfish at the cost of material things. But today people have lots of things, all types of material; still they want more, more selfish with more material and money...So now people are not looking for *chima* [the next life]. They are not taking care of *chima*. They want to do everything here (Sonam, 50s, female. Sabu, 19/12/2010).

Informants would then connect this to the era of demerit, asserting the flood's arrival to be accordance with Guru Rinpoche's prophecy:¹⁰

... in Buddhism we know because of Guru Rinpoche. So he had written kind of a theory that this time will come... We believe that Guru Rinpoche, what he said, has come true... the time is coming.. Floods and everything are coming (Stanzin, male, 20s. Leh, 18/11/2010).

A monk scholar from Sabu explained how in earlier times people understood that natural features were the homes of area protectors, and so would 'do many things' to keep them happy. They would offer juniper smoke (sangs) to remove the pollution that offended them. They would ask permission and ritually prepare the ground before exploiting the soil for agricultural or construction purposes (including the construction of temples), or when diverting water for irrigation. The monk scholar expressed unease at the neglect of such activities (which he attributed to the advent of development interventions and tourism) and stated that with the introduction of new technologies and transportation came new forms of pollution. Similarly, Togdan Rinpoche warned of increasing anger of the deities as a result of a reduction in merit:

It's the people's karma. When people have high desire, when they are angry, full of negativities, then it is karma. . . They have to believe, they have to respect the protectors. But they [the

¹⁰ As detailed in the hagiography, *Padma bKa'i Thang*.

protectors] are not respected, they are all angry. So because of the negativities these things happen. . . (Togdan Rinpoche, interview transcript, 03/12/2010).

Such narratives echoed the concerns of NGO and development personnel, anxious that development was not progressing in culturally or environmentally sustainable ways. However, the testimonies of flood victims and spiritual leaders are notably different from those offered by the development administration. Rather than conceptualising cultural and environmental preservation according to the notions of rationalised sustainability that underpin development and climate interventions in the region, the physical results described by the flood victims and spiritual leaders are instead conceptualised in terms of an interdependence that is contingent upon practices, performances, artefacts and nonhumans that Buddhist Ladakhis depend on to make nature and weather real. When I scrutinised the evidence from my fieldwork, an assemblage of climate that connects development, economy, morality, supernatural actors and practices of everyday religion began to form.

Increasing Communication

Earlier ethnographies report an increase in guardian deities attempting to possess human bodies (Day 1989; Kressing 2003; Srinivas 1998). Some of these possessions may reflect the profitability of oracle consultation as a business venture (Day 1989). However, testimonies also link the increase to social transformation and signs of a degenerate era (Kressing 2003: 9-10; Srinivas 1998). Day (1989) and Kressing (2003) suggest that the rise in oath-bound deities attempting to possess human bodies may stem from a desire on the part of the gods to fulfil their oaths to protect the Buddhist teachings and to prevent a decline into *sonam nyamspa* (the era of demerit) — although both also state how, during their fieldwork investigations, Ladakhis were unclear whether the increase in gods possessing bodies was for the purposes of protection, or an increase in 'bad' gods (those not bound as guardians of the Buddhist faith) as a result of less *chinlab* (Day 1989: 268; Kressing 2003: 9).

In the unfolding story of the flood and its causes, one particular case of communication stood out. In the course of a visit to a local *amchi*

(practitioner of traditional Tibetan medicine) one afternoon in October 2010, our conversation unsurprisingly turned to the flood that had occurred two months earlier. I asked him how it had affected the region where he was stationed at the time: Lalok, a valley in the Changthang region of Leh District. The *amchi* recounted an intriguing story.

When possessing his oracle in February 2010, Taklha Wangchuk — a local mountain guardian and Buddhist protector - had warned of imminent disaster. He cautioned residents that as a result of accumulated dip (ritual pollution), the chthonic inhabitants were displeased and becoming increasingly volatile. Taklha Wangchuk advised residents which ritual purifications should be performed, and under the auspices of Togdan Rinpoche (born in the Lalok valley), they performed the required sangs as instructed. Later that year, when the clouds did burst over the district, Lalok was spared the devastation that occurred lower down the valley. This — the *amchi* told me — was a direct result of the ritual action performed by Togdan Rinpoche in response to Taklha Wangchuk's timely warning. I have written about this mountain deity's prophecy and warning elsewhere (Butcher 2013a, 2013c). For purposes of this discussion, I wish to emphasise the significance of this episode for the theme of this article: hybrid climates and how they are produced.

Taklha Wangchuk's shrine (*lhato*) is near the village of Durbuk, Lalok. *Lhato* are cleaned annually during *losar*: New Year, which for Ladakh is held in the tenth month of the Tibetan Calendar (usually some time in December according to the Gregorian calendar). *Losar* is the time when villagers clean their gods' homes, bringing fresh juniper and renewing the contents of the ritual container inside. While this is happening, the gods occupy their oracles, who act as temporary homes while their permanent ones are being renewed. During that particular *losar* I had the opportunity to interview Taklha Wangchuk through his oracle whilst his *lhato* was being cleaned. We discussed the causes of and reasons for the flood, passages of which I reproduced below:

I predicted how to prevent [the flood] happening this year, but people did not listen to what I said. I said how to prevent it, particularly by doing sangs *chodpa dang sangs gya* [local and

regional-wide smoke offering]. If people had done these before, it could have been prevented.

The reason [for the flood] is because the atmosphere and environment are dirty and polluted (*ts'itu*). Future development should be through peace, not through competition. You must follow the *lamas'* instructions. If you are in competition and chasing money, this is not a good indication. Guru Rinpoche prophesised [the need] to listen to his predictions and what he said...They [Buddhist Ladakhis] should recite [his mantra] and perform *sangs*. This will prevent future disasters (Durbuk, Changthang, 08/12/2010).

As with the testimonies cited previously, the causes of the flood and poor climate are connected to increasing ritual pollution that results from unsustainable development activity and a decline in correct moral behaviour. That the climate is becoming unstable — even dangerous — is attributed to negative karmic consequence resulting from increasing material and moral pollution, which anger the supernatural guardians of weather and water. As agents of karmic retribution, they send disaster. This corresponds to a narrative of demerit and decline — Guru Rinpoche's prophecy of sonam nyamspa: the era of demerit — of which climate change is understood to be a sign. The condition of nature and weather are determined by the actions and interventions of humans, correct moral behaviour, and supernatural actors.

Restoring Blessing as Disaster Response

Thus far, I have focused attention upon the relationships between humans and supernatural beings. The friendship or wrath of the chthonic weather makers towards humans is determined by the latters' activity, to which their supernatural neighbours respond accordingly.

Chthonic beings may be able to determine the condition of the weather, but they can be subdued and controlled by the *tulku*: enlightened custodians of specific teaching lineages. *Tulku* can be monastic or non-monastic; skilled in tantric meditation, they possess the ability to harness power from a separate plane of reality. This power is then used to counter the indications of *sonam nyamspa* by reestablishing ritual protection, restoring blessing (*chinlab*) and providing

opportunities for the local laity to accumulate merit (sonam). Tulku are known to possess substantial abilities of mental intuition enabling them to detect the presence of negative geomantic obstacles, determine the classification of deities, exorcise the demonic ones, and bind the higher classes of deities as guardians of the Buddhist doctrine (Mumford 1989: 84). Tulku are believed to take rebirth in domains to which they have a karmic connection; for example when human inhabitants pray for their return, or during times of misfortune or political strife in order to rebalance negative obstacles, subjugate demonic forces or enemies of the teachings, and restore peace and blessing. In the wake of the 2010 flood their skills were called upon, as initiatives to remove pollution and restore blessing proliferated.

Local households sponsored exorcisms and ritual purifications, which were performed by lay and monastic specialists of ritual intervention in order to remove negative spiritual powers and to ask local guardians to cease their malevolence. Sponsorship of the construction and consecration of devotional objects also proliferated; their function being to heal territories by rebalancing negative geomantic forces, to restore blessing, and establish a domain where the Buddhist teachings could flourish, thus generating peace and happiness, and ensuring the success of social and material productivity of which development and conservation interventions now form a part. *Tulku*, with their ability to interpret geomantic cartography and to intuit the presence of negative obstacles, are responsible for ascertaining where to locate such ceremonial architecture.

For example, in 2011 following advice given by the Nechung Oracle (the State Oracle for the exiled government and worldly protector of the Dalai Lamas) a large *chorten* (Buddhist stupa) to prevent future disaster was built and consecrated just outside of Leh town, on the Khardzong road leading to the Nubra Valley. This is an example of a geomantic solution to climate change and disaster prevention, sponsored by local households and businesses, and prepared under the guidance of powerful *tulku* and geomancer, Togdan Rinpoche. A further example is the construction and consecration of a 100 feet tall Maitreya statue at Disket monastery in the Nubra valley. The decision to build the statue was partially in response to unpredictable weather conditions and water supplies that the region has recently experienced. Such technologies

have a positive effect upon the moral 'climate': calming the minds of the human and supernatural inhabitants of the domain and reviving their commitment to the teachings (something that residents of the Nubra valley attested to following the Dalai Lama's consecration of a 100 foot gold Maitreya statue just days before the flood). In addition, ritual architecture or technologies provide the laity with opportunities to accrue merit by performing circumambulation and prostration at these sites. Such merit-generating activities work to keep blessed powers active. In this particular enactment, it is a combination of geomantic rebalancing, improved mental conditions (human and chthonic), and correct moral behaviour that will — if all goes well — convince those in control of weather and climate to improve its condition. The proliferation of temple and statue construction continues apace.

But in what ways do climate science and sustainability discourse connect with these moral climates and merit-generating activities? How does climate science contribute to a proliferation of climate scenarios? Interesting hybrids that connect the discourse of sustainability to moral and autochthonous understandings of climate management are beginning to emerge, and here I want to describe one such example I observed: a tree planting attempt at Changa Village on the Indus River in October 2010. Over 9,000 people participated in the record-breaking attempt, in which 50,033 trees were planted in 33 minutes. The event was organised by the charity "Live to Love International," of which the Twelfth Drukchen Rinpoche is the founder and ambassador. On its webpage, "Live to Love" describes itself as a movement with 'a secular philosophy that encourages communities to use kindness and wisdom to heal the modern world's challenges \dots . $^{'12}$ One of these challenges is the promotion of environmental sustainability and education, achieved through the delivery of projects that include tree planting ceremonies and the undertaking of 'Eco Pad Yatras': religious journeys taken on foot, which also function as environmental education outreach programmes to remote areas to educate locals on the importance of

 $^{^{11}}$ The valley received the same heavy rains but no flooding - a favourable outcome believed to result from the statue's presence. For a fuller discussion, see Butcher 2013b: 180-183.

¹² http://www.livetolove.org/about-us/, accessed 15/06/2016

sustainable living practices.¹³ Drukchen Rinpoche's 'green' credentials are well-recognised: in 2010 he was honoured with Toyota's 'Green Hero' of the year award in acknowledgement of his global environmental leadership.¹⁴

However, elements of a mode of syncretism called "collapse" by Law et al (2013) are also in evidence with the blending of scientific empiricism, merit generation and karmic consequence. In this syncretic mode, there is little concern with epistemological purity; rather, noncohering techniques are tried and tested to see which combination provides the desired result (ibid: 186). I witnessed this blending during Drukchen Rinpoche's offering of a long-life empowerment (tsewang) that followed the record-breaking tree planting attempt, and the speech that accompanied it:

The world is very warm; we need to cool it down by planting trees. Rather than cutting the forests, we should create forests. . . This is one of the initiatives we have started . . . Everywhere in the world floods, disasters and many types of disease are coming. Even in Ladakh this year we have had a flood the like of which has never been seen before in Ladakh. This happened because of our wrong practice; because promises (tamshig) are not kept. Because of the wrong practice, rain and snow are not falling on time. Because of the wrong practice there is no water at the time we need it. Rain and snow fall untimely.... . has to have changchub kyi sems [compassionate consciousness]. When you have changchub kyi sems you will serve both the physical world and chos [the teachings] (HH Twelfth Gyalwang Drukchen Rinpoche, 10/10/2010). 15

Drukchen Rinpoche's discourse resonates with the mythical narrative of decline and demerit. In his speech, he emphasises the suffering that results from a lack of correct practice. Through the offering of the *tsewang*, he connects sustainability and ecology with ceremony, whereby

http://www.livetolove.org/the-5-ventures/environmental-sustainability, accessed 15/12/15.

 $^{^{14}\,\,}$ http://www.livetolove.org/what-s-happening-sidebar/170-our-founder-honoured-asgreen-hero, accessed 15/12/15.

 $^{^{15}}$ Many thanks to Marianne Petrea-Jakobson for sharing the translation of this teaching with me.

the participants receiving the blessing are — in principle at least — oath-bound to revitalize their commitment to the Buddhist teachings through practices of sustainability. Although he did not directly invoke a relationship with chthonic inhabitants in his speech, those attending the ceremony expressed their pleasure at being given the opportunity to participate in the tree planting, extolling the environmental benefits and cleansing effect the forestation would have upon the domain. In this enactment, planting trees reduces the negative pressures of modern lifestyles on the environment in an era of climate insecurity, while also becoming a contemporary form of merit-generation.

The Ladakhi Cosmopolitical

In material written for foreign audiences, Tibetan Buddhist spiritual scholars connect the doctrinal principle pratityasamutpada — dependent origination — with climate instability and the need for ecological protection. According to Buddhist doctrine, karmic consequences arise from dependently-originating causes and conditions, but when invoked in the context of ecology and sustainability there is a tendency to interpret pratityasamutpada as consistent with or even founded upon European philosophical and theological tendencies to separate humans and nonhumans, with agency being a characteristic only of the former. This usage diverges somewhat from the indigenous Himalayan Buddhist interpretation of interdependence that describes a set of beliefs pertaining to the reading of signs and omens, and the forms of divination performed to produce favourable results (Crook 1998: 35; Samuel 1993: 191). The Tibetan term for this is tendrel. One of the ways tendrel can be observed is via the emergence of karmic links between being and domain over many ages and life times: for example karmic connections that establish polities of territory, tulku, and worldly protector deities (Mills 2003: 288; Samuel 1993: 447-449). In this conceptualisation, interdependence explains the abilities that tulku have acquired through the perfection of tantric meditative techniques to take rebirth in specific forms or territories, to intuit spiritual powers, read omens, and manipulate circumstances.

Tendrel more accurately represent the local cosmopolitical framework introduced above, whereby local practices of geomancy and deity pacification combine with Buddhist epistemologies and ontologies

of karmic consequence, which are used to interpret localised events or conditions: for example the condition of the weather. But influential versions of Buddhist modernism and the secular politics governing sustainability programmes remove the cosmopolitical (and the various relationships and interactions within it) from the realm of social activity: the human and nonhuman realms are purified and separated. As a consequence, Buddhist doctrine is domesticated by development underpinned by the sustainability model in order to render it commensurable: it is consciously aligned with a rationalised interpretation of karmic cause and effect that has been appropriated by Ladakh's development administration and authors of popular writing intended for external audiences (e.g. HH Seventeenth Gyalwang Karmapa 2011; Rabgias 1986; 2004; 2009). The epistemology of cause and effect is also domesticated: karmic consequence is rationalised so that it is made to cohere, and thus support, the political identity of the 'green Tibetan' (Huber 1997) as the quintessential 'ecological native'. The attempt to arrest climate change and prevent further suffering is undertaken through appeals to material cause and effect, manifested in the delivery of sustainable development projects and moral imperative to protect nature for future generations.

If, however, one accepts that in the daily life of most Ladakhis, weather is not considered to be independent of a wider *moral* climate, what implications does this have for the effectiveness of climate and conservation interventions that privilege scientific rationality, or that are determined by an incompatible (noncohering) policy model? What modes of syncretism are available which allow the cosmopolitical, the scientific and policy to hang together?

As Law *et al* note (2013: 187), modes of syncretism are not mutually exclusive. They blend together in ways that allow for a variety of interdependent relationships. Specific locations (administrations, monastic authorities, or village pragmatic practice) may be committed to some variant or other, meaning one mode becomes the dominant or overall way of ordering. But Law *et al* suggest looking at the 'ecology of syncretisms' embedded in specific locations or empirical examples (ibid: 188). For example, denial can also include separation: the development administration separates the practices of everyday religion, undertaken to ensure favourable climate, by publically *denying* — or at least refusing

to acknowledge — the existence of such practices. However, when located at the site of local weather-making, non-cohering techniques and practices denied and separated at one location are simultaneously collapsed or mixed in experiments to find solutions at another location: the science of sustainability is combined with the ceremonial performances of cause and effect (for example the offering of the tsewang), and epistemological purity is disregarded in favour of an approach to climate intervention that will produce the most effective result.

A further example is how the flood and climate instability are considered to be signs of sonam nyampsa. In the narrative of decline, scientific and karmic explanations blend to describe causes of misfortune. Scientific explanations are not rejected (although older rural people may not be aware of them), rather climate change is a result of negative karmic consequence, with karmic justice being delivered by the chthonic inhabitants. Similarly, responses and adaptations follow a similar ecological pattern: in the tree planting ceremony, the narrative of sustainability connects with older performances of climate management in a larger web of explanation that — in post-flood Ladakh — privileged the narrative of degeneration. Other examples include geomantic solutions and ceremonial purifications, which operate separately but alongside other types of climate and disaster interventions.¹⁶ In these examples, qualitatively different practices that were separated at the site of administrative governance are collapsed in such a way so that they make sense to those caught up within the assemblage: they are necessary to protect against future disaster and influence the condition of the weather. Thus, they are rendered commensurable in a process of domestication that depends upon this particular syncretic mode of collapse for finding solutions to combat climate instability.

As Himalayan regions respond and adapt to climate instability and the unpredictable situations it produces, more research will reveal more empirical examples that can be examined for additional hybrids, assemblages, or modes and ecologies of non-coherence. What this

¹⁶ Although arguably, ceremonial practice may be necessary to ensure the successes of climate and conservation interventions based upon normative sustainability principles. See Butcher 2015.

discussion has aimed to depict is how the power harnessed through meditative technologies, the Buddhist teachings and the teachers that guard them, ritual and geomantic technologies, blessed and polluted essences, and the environmental protection initiatives couched in scientific explanation all interact in the web of experience from whence climate and nature materialise. Like tendrel, STS deliberations regarding inconsistent hybrids and modes of syncretism also lend themselves to a messy interdependency, and that is why I have used them to frame enactments of climate. As Law et al note (2013: 187), if reality is endlessly non-coherent, then the repertoires for holding things that do not fit together must be similarly flexible. Whilst for some observers epistemological and ontological non-coherence may represent impurity or contamination, for those in the assemblage it is a temporal site of contact or engagement - however transient and unstable - that is brought into being through different enactments of climate that have appeared at diverse geographic, historical and epistemological locations. Tendrel thus lends itself to non-coherence due to the flexibility it has for translating cause and effect: a 'coming into being [that] can be seen as an ontological event, the "enactment" of a particular reality of climate change' (Popke 2016: 4).

Concluding Remarks

Various aspects of practice are observable in moral discourse as well as in the performances of everyday religion, of which nature and climate are but a part. Both the mythical narrative of decline and the scientific narrative of anthropogenic climate change deem the current epoch as one of profound danger. Whilst the 'problem' of neglecting the cosmopolitical may seem like a predominantly anthropological one, the need to understand complex outcomes of development and conservation strategies is increasingly being recognised, with organisations requesting social scientific evaluation of their projects, and academic funding being made available.¹⁷ This suggests that there will be a call for methodological hybridity that can keep different epistemologies and ontologies in 'productive tension with each other'

¹⁷ See, for example, this ESRC-DfID funded project: http://www.iccs.org.uk/measuring-complex-outcomes-of-environment-and-development-interventions/, accessed 27/08/2014.

(Yeh 2016: 39). In this essay, I have attempted to demonstrate the possibilities of an approach that foregrounds hybridity and performance offer for revealing the 'climate multiple' (to adapt a phrase from Mol, 2002). By adopting an approach that allows assemblages of inconsistent logics to [non]cohere, one can observe the consequences — both productive and destructive — when ways of knowing (the discourses of scientific empiricism and the moral imperatives of Buddhist exegesis) and ontologies of pragmatic engagement intermingle and disturb each other, producing multiple climates with multiple effects that somehow hang together.

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Ethnobotany, Commercialisation and Climate Change: consequences of the exploitation of yarsagumba in Nepal

Kamal Adhikari

Introduction

The Rio Earth Summit of 1992 produced Agenda 21 with the ostensible purpose of achieving a sustainable use of natural resources. This action programme was intended to 'halt and reverse the negative impact of human behaviour on the physical environment and promote environmentally sustainable economic development in all countries' (United Nations Conference on Environment and Development, hereafter UNCED 1992: 3). This wide-ranging document aimed to improve the living standards of people in need and reverse the deterioration of the ecosystem through a global partnership for sustainable development (UNCED 1992). At the same time, Agenda 21 advocated that the international community should 'facilitate, in a timely way, the integration of all countries into the world economy and the international trading system' (UNCED 1992: 21). In particular, it specified that open and free international trade in forest products should be facilitated (UNCED 1992). This ethnobotanical study shows that the two aims of achieving a sustainable use of natural resources and facilitating open and free international trade in forest products are not necessarily compatible, at least in the case of yarsagumba¹ or caterpillar fungus (Ophiocordyceps sinensis) in Nepal.

Open and free international trade has resulted in a growing commercialisation and demand for certain wild resources, which has led in turn to an increase in the volume of wild resources that are collected. As Peters (1996) argues, this increase may fuel the over-exploitation and decline of species. Law and Salick (2007) go even further by arguing that Tibetan medicinal plants have been generally reported to be threatened

¹ Ophiocordyceps sinensis is commonly called yarsagumba in Nepali. This spelling is the version used in this article. The Dictionary of Nepalese Plant Names uses the variants Yarsa gumba, Yersa gun vu and Jivanbuti (Shrestha 1998). Some Nepali journalists call it yarchagumbu, Tibetans know it as Yartsa gunbu (Winkler 2013). Other variants may also be found in the literature.

by over-harvesting. *Yarsagumba* may be counted as such a Tibetan medicinal plant, even though it actually consists of a fungus and a dead caterpillar. This fear of over-harvesting has become reality. By 2009, Salick *et al.* were bringing climate change into the equation, by asserting that this could be the final straw in the decline and demise of biological species (Salick *et al.* 2009). This case study critically scrutinises the effect of over-harvesting and discusses the potential impact of climate change on *yarsagumba* in Nepal.

Much data is available on the impact of over-harvesting of yarsagumba, but there is as yet insufficient scientific and ethnographic evidence to produce a precise assessment of the likely impact of climate change on its distribution and future. An understanding of people's adaptation to climate change demands a multi-layered and anthropologically informed approach to the observable connections and disruptions between livelihoods on the ground, global markets and ecological communities. In discussing the potential impact of climate change on yarsagumba in Nepal, this article therefore analyses the actual impact of its widespread commercialisation on household economies, social cohesion, politics and public morality, and the relationship people have with their environment. The article is based on a decade of fieldwork (dealing incidentally with yarsagumba) and interviews with collectors, users, traders and some professional experts².

The history of the exploitation of yarsagumba

Yarsagumba is found in the Himalayan alpine pastures of Nepal, Bhutan and India and in the alpine ecosystems of the Tibetan Plateau. It is also found in the neighbouring Chinese provinces of Qinghai, Sichuan, Gansu and Yunnan (Winkler 2009). It is a biologically complex insect-parasitising fungus. The stroma or fruiting body of the fungus (Ophiocoryceps sinensis) parasitises the larva of a ghost moth (Thitarodes armoricanus) (Winkler 2013). To add to the complexity of the situation, more than one species of fungus and at least 57 species of ghost moths are associated with this phenomenon (Lo et al. 2013, Wang and Yao

² During my work for a variety of organisations conducting high-altitude wetland surveys, ecological assessments and producing environmental impact assessment reports, I encountered *yarsagumba* collectors, traders and others who gave me information about *yarsagumba* and provoked my interest in this insect-parasitising fungus.

2011). The fungus feeds on the insect, and in the spring the fruiting body of the fungus emerges from the head of the larva. In Tibetan, *Yartsa gunbu* literally means summer grass, winter worm (Childs and Choedup 2014, Woodhouse *et al.* 2014, Winkler 2008).

Yarsagumba occurs in cold environments at an elevation between 3000 and 5000 metres (Winkler 2008). It can be harvested for only about six weeks between May and June (Adhikari 2002). It has been estimated that only 1.4% of the total annual production of yarsagumba derives from Nepal, 1.6% from India and 0.5 % from Bhutan, with the remainder coming from Tibet AR (32.1%), Qinghai (39.3%), Sichuan (17.9%), Gansu (5.7%) and Yunnan (1.4%) (Winkler 2013). It has been reported to occur in 27 of the mountainous districts of Nepal, out of a total of 75 districts. The greatest concentration of it in Nepal is in the mid-western districts (Shrestha and Bawa 2014a).

For many centuries yarsagumba has been collected in its natural form and used in Tibetan and traditional Chinese medicine (Winkler 2009), as well as in Nepali folk medicine (Ghimire et al. 2008, Devkota 2008, 2006) as a remedy and treatment for a variety of illnesses and conditions. It has long been highly valued in and around Tibet as a tonic, specifically as an aphrodisiac, and a herbal medicine (Holliday and Cleaver 2008). It is taken to cure kidneys and lungs and is used medically to regulate and support the gonads. It is considered to combat sexual dysfunction, improve stamina, reduce fatigue, reduce tumour size in cancer patients, and help to maintain cholesterol. It also improves the respiratory function and the functioning of the heart (ibid; Zhu et al. 1998).

The fame of yarsagumba increased exponentially after widespread publicity was given to its use by Chinese women athletes who won a series of gold medals in the National Games in Beijing in 1993. These athletes had been given a stress-relieving tonic prepared from yarsagumba and other ingredients including turtle blood during their intense high-altitude training (Winkler 2010, Steinkraus and Whitfield 1994, Hollobaugh 1993). 'Since then, what was traditionally a moderate harvest for domestic use and the Chinese market has become a significant mini-industry in the Himalaya, earning the product another name: Himalayan Gold (Gould 2007: 63). International journalists gave widespread publicity to the supposed properties of yarsagumba and

dubbed it Himalayan Viagra (for example Cantera 2014, Johnson 2013, Jolly 2011).

The repute of the claimed medicinal powers of yarsagumba has led to a large international demand, which has been mainly satisfied by products produced or cultivated in artificial environments. The international demand for yarsagumba in its natural form is largely confined to Chinese communities in the Peoples Republic of China, Taiwan, Hongkong and Singapore.3 Chemical constituents identified from cordyceps⁴ are now used in modern allopathic medicines (Sharma 2004). Some companies cultivate cordyceps in an artificial environment, grown on grains with no involvement of the winter worm. Most of the cordyceps sinensis available for purchase in the west is the dried and ground mycelium derived from the CS4 strain, which is not from Ophiocordyceps sinensis but from Paeciliomyces hepialis, a different species of fungus (Aloha Medicinals 2015, Winkler 2013). In the Aloha Medicinals' laboratory, cordyceps is grown at a low temperature and under low oxygen conditions, just as in its natural habitat. Aloha Inc. is the world's largest cordyceps cultivator with a monthly production of over 175,000 kilograms. It manufactures over half of the total cordyceps consumed in the world (Aloha Medicinals 2015). Mycology research laboratories in England produce cordyceps tablets from a master strain of cordyceps sourced from Nepal (Mycology Research Laboratories 2015). Both companies rely on natural products from Tibet and Nepal, but whereas the American company collected wild cordyceps from Tibet, China and Nepal and then developed a genetically bioidentical strain for cultivation in the USA, the British enterprise imports a master strain of cordvceps in processed powder form sourced from Nepal for its product. Nevertheless, there is still a huge demand for yarsagumba in its natural form.

Even before all this publicity, the Nepali government had recognised the importance of *yarsagumba* by imposing a complete ban in 1992 on its collection, use, sale, distribution, transportation and export (Ministry of Forest and Soil Conservation, hereafter MOFSC 1993). This policy was

 $^{^{3}}$ I thank the anonymous reviewer for this point.

⁴ cordyceps sinensis was renamed as Ophiocordyceps sinensis. However, here cordyceps is used as a brand name rather than genus name.

then modified in a piecemeal fashion, as commercial pressures made it ineffective. In 1995, a penalty of 500 rupees per piece was imposed for possession of *yarsagumba* (MOFSC 1995). On 31 December 2001, the ban on trade in *yarsagumba* was relaxed. It was now allowed to be collected with a tax of 20,000 rupees per kilogram, but was still banned for export in its crude form. The legal provision of processing for export was removed in 2004, and the tax on *yarsagumba* was reduced to 10,000 rupees per kilogram on 26 September 2005. The easing of trade restrictions opened the way for the over-exploitation of *yarsagumba* in Nepal.

With the inflow of money into the countryside following the advent of commercialisation, *yarsagumba* shifted from being an element of local use and the landscape cosmology to being a large-scale tradable commodity, often traded beyond national borders. More than that, its high value on the international market has accelerated the move to a market economy in the countryside that has altered the relationship of the people to their landscape. For instance, whereas previously villagers collected medicinal herbs to use as traditional remedies, now they buy allopathic medicines instead. This trend has been encouraged by the government of Nepal in its pursuit of modernity. Recent government health regulations promote the use of allopathic medicines and discourage the use of remedies based on herbal plants (Cameron 2008). As a result, ethnobotanical knowledge is being lost through disuse.

Social and economic impacts of yarsagumba collection

The recent commercial exploitation of *yarsagumba* has become an issue in Nepali society, with a significant impact on local people in and around the districts where it is found. The appearance of international traders who offer high prices for *yarsagumba* has prompted local people, mainly herders and farmers, to organise themselves to harvest and sell it to these middlemen. During the time of collection, the normal pattern of life of these people is disrupted, as they bring their families out to the alpine pastures and pitch their tents close to their friends. Their children accompany them as their sharp eyes and proximity to the ground make them well-suited to spot the elusive fungus (Adhikari 2009, Winkler 2008). In some areas of Nepal, schools are closed during the collection season (Gautam 2009). Teachers even organise mobile schools

in alpine pastures (Budha 2008). Traders go to the alpine pastures to buy yarsagumba on the spot from the primary collectors. Entrepreneurs open bars, restaurants, casinos and cinemas for the yarsagumba collectors (Giri 2007a). Data show that the monetary value of yarsagumba increased tenfold between 1997 and 2011 in China (Winkler 2013). A recent study by Shrestha and Bawa (2014a) shows that yarsagumba collection in the Nepali district of Dolpa⁵ provides on average 53.3% of the cash income and 21.1% of the total household income.

However, as I was able to observe in the districts of Dolpa, Manang and Sankhuwasabha, only few people make large amounts of money. The majority of locals make just enough for their subsistence, some even lose money and go bankrupt. To trade in yarsagumba requires a high level of investment. The trade is insecure, because the yarsagumba can deteriorate, and transportation is often lacking on the legal route between the highland collection and lowland markets. Traders need to spend a couple of months buying yarsagumba from collectors and then another month to find and make deals with bigger traders (Giri 2007b). In the meantime, their yarsagumba might have become unsalable. The large amounts of liquid cash involved in the trade can also undermine relationships and networks based on trust. Cases have been reported of middlemen cheating their suppliers (Nagarik Reporter 2014). 'Yarsagumba is a very risky business, but because the profits are so high, people are willing to take their chance' (Dahal 2004).

Global trading conditions can also lead to insecurity and risks. In 2008 the price of *yarsagumba* soared because of the Olympic Games in China. As the demand escalated, traders increased their investments in *yarsagumba*. However, in late 2008, the global financial crisis caused *yarsagumba* prices in China to come down with 30-40% (Winkler 2013). The Tibetan border was closed for security reasons and Tibetan and Chinese traders did not make it to Nepal. The value of *yarsagumba* plunged on the Nepalese market (Subedi 2009). A World Food Programme (WFP) report of May 2009 indicated that people of the Mugu district of Nepal suffered badly from the closure of the border, which caused their household income to be cut by more than 60%

⁵ The spelling *Dolpa* refers to a whole administrative district (one of a total of 75 in Nepal). The four valleys of Panzang, Nangkhong, Tsharka and Tarap within Dolpa district are called Upper Dolpo by the Nepali government (Bauer 2004).

(WFP 2009). The local price of yarsagumba went down to 25-30 rupees per piece, compared to 200-250 rupees the previous year (Kantipur Reporter 2009). In the period of commercialisation of yarsagumba, enterprising members of the cultivating community acted as middlemen between the collectors and the incoming traders from China, India and elsewhere. Now these local middlemen were forced to barter yarsagumba for rice, and in Darchula they kept stocks of yarsagumba at home in the hope that prices might go up again. There can be considerable variation in the condition and price of varsagumba between different areas of the country (Subedi 2009). In areas where no cash was coming in for local middlemen to use because of the collapse of the market, yarsagumba was sometimes used instead of money as a means of exchange (Deuwa 2009). Food stocks had depleted in 40% of the households of six village development committees of upper Dolpo (WFP 2009). The local climatic and soil conditions made it only partially possible to meet the annual need for food, with the remainder of food being brought in. Some 5400 people there were relatively insecure of food. They faced a disastrous situation, as many had borrowed large sums of money in the expectation of being able to repay it from the collection and sale of yarsagumba. The economic situation of the people had come to depend largely on the state of the yarsagumba market (WFP 2009).

The high value of yarsagumba has led to conflicts arising out of the trade, and to a significant amount of robbery, disorder and violence. For instance, in Bajhang, a gang of five people wearing face masks and brandishing pistols seized 46.64 grams of yarsagumba and five million rupees from three traders. After this incident, local people felt insecure and feared for their lives and property (Kantipur Reporter 2010). Other cases of violence have arisen from disputes between locals and outsiders. In June 2009, nine people from the Gorkha district who had gone to Manang to collect yarsagumba were killed. The victims were from the Keraunga VDC of the Gorkha district. It was reported that they had been killed by people from the Nar VDC of the Manang district (Neupane 2009, Adhikari and Pokharel 2009). The locals adopted measures of extreme violence to obstruct the outsiders from collecting yarsagumba. In June 2014, in the district of Dolpa, two people were left dead in a dispute between the local community and national park

management committee over the right to collect and retain fees for entry to *yarsagumba* pastures paid by outsiders (Childs and Choedup 2014, Rai 2014). National parks allow the controlled harvesting of *yarsagumba*, but such incidents show how conflict may arise with local communities over the right to issue entry permits to outsiders and over the destination of any fees paid.

Yarsagumba and politics

Yarsagumba has played a significant role in the political life of Nepal. It has become a source of income for some political parties, particularly those with Maoist tendencies. As the Maoists in their peoples' war gained control of large areas of the mountain regions in which yarsagumba grows, they used the resource as a source of finance and taxed the primary collectors, middlemen and tertiary traders heavily (Adhikari 2009, Bell 2014). They formed Gaun Jana Sarkar (usually abbreviated as GaJaSa) or peoples' village governments in all the villages which they controlled. In contrast to the government they had no interest in banning or restricting trade in yarsaqumba so long as they could profit from it. In some parts of the country, especially in the Dolpa district, the collection and trade in varsagumba was completely controlled by the Maoists. The GaJaSa were responsible for practical decision making. The Maoists needed to raise large sums of money to support their peoples' war. As their leader Prachanda said after the ceasefire: 'to make a successful revolution, we need a large amount of money' (Ely 2009). Although they did not specifically say so at the time, yarsagumba could supply a significant percentage of this money. It became one of the most important sources of income of the Maoists, although the exact amount generated by it remains a secret.

In 2004/5, the district forest office in Dolpa collected 172,060 rupees from the trade in *yarsagumba*. After the end of the insurrection, in 2005 to 2006, this figure rose to 3,399,300 rupees, even after the government had halved the tax rate during the course of that same year (Devkota 2008). This tax was levied on 243.83 kilograms but the scale of revenue collection possibilities that was available to the Maoists was very much higher, if one is to believe the assertion of one of the Maoist leaders in 2006 that 1,200 kilograms had been exported from that area (Budha 2007). The scale of possibilities for revenue collection from *yarsagumba*

is indicated by a villager who harvested, bought and sold *yarsagumba*, acting as a small broker in his village.

I acquired 2.03 kilograms of *yarsagumba* in 2006. In one kilogram, there were 3,600 pieces of *yarsagumba*. I got permission by paying 8,000 rupees as a tax to the *GaJaSa*. The wholesale tax was 800,000 rupees from that area, which was set up by the Maoists. There were 100 people who were allowed to do business and all of us collected 800,000 rupees, i.e. we paid 8,000 rupees each (Interview, 29 October 2006).

He sold his *yarsagumba* to big traders from Tibet, Dolpa, Manang and Kathmandu. These big traders also had to pay tax to the *GaJaSa*.

The Maoists effectively set up an alternative parallel government structure at the village level, which they controlled through the *GaJaSa*. The existing chairpersons of the government's VDCs were included in the *GaJaSa* if they supported the Maoist cause, otherwise they were removed from the village. Those considered by the Maoists to be corrupt, feudal exploiters or government spies were first threatened and then removed. If they did not leave voluntarily, they were beaten, or even killed. Villagers did not necessarily oppose this process as the Maoists made legal what had previously been illegal, which was to their mutual profit⁶.

Some information about the methods used by the Maoists in collecting yarsagumba tax is available. They established an organisation to oversee the income from yarsagumba, named Karnali Himalayan Jadibuti Samrakshan Kosh; that organisation took 100 rupees from collectors and 1,000 rupees from traders and provided a pass (Budha 2007). Rival checkposts were set up by the young communist league, the sister organisation of the Maoist party, alongside the police checkposts at strategic district border points. The Maoist checkpoints then exacted a yarsagumba tax (Kantipur Reporter 2007a). In the Dolpa district, the Maoist took tax at a flat rate of 20 rupees from yarsagumba collectors in the pastures they controlled. It has been estimated that about 69,900

⁶ This information is based on personal observations during fieldwork in October-November 2006 in the district of Rukum in mid-west Nepal.

collectors visited the principal pastures in the Dolpa district in 2006 and collected around 700 kilograms of *yarsagumba* (Devkota 2008).

Further insights into the Maoists' taxation of yarsagumba are provided from an interview with a Maoist representative of the village of Makalu in eastern Nepal on April 2007. According to him there had been no master plan, but policy and practice evolved in an impromptu manner. Initially, they had taken tax from traders whom they met on the way, as they did not have any checkposts. His plan was to make more money from yarsagumba by establishing checkpoints in two or three places. The Maoist village representative was sure that they could raise the tax take from 50,000 to 200,000 rupees if they managed to tax all traders. By the time of the interview on 25 April 2007, the Maoists had entered the government and controlled the Ministry of Forests and Soil Conservation of Nepal. The village representative was now not sure whether or not to collect tax on the yarsagumba trade and was waiting for party orders. In a report for the US government, Robert Gersony states that at an early stage local Maoists inserted themselves as intermediary dealers and profited from this. When the Maoist leadership learned of this practice, they stopped it, returned the trade to its traditional private dealers, but confiscated and remitted the illgotten gains to the Maoists central treasury (Gersony 2003: 14).

The trade in *yarsagumba* contributed significantly to the development of corrupt practices among government officials in Nepal. Some *yarsagumba* has been exported legally because tax had been paid on it to the government of Nepal. However, the complications and the frequent changes in government policy have created a situation where the officials responsible for monitoring the process found it easy to take bribes to speed matters along or overlook irregularities and underpayment. In the case of *yarsagumba*, speed is essential when obtaining the necessary permit, because it deteriorates or perishes if it has not been properly dried⁷. Allegations of such bribe taking have surfaced in the national press, and rumours abound. For instance, a district forest officer in the Bajhang district had allegedly taken a bribe of 1.6 million rupees to issue an export permit for 25 kilograms of *yarsagumba* (Khadka 2007). It has been alleged that even when

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 $^{^{7}}$ Personal conversation with the Maoist village representative on 29 October 2006.

yarsagumba is exported illegally, police and other officials take bribes to allow the illicit produce through without proper checks (Kantipur Reporter 2007b).

Sustainable exploitation of yarsagumba

The growing commercial exploitation of yarsagumba has led to a steep rise in harvesting which has caused some scholars to raise concerns about its sustainability (Childs and Choedup 2014, Shrestha and Bawa 2013, Weckerle et al. 2010, Winkler 2009, Cannon et al. 2009, Sharma 2004). Conversations with individual collectors in 2006 supported these concerns. Over-harvesting impedes the achievement of the sustainable use of natural resources as advocated by the Rio Earth Summit of 1992 and the Agenda 21. For instance, when people use spades and shovels to dig out yarsagumba, they make holes and also destroy the plants among which it grows (Shrestha et al. 2013, Cannon et al. 2009). Such overexploitation has made the alpine environment more fragile and subject to erosion, and has done environmental damage (Woodhouse et al. 2014, Winkler 2005). Additionally, firewood is needed for the tens of thousands of people who go to the area and pitch their tents for a month or two. The increased use of firewood has degraded the vegetation in areas where only few trees exist (Cannon et al. 2009). Environmental pollution has also been noticed, as people leave plastic bags, bottles and other non-degradable items behind (Devkota 2009).

The lure of short-term gain has taken priority over any concerns for sustainable exploitation. Future harvests of *yarsagumba* depend on the spores from a parental generation of the fungus getting into the environment. The quality of *yarsagumba* depends on the firmness of the larvae and the length of the stroma. Its value is at its peak before the stroma begins to produce spores. Sporulation continues throughout the life cycle of the fungus. At a late stage in life, the larvae of *yarsagumba* become soft and they shrink during drying. Consequently, at this stage, the *yarsagumba* is of much less economic value. However, it is still of great ecological value as the capacity for spore dispersal continues for several weeks (Winkler 2013). A number of studies have reported a decline of production in the district of Dolpa in Nepal (Chhetri and Gotame 2009, Shrestha *et al.* 2013, Shrestha and Bawa 2013, Shrestha 2012). The sharp rise in the market price of *yarsagumba* has intensified

the pressure to collect it, even including the less valuable older specimens. In the absence of reliable annual data from many production areas it is difficult to come to firm conclusions on the overall resilience of yarsagumba. Winkler (2013) has noted that there is a striking lack of scientific data on sustainability and also of research on the consequences of intensive harvesting of yarsagumba, with particular reference to China. Winkler (2013) earlier believed that the production was stable or had even increased, but more recent research visits to production areas in the Tibetan Plateau have made him more pessimistic about the resilience of yarsagumba. The threat to its sustainable utilisation appears to extend beyond Dolpa.

The over-harvesting resulting from growing commercial pressures is a real threat to the sustainability of yarsagumba. However, the harvesting of yarsagumba has sometimes been constrained by traditional cultural and religious practices. In his anthropological study of a longestablished Tibetan migrant community in Gyasumdo in the Manang district of Nepal, Mumford (1989) discusses the reciprocal exchange relationship of the local people with the klu, the underworld serpent deities. If people refrained from polluting the landscape and the environment in which they lived, performed rituals and made offerings, the deity would in return provide wealth, health, shelter and security (Mumford 1989). In the Gorkha district of Nepal, Mount Manaslu is considered to be the residence of the local protector deity and Lamas have issued a decree prohibiting the collection of yarsagumba there (Childs and Choedup 2014). Yarsagumba was considered to be treasured by local gods and spirits, rather than a natural resource to be exploited and traded. In some Buddhist areas of Tibet it was considered taboo to collect yarsagumba, because digging the earth kills insects, which was believed to be a sin (Woodhouse 2012). Jolly (2011) reported that some people in the Manang district of Nepal also believed it was a sin to trade in yarsagumba.

In some areas people have realised how harmful the environmental damage caused by the unrestrained collection of *yarsagumba* is to their long-term interests. In accordance with their beliefs that the alpine pastures where *yarsagumba* grows are gods, and *yarsagumba* itself is a gift of god, people in far-west Nepal continue to collect *yarsagumba* in a respectful manner. In a documentary film of 2009 made by the Asia

Network for Sustainable Agriculture and Bioresources (ANSAB), people can be seen performing village rituals before leaving for the alpine pastures. Local villagers fixed strict rules and regulations for the collection period. Activities such as drinking alcohol, gambling and loud singing were prohibited. Collecting is conducted as a religious rite and menstruating women were prohibited from it and confined to their tents. To avoid any bad incidents, the gods were invoked and propitiated before collection.

In some other areas, local communities have seen local regulation of harvesting through community forestry programmes as an answer to the lack of effective government action and regulation. With the help of three forest users' groups (FUGs), regulations were re-instituted in Majhphal VDC in Dolpa district. After being given control over their areas, the FUGs decided to levy an entry fee of 100 rupees per collector and a conservation fee of 5,000 rupees per kilogram for yarsagumba. Faced with the problem of guarding forest areas from continued illegal and unmanaged collection, the FUGs reacted by forming four small teams with ten young and energetic FUG members to guard entry points to collection areas. In contrast to the previous failure of the district forest office to regulate varsagumba collection and collect taxes, the three FUGs were able to control access to the community forests and initiate effective harvesting regulations, resulting in the collection of about 800,000 rupees from fees in the first year. The resource was protected and FUG members received economic benefits⁸.

In Nubri and Tsum in Gorkha district, local residents have also introduced their own regulations. In contrast to Dolpa, outsiders are not allowed to collect *yarsagumba* and policies are decided through public meetings. All have to stick to the same start date for harvesting *yarsagumba* and all are subject to the same level of taxation, with the revenue being spent by committee to benefit the whole community (Childs and Choedup 2014). Such initiatives are a marked improvement over the situation elsewhere in Nepal, where collectors can do as they please and put immediate short-term gain over the long-term conservation of *yarsagumba*. Local management can benefit

8 Available from: http://www.ansab.org/success_cases.php?id=22 Accessed on 14 July 2009.

communities, collectors and traders can still make a reasonable profit, and the resource can be exploited in a sustainable manner. However, this decentralised local management and control is not typical of Nepal.

In contrast to the general absence of effective government action and regulation in Nepal, Bhutan has instituted a national-level management strategy (Cannon *et al.* 2009). Having relaxed the laws on the collection of *yarsagumba* in 2004, it initially limited the collection to yak herders in *yarsagumba* areas during the month of June, with only one member per household participating. This limitation was relaxed in 2008 and much more power in decision making was moved to the local level. The Bhutanese government only allows *yarsagumba* to be sold at authorised auctions, by authorised collectors. Buyers can only be Bhutanese nationals, although they may sell to the international and to the domestic market. A government levy on sales raises money for environmental protection programmes (Cannon *et al.* 2009).

Climate change and yarsagumba

The links between bioclimatic factors, the distribution of plant species, and the impact of climate change are the subject of ongoing scientific research. This research is inevitably long-term and is still at an early stage, surrounded by much uncertainty. Global warming is an aggregate statistical construct, based on different information inputs from the entire globe. Even in Nepal the degree of global warming varies from district to district, it is at its highest in the mountains of the Himalayas. According to the Intergovernmental Panel on Climate Change (IPCC) the average temperature in the Himalayas rose by 1.5°C from 1982 to 2006 (IPCC 2013). In their pioneering study of the impact of climate change on the potential distribution of yarsagumba in the Nepal Himalayas, Shrestha and Bawa (2014b) assert that the Himalayas were subject to three times the global average of warming in that period. In the Himalayas the rate of warming varies across seasons, being greater in winter at 0.07 °C per annum, as opposed to an average increase of at 0.03 ^oC per annum in summer. Over a 25-year period, the average annual summer precipitation has increased by 187 mm, but the winter precipitation has decreased by 17 mm per annum. In practical terms that means that the winter months are warmer and drier and the monsoon starts later. The summers have become wetter and the winters

drier (Shrestha *et al.* 2013). According to regional climate models, the temperature and precipitation in this region will continue to increase with an impact on the distribution of biodiversity (Shrestha and Bawa 2014b).

In the northwest Yunnan context, Salick *et al.* (2009) have indicated that alpine pastures, with their rich biodiversity, are particularly susceptible to climate variations threatening the medicinal plants which grow in these pastures. Studies from different parts of the world have already shown that climate change is impacting mountain plants and animal species, for instance in the Swiss Alps (Walther *et al.* 2005). A dendrochronological study in central Nepal has shown that the tree line is moving upwards to a higher elevation (Gaire *et al.* 2014). Aryal (2013) reports that animals are now grazing at a higher altitudes in Upper Mustang, following an upwards move of the vegetation on which they feed. Snowfall has also been affected, with a reduction in its frequency and amount (Tse-ring *et al.* 2010). There have been alterations in the times at which snow falls and melts, with a knock-on effect on the harvesting time of *yarsagumba*, which only appears after the snow has melted (Giri 2008).

The distribution of *yarsagumba* is influenced by temperature and is therefore potentially affected by climatic alterations in the Himalayas (Shrestha and Bawa 2014b). Winkler (2013) relates that a poor harvest in 2009 in Tibet AR was attributed by many collectors to an unusually dry spring and a late onset of the monsoon rains. However, historical and present data on the species distribution of *yarsagumba* is sparse. Consequently, there are no facts on which to base definitive conclusions about the impact of climate change on *yarsagumba* and its distribution. Much further research is needed before an informed evaluation can be made of the risks to *yarsagumba* that are posed by global warming.

Faced by this sparsity of empirical data, Shrestha and Bawa (2014b) used a MaxEnt model⁹ to map the potential present distribution of yarsagumba and to predict distribution changes in the light of assumptions of future climate change. Their model shows that about 6.02% of Nepal provides a habitat suitable for yarsagumba in 26

 $^{^9}$ This refers to the Maximum Entropy Modelling software (see Philips, Anderson and Schapire 2006; Philips and Dudik 2008).

mountainous districts, with the greatest concentration in the midwestern districts of Dolpa, Rukum, Manang, Myagdi and Jumla. Their model shows that the potential distribution of *yarsagumba* will extend under all of the future climate scenarios which they employ. There is some reduction in habitat area in eastern Nepal, but this is more than made up for by habitat expansion in districts such as Dolpa, Mustang and Mugu in western Nepal (Shrestha and Bawa 2014b). In other words, they predict that future climate change will create additional new suitable habitats for *yarsagumba*. However, this is no guarantee of a rise in production. As alpine plants move upwards in response to rises in temperature, new plant assemblages can be formed, with increased competition and the possibility of resultant alpine plant extinctions (Salick *at al.* 2009).

Shrestha and Bawa's (2014b) research indicates that the threat to yarsagumba from global warming may be smaller than is often thought. However, their work is based on predicted computer modelling rather than observed facts. Their species distribution model provides useful information and can also serve as a starting point for further research and policy design. There is an urgent need of ecological surveys to be carried out over an extended period of time, in order to establish the reality on the ground.

Conclusions

Agenda 21 assumed that global free trade can be combined with sustainable utilisation of natural resources. The example of yarsagumba shows that this is not necessarily the case. In Nepal yarsagumba was previously collected on a limited scale for use in domestic ethnomedicine, but the relaxation of trade restrictions led to hordes of local villagers and outsiders descending on alpine pastures to collect yarsagumba in order to sell it to national and international traders on the Chinese market where it is a highly priced commodity.

These short-term gains can transform the lives of villagers. Local purchasing power has increased and new commercial goods, educational and entrepreneurial opportunities are made available. However, some villagers have lost out and people have become dependent on the vagaries of the international market. Allopathic medicines have become readily available, but traditional ethnomedical

knowledge has been lost. Social cohesion has been affected. Trust relationships and networks has beeb undermined. The high value of yarsagumba has encouraged thieves and led to violence and social conflict. At a national political level, its profits helped to finance the peoples' war of the Maoists. The large amount of cash involved in the yarsagumba trade has contributed to the development of corrupt practices among government officials and conflicts among local nomads and collectors.

Much environmental damage has been done by collectors. Yarsagumba is being collected at all stages of its life cycle. Holes are being dug in alpine pastures with a consequent risk of erosion. Collectors set up camps, collect wood for fires and leave un-degradable rubbish behind. Such practices pose a real threat to the sustainability of yarsagumba. Global warming potentially poses another threat. Undoubtedly, the Himalayas are becoming warmer. Glaciers have been melting and the snowline has moved upwards. The treeline is also reported to be moving upwards and vegetation patterns have changed. The actual impact on the distribution of *yarsagumba* is as yet unclear, in the absence of historical and present data. One study has used a model to predict that the potential distribution of yarsagumba in Nepal will alter but can also extend, with a decrease of potential habitats in the east of Nepal being accompanied by an increase of potential habitats in the west. Even though these predictions are based on models rather than on empirical data, they indicate that the impact of climate change on yarsagumba may overall be positive rather than negative.

Climate change may not turn out to be a threat to the continued existence of yarsagumba, but unrestrained commercial exploitation could very well drive it to extinction in its natural environment. In Nepal, government regulations have proved to be ineffective. For the local people whose livelihoods are dependent upon local resources including yarsagumba, a sustainable utilisation approach is urgently needed. The harvesting of yarsagumba has sometimes been constrained by traditional, cultural and religious practices, but only in a few areas. However, the belief that yarsagumba is the treasure of local gods and spirits has now been eroded by the move towards a market economy in the countryside, as the commodification of yarsagumba has changed the relationship between people and landscape. Local actions by forest user

groups have been effective in some areas, but this is the exception rather than the rule. The Bhutanese experience shows how locally focused resource management may be the key to the sustainability of yarsagumba. As Winkler (2013) points out, informed local decisions depend on communities having enough knowledge of the reproductive needs of yarsagumba to ensure that each year there is sufficient spore production.

A sustainable future for *yarsagumba* is important for the welfare of large areas of rural Nepal. More ecological surveys are needed over an extended period to establish the reality of the distribution of *yarsagumba* on the ground. Although educational programmes about the reproductive cycle of *yarsagumba* may achieve positive results, local perceptions, beliefs and practices should also be important elements in any strategy for the sustainable utilisation of resources. Traditional ecological knowledge should enhance the capacity to be resilient in the face of complexly interlocked processes, whether these are the effects of climate change, of socio-economic pressures to profit from environmental resources or whether they result from the lack of effectively enforced regulations.

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Encountering Climate Change: dialogues of human and non-human relationships within Tamang moral ecology and climate policy discourses

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Abstract

Climate change is fast becoming a dominant narrative for contemporary understandings of Himalayan societies, and the concerns for the wellbeing of communities situated in varying degrees of vulnerability to extreme climate events. This article questions how climate change discourse translates into lived worlds in such places. It reviews arguments that challenge the easy transfer of knowledge about data and models into contested political ecologies of territorial claims and sovereign powers. Using a longitudinal series of ethnographic vignettes, the theme of human dimensions of climate change is explored to connect debates in critical social theory of the Anthropocene with the dialogical remonstrations of communities who experience climate change policies as a new stage in state encroachment on local livelihoods and wellbeing. People in northern Nepal speak of needing to cultivate reciprocal connections to territorial sovereigns, while being aware of not knowing how to act in uncertain political and economic times.

Introduction

In the run-up to December 2009s Copenhagen COP 15¹ talks, mistakes in the data concerning rates of Himalayan glacial melt caused a furore that acquired the label "Glaciergate" (Thompson 2010). Suspicions about the role of climate scientists' and panel chairs' strategic goals helped create a media storm that drowned out a reflective debate about science and action that interdisciplinary scholars had been contributing to by asking 'What kind of a thing is climate change?' Researchers across disciplines

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OP talks = United Nations Framework Convention on Climate Change annual "Conference of the Parties"

have brought a tremendously mixed bag of factors, indicators, and trajectories to try and answer this question. These include glacier melting rates, maps of temperature pattern shifts, species on the move, vulnerabilities of a new normal in rural and urban life, factors affecting adaptation and mitigation, and even climate innovation policy agendas. Following this wave of data trends and policy responses came some profound and challenging works on rethinking the parameters of appropriate knowledge for the newly named era of geology, the Anthropocene (Crutzen and Stoermer 2000). Now that we can clearly perceive human imprints in the geological profile of planetary evolution, the classic modern divisions of the natural and social sciences and humanities have been revealed as insufficient to the task of apprehending the kinds of phenomena our attention is necessarily being drawn to. A range of expertly assessed positions of insight enabled by our modern instruments of data sensing and modelling have produced a scenario of climatic trends with transformative bio-physical consequences. We recognise these as coming from and feeding back into human-accelerated trajectories of geo-political hazards veering toward eco-humanitarian disaster and misfortune.

The strong message coming from meteorologists, earth scientists, and biologists is that something out there is going on. The finger of blame points primarily at industrial carbon emissions over the last 250 years (Crutzen and Stoermer 2000). There has for long been a strong critique of the extractivist values and effects of predatory capitalism in colonial and post-colonial eras. These political economic forces have exploited environments and peoples leaving them despoiled, degraded and polluted rather than delivering prosperity and development. But now the signature of industrial society's combustive agency in the evidence of global warming has brought to bear an objectivity on the question of where we are in time and space, and what on earth we are doing. More precisely, what are we doing to the earth, and who are the anthropogenic 'we'?

For theorists like Dipesh Chakrabarty, '(t)o call human beings geological agents is to scale up our imagination of the human... There was no point in human history when humans were not biological agents. But we can become geological agents only historically and collectively' (2009: 206), while for public commentators like Naomi Klein

(2014) quite simply 'this changes everything'. Who can best speak about the phenomena we are witnessing? A strong institutional structure of natural science continues to claim privileged knowledge about the evidence of climate change in terms of temperatures and precipitation, while other commentators have made the case for reorganising knowledge of climate change and the environment more generally among a wider range of theoretical and methodological forms of enquiry (Palsson et al. 2013, Wynne 2010). The deeply social basis of the conditions of possibility for climate science is only hidden from view in climatologists' representations. This can be described in Latour's (1993, 2004, 2013) terms as a purification effect of engineering observable facts in the natural world. The social basis of representing observable climate processes can be seen in many forms, such as the organisation of data to address the socially determined question of whether a 2-degree rise in global warming will be exceeded this century (Carter and Charles 2010).

There are many ways in which climate change can reorient us away from the cosmological starting points of positivist science, including that of constituting a separate and scientifically knowable world of nature "out there." This article picks up these questions and treks into a region where the idea of a natural world has been introduced and imposed on very different kinds of cosmological notions and ways of relating to the non-human. In ethnographic fact nature has had very mixed reviews in indigenous perceptions (Campbell 2005). I am asking 'What are people seeing?' and 'What are they hearing?' in conversations, and in encounters with other people's talk of climate changes and their consequences.

The orientation of this article is ethnographic, and it approaches the enquiry into climate change as a socially embedded set of discourses. It arrives in a power-infused struggle of ethnic, economic and ontological dimensions. Mainstream mitigation and adaptation policies enfold climate change discourse with parties of winners and losers, who can be predicted and reconfigured by climate modelling targeted on analyses of poverty, livelihood and infrastructure planning. This discursive configuration of Himalayan climate change has an epistemic status that is characteristic of the region's relationship to theories of environmental crisis: there is a sense of problem-manageability combined with an exceptional global panorama made possible from the

high ground where its special vantage points enable a whole world scene to be imagined, surveilled, and the principles of cause and effect to be generalised. Seeing the Himalayan region as The Third Pole makes a substantive claim for attention when the region is pitched as climatically pivotal in shaping the central Asian frontier of the great Siberian depression and the Bay of Bengal monsoon. In this fulcrum hydrology, the third pole carries a payload of demographic and geopolitical consequence as the source of the river systems that nurture the bio-regions and livelihoods of a third of the planet's human population, and water the two large neighbouring emergent economies who are competing for hydro-power and other resources.

The distanced and commanding landscape perspective achieved from the heights of quantitative science concerning climate change phenomena cannot, however, maintain supremacy over the variety of knowledge systems that co-exist in the Himalayan region. As in previous debates over the Theory of Himalayan Environmental Degradation (Ives and Messerli 1989), it is the gaps in data for arriving at general climatic patterns that are deserving of note.

The warming in the greater Himalayas has been much greater than the global average: for example, 0.6 degrees Celsius per decade in Nepal, compared with a global average of 0.74 degrees Celsius over the last 100 years... There is a severe gap in the knowledge of the short and long-term implications of the impact of climate change on water and hazards in the Himalayas, and their downstream river basins. Most studies have excluded the Himalayan region because of its extreme and complex topography and the lack of adequate rain gauge data (Eriksson et al. 2009: 1).

This article therefore picks up the trails of enquiry laid out by Chakrabarty in noting that

(g)eologists and climate scientists may explain why the current phase of global warming—as distinct from the warming of the planet that has happened before—is anthropogenic in nature, but the ensuing crisis for humans is not understandable unless one works out the consequences of that warming (2009: 213).

Thinking about the human consequences in Nepali society anticipates clashing perspectives of truth regimes, and the contours of vulnerability conditioned by deep socio-economic and cultural inequalities. Hierarchies of knowledge and power influence practices of relatedness through which people negotiate, compromise and take refuge in radical specificities of place (housing styles, customary foods, communities of belonging). They find homes within contexts of immensity and great divides (of sub-tropical/ alpine contrasts, systemic differences in material culture, and in dispositions towards alliances across borders). There are historical struggles of meaning and power at play on the battleground of climate change policy practice, but as Shove (2010) effectively argues, we cannot simply reduce these struggles to meaning and power. My intention is to use ethnography to move towards a multi-species approach to the 'feral anthropocene' (Tsing 2016), and support Hulme's (2010) case that there can be no return to normal. However, the evidence for key actors and organisations having the ability to recognise this new state of affairs, and reorient themselves to new circumstances of expertise is not so promising.

Appeals from Nepali science and development organisations for climate-smart policies and projects understandably replay the narratives of powerful global institutions and donor preferences. This risks introducing climate change as a new policy orientation like any other, and for organisations to continue as if nothing has really changed, apart from rearranging the buzzword vocabularies of development need. Documents from ICIMOD (the International Centre for Integrated Mountain Development), for example, standardly appeal for sound science with the goal of reducing uncertainty. In this line of reasoning, institutions such as ICIMOD have been crucial in formulating the problem and the opportunity of climate change in the region. The outputs of many interdisciplinary institutions present approaches intending to reduce scientific uncertainty, and propose managerialist interventions for governing risk and vulnerability. Often referred to as ecological modernisation, this can be seen as a set of technological, regulatory and market mechanisms by which global climate funds can be accessed. As something of an afterthought to the science and market regulation agendas, interdisciplinary collaboration is frequently

invoked to acknowledge how participatory and devolved natural resource governance based on equity and inclusive development have become the accepted paradigm for local community engagement. This has been the case in Nepal, especially since the general effectiveness of community forestry became recognised in sustainable development thinking.

By contrast, there has been a bolder opening up of frameworks of enquiry in the engagement of critical social science with climate change, to address the fact that 'uncertainties of scientific knowledge claims, including climate change models, are seldom acknowledged in public debate' (Barry et al. 2008: 37, cf. Jasanoff and Wynne 1998). This will not be news to followers of the debates of the 1980s and 1990s known as the Theory of Himalayan Environmental Degradation (THED), and of the work of Joelle Smadja and her collaborators in the meticulous studies contained in the volume *Histoires et Devenirs* (in English *Reading Himalayan Landscapes over Time*). Lessons from European collaborations on Himalayan human-environmental change over 25 years have shown the value of rigorous in-depth and multi-disciplinary study, using local knowledge systems and historical records as a vital method to temper the hasty assessments and simplistic remedies for poorly understood crises.

This article therefore situates the social science of Himalayan climate change in historical genealogies of debate on social and ecological change, but aspires to move beyond the repetition of environmental crisis narratives as previously articulated (Grove 1995, Guthman 1997, Saberwal 1999). While it draws on the lessons learned from the success narratives of recovery after prior assessments of ecological crisis, such as through community forestry programmes, it is the diversity of epistemic registers among climate change discourses and their mutual illegibility which makes evident barriers to the democratising of climate science, and to recognising the knowledgepower and ontological dimensions of the phenomena. At issue within this overarching framework are questions of how to take stock of what matters to a great diversity of people in relation to territories, and those territories' potential to change and be viewed through new lenses of value and vulnerability. This takes place in the ways people go about recognising, measuring and acting on their assessments of what is at

risk, invoking compelling presences in the shape of data sets, institutional capacities or spirit sovereigns' mood-swings.

Climate change beyond nature: field encounters

In its standard configuration, climate change is not easily accessible to social scientists. What do we know?² What anthropologists can bring to the discussion is an ethnographic sense of the layered alternatives and frictions that are at work when climate change discourse is translated into words, relationships and political economic processes that can have local currency – in places like northern Nepal, where I have been doing research for over twenty five years, among the Tamang-speaking communities of Rasuwa District.

Elsewhere (Campbell 2013), I have argued that the idea of nature as operated by modernist knowledge practices does not figure in Tamang lived worlds. Nature conservation specifically, is a state enactment of territorial dispossession (in the form of national parks), turning a place of multi-species relational interaction into a property regime of scarce resources. With climate change, it is not aggregate global warming that affects human ecology, but rather strange weather as it is directly experienced, and its consequences for livelihoods and relationships with non-humans in a landscape of sentient ecology that is spoken about.

My first direct encounter with climate change in the field came in March of 2009. It was an experience that shook my research attention, and my sense of what was an appropriate way of proceeding in the circumstances. It brought me to think about a new set of material chains of effect and their political and cultural consequence, rather than those I had been expecting to follow up at the time, which had been in relation to the aftermath of Nepal's civil war. The most immediate area of social life affected was the local food system.

Twenty years earlier I had begun intensive research into subsistence farming in Rasuwa district, documenting the meticulous crafting of terraced field systems into productive landscapes supporting Tamang-speaking communities with various species of

² There are of course many impressive collective efforts to make a difference in this respect, and just to mention meetings in the UK, the CRASSH 2012 conference on Climate Histories was exceptional in exploring the contributions of arts and social sciences. The Royal Anthropological Institute recently held a conference on climate change in May 2016.

livestock and much species diversity in their staple crops (Campbell 1993). The entire system was predicated on seasonal predictability. In March 2009 things were unrecognisable. Not a drop of rain had fallen since the end of the previous monsoon. Unirrigated mountain agriculture depends on occasional winter rainfall. The terraced fields which at this time should have supported ripening wheat and barley in one area, and in another area should have just begun showing newly germinated maize seedlings, instead revealed a brown, dried-up fan of unproductive mountainside.

I had visited the area two years earlier, when the end of the civil war had brought some reasons for optimism in the country, and people were rebuilding their communities and livelihoods. On this visit, however, the generation of people I had known since the panchayat era pointed to the parched soils and told me 'nyima shijim praba' ('we are walking dead'). The civil war and the effects of out-migration for work abroad had already impacted severely on the villagers' capacity to keep going with subsistence farming and livestock in their transhumant agro-pastoral system, but this drought was a hammer blow to these people's own sense of having the capacity to feed themselves. The civil war had been rhetorically handled by the Tamang villagers with some degree of pragmatic distance from the conflict's central objectives of state capture. They used the trope of 'we are poor mountain people. We have no rich here' to deflect attention from both security forces and insurgents. The main conflict was between leaderships made up of the same ethnic group of Parbatiya Nepali speakers, and so could be consigned within a definite subset of national society, based at lower altitudes and occupied with their own domains of interest, to which Tamang village life was highly marginal.

With this climate change business though, things were far more serious. The entire basis of Tamang subsistence systems was evidently at risk. This is constituted in a capacity for self-reproduction through cultivating crops as an element of cultivating relationships with territorial deities. Through these ritually explicit connections, the soils and fields, animals and plant species are accessed and fertility renewed on a calendrical basis. Climate changes were taken as signs of relational breakdown and communicative impasse, accompanied by nefarious wilful agents causing harm. This non-human threat was not containable

as an effect of the same old structural neglect from the developmental state, but signified a post-normal environment of relational unease.

It was not simply a matter of village agriculture failing to produce enough food to feed most of the people most of the time. The failure of the wheat fields due to lack of winter rain took on further significance as the Tamang house gods were also going to be deprived of their food. In the festive domestic ritual of chang phit, the first fruits of the April wheat harvest are made into a beer. The origins of crops that have travelled on people's migratory pathways (from Wi Samye in Tibet down to Gyagar in India, and back up again to the present village site) are chanted before a wooden pot containing some of the new harvest is hung on the ridge pole of the house, as an offering to the clan god of the male owner of the house (tim ki dabo). With the house god (tim ki lha) having his first share, the human residents could then themselves join in imbibing the nourishing brew, and later eat a meal of the waken (Nep. gahun ko dhero). This was one of the turning points of the year in terms of the villagers' on-going renewal of activities and relationships in the annual cycle of the local food web. When academic discussions are held over the impacts of climate change on indigenous and local people's food security, it is frequently in terms of sheer food availability that this issue is perceived to matter. But there is far more at issue than mere supply of calories. Rather than just security, this is about relationships of food sovereignty (cf. Edelman 2014, www.foodsov.org), which are the lived parameters of connection, value, preference and care that enfold the activities of people maintaining and growing their own social food systems.

Due to the drought in 2009, other strange weather events were taking place. The sky was actually full of smoke. Villagers were telling me about the fires in the higher forest. On one trip to visit a friend's planned site for a high altitude dairying and cheese-making unit, we went to inspect the source of the perennial village steam for accessing water. It was just a damp patch of mud rather than the continuous trickling flow it should have been. Walking back down the mountainside in the late afternoon our small group stopped at one of the high pastures where the stone and plank bases of a cluster of temporary herding shelters were situated. At one corner a *lungtar* flag fluttered, but there was hardly any grass for cattle to browse on, and looking up past

the *lungtar* pole, the sky was an eerie bronze colour from the accumulation of smoke in the close atmosphere emanating from the smouldering forest. The afternoon sun was dimly visible in shape through the haze. My companions told me the particular site we were stopped at had a very capricious *shyibda* (Lord of Soil). If they were to go ahead with the dairying unit, they would need to be wary of this place. Once, a cow of one of my companions had disappeared from this area for a whole week. They had given up hope of ever seeing it again and presumed it had been taken by a leopard or fallen over a cliff. Then all of a sudden it showed up, none the worse for wear. Mysterious happenings and twists and turns of fortune that affect living beings in environmental interactions are mostly attributable to these *shyibda* deities, responding to people's behaviours in their domains.

A couple of days later, I was with the same companions in the village house, drinking tea and talking about their problems with getting permission to locate their proposed dairying unit within the Langtang National Park. A wind had picked up, making the tin roofing sheets rattle, and as is normal on such occasions, running repairs were made. Restraining wires and ropes were pulled taught, and some rocks were rearranged from above to stop the tin sheets from banging and flapping about. The gusts of wind only got worse, and after some calling to and fro with people in the street and through the walls to the next-door house, we abandoned our house to escape the very severe winds that were by now hurling rocks and other objects through the air. As we saw tin sheets peeling off a roof across the way, we dived down into a secure basement room of a neighbour and joined a huddle of about twenty people.

For about an hour the wind raged with a truly fierce intensity, leading to collective gasps of breath and anxious utterances of concern for property and persons. We eventually emerged to a scene of blasted debris and devastation, with many outhouses and lean-to shacks smashed up. By the end of the day conversations had passed up and down the valley, with a growing consensus emerging that a *shyibda* whose sacred domain is located high above the village of Thulo Bharku was most likely responsible for sending the terrible wind. This was perceived as retribution for people having caused fires in forests in the Thulo Bharku area. The fires had encroached into the god's intimate

sacred grove, enraging the territorial sovereign and provoking this outburst of demonstrative power, reminding people to behave properly and with respect for the gods of place.

Impacts and opportunities of climate change

There is a sense of vulnerable connections in contemporary Tamang livelihoods in northern Nepal, significantly pre-dating the terrible earthquake of 2015. Here the state, the market and strange weather converge in twists and turns of accidental and patterned effects, which the different generations and genders try to make sense of and do something about. There are direct impacts of climate change in the frequency of failed winter crops, and dried-up pasturelands. There are indirect manifestations of climate change in the ways that state institutions have re-equipped themselves with this new scientific and policy agenda to challenge the entitlements of villagers and rural citizens to forests and pastures in national parks and other protected areas. Climate change policies can bolster authoritarian tendencies in state environmental practices. There are combinatory effects of political economy (most notably labour migration) and winter drought that conspire to leave the older generation describing themselves as 'walking dead', and vesting women with an inordinate burden of keeping domestic life going at depleted capacity. On the other hand climate change offers the educated Tamang youth opportunities for contact with international NGOs, renewable energy technology initiatives, conservation advocacy and eco-tourism. Climate change can provide a discursive basis from which vulnerable connections in remote areas can be remade. The livelihood deficiencies of infrastructural and political neglect experienced under previous development regimes can be turned into a positive locatedness from which to articulate decentralised, offgrid, bottom-up and low carbon adaptations to climate change effects, as is proposed in new climate-smart agricultural systems (FAO 2012), and the UN's Sustainable Energy for All programme.

Taking on the agenda of climate change provides anthropologists and other social researchers of the Himalayas with possibilities for reassessing our regional understandings of long-term change in human-environmental interactions and landscapes (e.g. Smadja 2009). There appears to be little work that explores the translations of global climate

change discourse into the diversity of lived worlds and shifting relationships of understanding and exchange between ecological and cultural zones of the Himalayas. We know the terms of interaction between lowlands, mid-hills and mountains to be characterised by longstanding, multi-factor and conflict-laden inequalities (Blaikie et al. 1980, Shrestha and Conway 1996 Gellner 2003, Gurung et al. 2014, and these can be anticipated to repeat their old machineries of power and exclusion in the new paradigms of climate change policy (Nagoda 2015). However, a commitment to ethnographic groundedness and to participation in emerging critical debates across natural and social sciences (Latour 2004, 2005, Shove 2010) brings a responsibility not to prejudge and recycle old scripts of unequal power relations. The challenge of understanding the human dimensions of climate change requires both rejecting a reduced social slot in the disciplinary division of labour (Leach et al. 2005), and listening to accounts of the lived worlds of people beyond the metropolis as reasons for questioning the habitual thought patterns of liberal theories and methods for claiming to understand change in human relationships with the world, which is now revealed as undergoing human-induced climate change (Barry et al 2013).

Recent debates in the influential journal *Global Environmental Change* have berated the terms of understanding of human dimensions of climate change. Following naïve expectation that interdisciplinary collaborations would yield compatible datasets and cumulatively increase knowledge and reduce uncertainties, the perspective presented by Castree et al. (2014) argues for greater acceptance of critical spaces and tensions in the diversity of knowledges coming together over climate change issues.³ Turning these debates towards moral concerns and normative outcomes, Barry et al write:

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³ Castree et al. characterise the dominant framing of human dimensions in global environmental change thus 'The frame's major presumption is that people and the biophysical world can best be analysed and modifed using similar concepts and protocols (for example, agent-based models). A single, seamless concept of integrated knowledge is thereby posited as both possible and desirable, one focused on complex systems. The frame positions researchers as metaphorical engineers whose job it is to help people cope with, or diminish, the Earth system perturbations unintentionally caused by their collective actions.' (2014: 764). They go to note that 'This science offers little or no sense of humans as diverse, interpretive creatures who frequently disagree about values, means and ends; and there is nary a mention of power, violence, inequality and the perennial

we cannot conveniently 'read off' how to cope with climate change from scientific analysis, nor can we 'outsource' the solution to climate change to natural science and technology. Thinking through climate change... is not something that can or ought to be left to experts. Science and technology can only offer insights into climate change once we recognise its core normative dimensions, both in moral/ethical terms as well as in political/policy terms (2013: 375).

The next section explores these terms of enquiry within the climate change affected lived world of the Tamang-speaking communities in Rasuwa. It seeks especially to look at the anticipatory effects of climate change thinking, and their contingency with rapid shifts in ways of life and their normative underpinnings.

Fieldwork in the slipstream of Climate Change

By 2011, things had taken a different turn in my encounters with climate change. Visiting in Thulo Bharku I was drawn into conversations about pressure being applied to the operation of the yak cheese factory at Shing Gombo. The Langtang National Park was now threatening the cheese factory with severe consequences, closure at worst, if they could not reduce the levels of forest resource use in the area of high forests, which are home to red pandas, musk deer and snow leopards. A new military commander of the army section posted at the national park had discovered that one of the high altitude, seasonal dairying units for the cheese factory had used freshly cut green wood to build its encampment and working area. This use of construction timber was on top of the cheese factory's consumption of fuel wood to pasteurise milk and make cheese, which is claimed by the park to exceed the rate of tree timber replenishment. Reports of the problem reached national newspapers in February 2010, and while climate change did not feature prominently in the newspaper's narrative of this new forest protectionism, it became a frequently encountered point of

desire of some people to replace one socio-environmental regime with an entirely different one.' (2014: 765).

reference and legitimatising concept for a host of conservation and development policy initiatives at this time.

Climate Change conferences were held in Kathmandu in 2010, and in April 2012, Prime Minister B. Bhattarai gave an introductory speech to the International Conference of Mountain Countries on Climate Change. He pointed to the evidence for rapid warming 'in our observations of increased snow and glacial melt and the frequency of extreme events such as devastating floods and droughts, which have exacerbated problems of hunger and poverty in mountain regions.' He not only urged attending to people's sufferings and survival needs, but also 'preserving the ecosystem that nurtures them'. While acknowledging uncertainty and gaps in knowledge, he emphasised a 'need to bring the climate change program down to the local level by demystifying and dejargonizing its notion and approaches. We need to make climate adaptation as people-friendly as possible' (ICIMOD.org, accessed May 2012).

The Government of Nepal established the Climate Change Management Division in the Ministry of Environment in 2010. With the aim of protecting infrastructure from climate change effects, a policy of the National Planning Commission instigated climate-resilient planning tools in the same year. The Ministry of Environment brought a focus on climate adaptation, reducing risk and disaster, promoting low carbon development and climate resilience, applying finance to manage risk and adaptation, engage in relevant capacity building, and increasing research on technology development for climate-friendly natural resources management. This process was the first national attempt to mainstream adaptation by NAPA (National Adaptation Program of Action) and the policy represented a push to make climate change issues of concern across a range of development sectors (Nachmany et al. 2015: 4). The Nepal Climate Change Support Program received assistance for a first phase of Euro 16.5 m (NRs 1.8 billion) targeted to reduce vulnerability to climate change of two million women and men in the Mid and Far West of Nepal SEP The funding came from the EU (Euro 8.6m) and the UK (Euro 7.9m) and technical support from UNDP.

With this high level of climate change awareness being promoted from Kathmandu, it was not surprising to find it in the text of a report entitled 'Overview of Cheese Production Business & Its Impacts in Biodiversity Conservation in Langtang National Park' produced during this period by LACCOS (Langtang Area Conservation Concern Society), which is a local NGO sponsored by WWF and supportive of the Langtang National Park positions. The report consisted of a set of bullet points and one of them stated 'Impact of climate change has been prominent and prevalent in LNP area' (LACCOS n.d.).

The forests of Nepal were now being drawn into new policy fields beyond simply stopping deforestation and preventing soil erosion, which had been the major concerns of the 1970s when the national parks were set up. The primary environmental cause became encapsulated as preserving biodiversity during the 1980s. The carbon sequestration logic had now arrived as the latest externally recognised rationale for conservation, and the state's claim to restrict livelihoods and development in areas of territory for nationally and internationally validated conservation policies. Climate change and the potential for looking at Himalayan forests as sources of cash from emissions trading through the REDD+ scheme (Reducing Deforestation and forest Degradation) were indeed audible in discussing relevant knowledge and policy contexts in Kathmandu (UN-REDD 2014). The more critical voices among the NGO community in the capital understood how state policy worked outwards from the centre to take shape and remould the terms of interaction in rural contexts, and to bolster previous stateterritorialising stances with regard to environmental access and rights with new criteria and rationales.

It was in this context that I chose to pursue an invitation from the herders' community to initiate a project to substitute the cheese factory's use of fuelwood with biogas, produced from yak-cow dung (funded by a small grant from Durham University's Energy Institute).

In the conversations taking place at ground level sites of field research, such as with NGOs in the renewable energy sector, climate change policy effects are now present as background elements of almost any decision-making. During a number of meetings I and my energy engineer colleague Paul Sallis from Newcastle (also accompanied by NGO staff from the Kathmandu-based Biogas Support Programme), held with Rasuwa-based national park officials, the cheese factory personnel, local political leaders, and the committee representatives of the local herding group at Shing Gombo and Dhunche, the explicit issue of

climate change was hardly raised at all. The greater attention was spent on the direct repercussions for livelihoods of the national park's intention to follow through on the withdrawal of rights to fuelwood. The *hariyo ban* plan of government and WWF for the Chitwan-Annapurna zones is one of the policy sources that can be seen as setting the tone:

most of the lower and mid-hill forests in the subtropical and tropical zones are vulnerable to climate change impacts, whereas the temperate upper montane and subalpine forests will be more resilient. Relatively large (>500 ha) patches of contiguous forests will remain as climate 'macro-refugia' along the montane regions ... should be conserved because of their high biodiversity values. Further degradation from short-term anthropogenic drivers should be prevented (Thapa et al. 2013: iv).

The areas with supposedly lesser climate vulnerability are thus deemed to merit greater protection for their biodiversity. The competition between food sources of red pandas and yak-cow herds (Fox et al. 1996) were entering a new phase. Rights to fuelwood and pasture have been at the centre of the environmental crisis debates in the Himalayas since the 1970s. A very influential paper at the time spoke of 'archaic rights' to headloads of fuelwood and fodder reducing the capacity of forests to regenerate and provide inputs to peasant farming (Wyatt-Smith 1981). By the 1990s the heated debates over the crisis resolved into growing recognition that community forestry was patently producing positive results, as rural Nepali communities demonstrated significant institutional capacity to manage themselves with common aspirations for a healthy zone of biodiversity where they could keep an eye on who was taking what. Such participatory resource management systems are now frequently presented as the best means for adapting to climate change (Arval et al. 2014), but this is not universal, and not always encountered in field-site conversations where climate science is instead mobilised to ignore local knowledge connected to practices of environmentally based livelihoods, or condemn it as ecologically destructive or as illiterate superstition.

During initial meetings in Kathmandu held with Biogas Support Program, the influence of the REDD agenda was mentioned as likely to be responsible for the thinking behind stepping up action on intensifying protection measures on biodiversity. More generally, a connection was being made about the anticipation of a new kind of view of trees as stores of carbon, which will constitute measures of accounting value in a new cash economy of forest management. Any activities that would diminish the stock of carbon in forest areas would obviously be negatively perceived, as would activities that complicate land use priorities from a managerial point of view. Climate change discourse and policy was evidently seeping into national conversations of opinion formers, and finding affinities among participants in the national conversation for whom positions on climate change helped other agendas at the same time.

It is noticeable with the example of biogas that the original impetus for funding its active promotion in southern Nepal had been overwhelmingly the goal of reducing the extraction of forest biomass on the edges of the national parks. Two cows provide a household with enough dung to generate sufficient biogas to remove the need for householders to fetch fuelwood from the forests. The environmental priority was originally to enhance the protection of biodiversity, rather than sequestering carbon or reducing CO2 emissions from burning wood.

During a further trip in May 2014 to investigate progress at the biogas trial site at Shing Gomba a group of masters students from Tribhuvan University were interviewing residents, lodge keepers and the cheese factory manager about their experiences and perceptions of climate change. Their group leader was Prof Roshan Bajracharya of TU, whose research has focused on carbon cycles in different patterns of land use. His study of smallholder agro-forestry in Rasuwa environments reveals carbon content of 48.6 tons per hectare of soils in mixed agro-forestry systems, and demonstrates the benefits of multiple use landscapes for resilient livelihoods that are still compatible with policies to reduce CO2 emissions. The research team's publication (Pandit et al. 2013) concludes that

[t]here is substantial scope for reducing carbon emissions from agriculture and yet increasing productivity because Nepal's farming practice is largely carbon-friendly and there are opportunities for further strengthening and enhancing carbon-rich farming by supporting many of the traditional farming practices. Nepalese farmers have been practicing agroforestry without any financial incentives for their contribution to carbon sequestration and will continue practising this land use as long as they continue practising agricultural systems comprising field crops, trees and livestock. Hence, traditional systems modified to diversify production while concomitantly achieving carbon capture promise to be the best option for the future (2013: 485).

Given this positive assessment of agro-forestry carbon recycling capacities, the categorical assumption that protection of standing timber should displace other land use practices can be regarded as an arbitrary decision, especially where carbon sequestration is considered a key environmental value, and where mixed livelihoods of mosaic field systems, herding and tourism can be a complex that enhances sustainable options for communities of people under many sorts of economic pressure alongside those of climate change.

Human Dimensions and Non-human Dispositions

It was in talking with a Tamang woman in her seventies in one of the mobile yak-cow (chauri) dairying camps that the contemporary dilemmas of the way of life tied up with supplying the yak cheese factory with milk was brought home to me. She spoke of problems in the low milk yields when rains are not dependable in the early milking season. She disparaged her husband for preferring to maintain his friendships with other male herders in livestock deals, rather than obtain the price he could achieve by putting the four-legged assets of his operation foremost. She bemoaned the death of one son away working in Malaysia, and the absence of her daughter, who was also out there rather than helping the old couple. What was she to do? Should they just sell the herd as their children were not evidently keen to carry on the dairying way of life? She said the children aren't doing what children should do, and 'look even the chickens these days refuse what

they are given. They won't eat maize and demand rice. The whole world has gone topsy-turvy'.

Climate change does not feature here as a general phenomenon in the terms we have become accustomed to think of it. Instead a more general confusion of expectations, an unreliability of domestic roles, and difficulty in making decisions has pervaded interpersonal, and inter-species relationships. This disrupts ongoing flows between daily efforts and economies of care in the patterns of ecological practice that convert into income and a sense of value and life-worth. Back at the cheese factory and trekking lodge settlement, one of the lodge keepers was to touch on this predicament with insight and good humour. He said the young people either go for education or work in cities, rather than adopt this life of suffering in the rain, or enduring droughts. Perhaps there could be another thirty years or so during which people might follow this path, but he saw the prospects as terminal for the herding community that he and his generation were born to. Young people now are drawn to places that his age group only ever dreamed of. The human experience here of global warming is inextricably linked to a global outpouring of their young people who are the active labour force for their economy, but whose contributions to their parents' domestic purse come, if at all, with uncertain timing in the form of remittances. The opening up of global space is the marker of newness in these times. This is the other side of the story from the paranoid perceptions of people in the wealthy parts of the globe looking at climate refugees arriving on their shores. The global outpouring has climate-related elements, but the driver of migration is the inequality between the allure of wages earned abroad, fused with post-agrarian values of personal worth and accomplishment since the migratory turn, as compared to a failing and under-capitalised occupational niche in the mountains. This bhote way of life was always held in low esteem by modern national citizens of Nepal, and the more powerful representatives of the state in the shape of the national park, who now have climate change also to use in their armoury of reasons why this traditional disposition for livestock pasturing should be further restricted.

I will finish the ethnographic episodes with a return to the first village where I described the drought and terrible winds occurring. In

2014, I was proudly taken to observe how well a path-building project had been completed with assistance from the office of Soil and Water Conservation. The path to a once difficult to access water source had been cleared of obstructions and some flights of steps and the small bridges repaired. Going in the company of a young shaman (bombo), and another friend, we took nearly two hours getting there at a steady incline from the village. This spot was known for its healing water (men chu), constantly spurting out of a mossy and fern-covered rock face where some stonework provided a framing ritual enclosure for the scene. The young bombo lit some brushwood incense branches and chanted facing the spring for about twenty minutes, renewing his acquaintance with this healing water spirit, and bringing home a pot of the healing water. Back at the edge of the village where his house is located below that of the Kami (blacksmith) family, another water source beneath the walnut tree (kadongbo) was known more for its vindictive rather than healing qualities. This particular shyibda or naaq had caused trouble to a whole host of neighbours and people whose animals had passed by. One of the Kami family's daughters working in Malaysia was said to have been struck sick by this deity's malign affect, even at such a distance. In a couple of days, a low stone enclosure, and some angle iron poles and fencing had been put up to mark off a ritual territory of existential danger, before a small crowd scene that witnessed the honouring, and purification of place, removed from potential defilement, by the bombo, who chanted to restore public recognition of the local lord's abode.

These actions marked a remaking of relationships with the local environmental sovereigns, whose cantankerous whims or benign protective influence depend on maintaining relational obligations and active attendance to avoid neglect.

Weathering Debates of Fact and Value

The dominant kinds of discourse doing the rounds in climate change debates concern firstly scientific information, secondly unequal vulnerabilities to its effects, and thirdly the policy mechanisms and financial relief coming into place to address adaptation and mitigation. It is notable how narrow the views of human dimensions of climate change are in most of the literature. The science and political economy

of climate change is of course hugely important (Gupta 2011, NEFIN 2014), but the question of what kind of thing climate change is for different people, and in their own normative frames, or their contextual vulnerability (Nagoda 2015) is apparently not being asked. The anticipation of compensation mechanisms (UN-REDD) and the inadequacy of distributive capacity (Tiwari et al. 2014) dominate discussions of market models to manage global warming, to the exclusion of asking, as the Tamang villagers ask, "Where are the vital sources of our life world?" They are pondering how to renew effective mutual relationships with these sources of life.

There are questions to ask about how to break through from the old nature/culture dichotomy thinking, which still infests most of the data collection and analysis of Himalayan climate change. There are new terminologies, concepts and approaches to be experimented with and projects of work to carry through, which offer critical thinking and comparative case studies. Among these, the most obvious are the longitudinal landscape histories of Smadja (2009). The historical tracks of Himalayan climate change research could be pursued as Schaffer has proposed more generally for mountain research (Diemberger et al. 2012). But as Strathern comments in the same climate histories conversations, rendering a perspective of the perspective of mountain regions with climate change as a singular object of enquiry, creates them as versions of each other. By contrast, a perspectivist view could apprehend

a world that is also many worlds and where oneness rests in the human endeavour of being and understanding. In this truth, there is a multiplicity (at once infinite and interrelated) of climate problems and an extraordinarily uniform consensus that change is afoot (Diemberger et al. 2012: 239).

Global warming envelops and obscures differently framed cosmological scenarios and social realities of climate change. Anthropogenic climate change belongs in a cosmological family of environmental risk perceptions, which effectively externalise the systemic effects of global socio-economic inequalities (Moore 2016). It is analogous to the way natural science objectivism construed excessive human agency

(growing numbers of poor subsistence farmers) as causing deforestation, soil erosion and degradation of fragile mountain ecosystems without bothering to speak to the assumed perpetrators. The way that mainstream literatures organise and target climate change scenarios for the Himalayan region is a new edition in the same book series as the Theory of Himalayan Environmental Degradation (Ives and Messerli 1989), with an updated version of the call for programs of urgency as a globally vital need (e.g. ICIMOD's report on the HKH region for the 2012 Rio+20 conference). Global warming risks repeating old environmental oppressions.

In the history of Himalayan environmental knowledge politics, it is all too clear from knowledge of what happens in specific places that science can often come not as open enquiry, but as a blunt instrument to allocate the distribution of blame among local offenders, and point to new values in the interactions of people and territories. The climate change agenda has turned protected areas from being refuges of biodiversity into carbon sinks for global ecosystem services. Anthropologists and other social scientists need to challenge the mainstream consensus regarding what kind of phenomenon climate change is taken to be (Wynne 2010). We need to attend to how climate change scenarios put in motion political and institutional discourses that mark local forms of knowledge as inferior, when the voices of authority advocating climate change action have shown little curiosity in acquiring evidence of human dimensions other than in signs of human-induced environmental degradation. Climate change policies risk turning back the clock regarding the progress of participatory elements in environmental policy. Jason Moore's (2016) collection on Anthropocene or Capitalocene makes some of the best arguments yet for refusing the flattened version of the human that is casually smuggled into discussion of the Anthropocene, while implying the concept is transformative.

As climate change discourse arrives in climate-affected societies, it is working through a set of rapid class transformations. In Rasuwa and other districts of Nepal many indigenous rural youth are appropriating the environment and climate change as a language through which they can legitimise a refusal to take up the subsistence pathways of their peasant parents. The Tamang youth have gone feral, off the farm, via

the insurgency and migration. The 50-somethings now have to calculate and financialise what was previously habitually dependable: on-going social life, enacted in seasonal, intimate collaboration between humans and non-humans, fields, forests and four-legged creatures. This change throws into question collective and personalised relations with local non-human lords of climate and weather events. The intimacies of connection to life processes entail breaking out of the skin of the human organism and recognising the consubstantial flows of medicine water into the human life flower.

Out of the district capital where climate change discourse works for career purposes among youth groups and NGOs, in the village orbit there appears to be renewed ritual interest around effects of desiccation and water precarity. Cantankerous and badly behaved subterranean spirits visit unpleasantnesses on humans transgressing on their patch of ground. Even in the exceptional global moment when children of Dalit families from Nepal are now migrant labourers in far off Malaysia, the Blacksmith family's non-human neighbour from the underground is deemed to be causing sickness all those miles away. Thus, concerns of water sources at risk lead to recognition and containment – a need to make an enclosure, and performatively exert some control over straying people, animals and gods in what is now termed the feral Anthropocene (Tsing 2016).

In the transformational spirit of collaboration and intimacy around our forms of enquiry and analysis concerning climate change, the question of human agency needs to be disaggregated from being viewed as a generic environmental threat (whether to do with GHG emissions, or biodiversity loss), and be given life and contextual vulnerability (Nagoda 2015) in the meaningfully lived worlds that have to be addressed, if indeed we are to change how things are. Rather than the default instrumentalist, rational choice version of human behaviour that Wynne (2010) sees as characteristic of a generic human subject, we can turn to ask how choices and the relational circumstances of making decisions are encountered along scales of fatalism, (mis)fortune and auspiciousness. The conditions in which acting to make a difference takes place should not simply aim to reduce scientific uncertainty but address the not-known extent of our uncertainty, through recording the idioms of the times we are living. As the woman *chauri* herder told me

her children lost to her, she doesn't know what to do in these times that are topsy-turvy, when even the chickens are brats!

Conclusion

Questions of the human dimensions of climate change need to be addressed for a variety of reasons. These include attending to the direct consequences of floods, droughts and the increasing unpredictability of environmental conditions that adversely affect the livelihoods of people whose understandings of these events do not generally share in the modernist cosmology of climate change. They bring us to question the unequal distribution of harm to different human communities that have hardly contributed to the causes of global warming at all. We need to see whether attempts to mitigate and adapt are effectively helping the poor or making life even more difficult for them. People in Nepal are encountering climate change within a set of struggles that are economic, ethnic and ontological. The human dimensions framing also takes us into thinking about how different human communities themselves make sense of what global discourse has stabilised as climate change. This is a particular construction that has come about through an epistemic genealogy of over 150 years (Schaffer 2012), and congeals sets of aggregate data concerning the bio-physical environment, which are there for us or our leaders to respond to.

This is a very particular elite discourse of power that a restricted set of the human community is analytically equipped to engage with and act upon. To participate in the conversation at all presumes some minimal scientific literacy, the ability to conceive of the bio-physical environment as an object of thought and management, and a notion of responsibility and power to realign collective values and environments. In their perspective piece on the limitations of the human dimensions as discussed in Global Environmental Change, Castree et al. write that '[human dimensions] science offers little or no sense of humans as diverse, interpretive creatures who frequently disagree about values, means and ends' (2014:764).

Instead of the objectivist bio-physical ontology of climate change, the notion of a sentient moral ecology better describes Tamang relationships with strange weather events, but the distinctive Himalayan setting of eco-cultural intimacies embedded within niche

differences puts that sentient ecology in opposition to other environmental discourses of sovereignty and power. State environmental actors are using science and policy of climate change to reposition their legitimacy after the substantial loss of control over rural society since the Maoist People's War, as was seen in the speech from former PM B. Bhattarai pleading for people-friendly climate adaptation. However, the new Nepal includes voices alert to new values of carbon.

Since REDD is related to the carbon trading for the mitigation and adaptation of the climate change, rights over any kinds of decision either to agree or disagree over the carbon trading of the forest should go to the indigenous peoples. (NEFIN 2014)

Looking at Himalayan climate change from the diversity of human dimensions breaks up the hold of global framings, and brings home the variety of ways in which people, and not just research institutes, are thinking of what climate change can do for them. In their own terms and their collective quandaries the Tamang people in Rasuwa are attempting new narratives of adaptive protection and solidarity with some of the humans and non-humans amenable to rebuilding old understandings of relationships in mutual connection. In response to unprecedented change, people are cherishing and indulging their animate local weather lords to be more favourably disposed to resident clusters of increasingly confused humans, contemplating the world their children will be responsible for. The causal and contingent movements of children out of the farming world connected with the changing climate of that world has hit home in a normatively transformational way. These dimensions of the human domestic habitats of climate change speak in terms that concur with Hulme's (2010) cautioning against any idea about returning to a climate of things as they were.

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Village gods and goddesses of Kinnaur and their money lending system

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Kinnaur is a district in the state of Himachal Pradesh famous for its distinct folk culture and religion. It can be sub-divided into three zones (fig. 1), i.e., lower, middle, and upper Kinnaur. Lower Kinnaur comprises the area between Chora at the boundary of Kinnaur district with Rampur Bushahr, and Karcham. In this area, local village gods and goddesses find a prominent place in the lives of the local populace. Middle Kinnaur is the area under Kalpa, Sangla and Moorang *tehsils*. The people of this area believe in village gods as well as Indo-Tibetan or Lama-Buddhism, while in upper Kinnaur, Buddhism dominates the scene. Upper Kinnaur covers the remaining northeastern part of the district between Pooh and the Hangrang valley, extending up to Spiti in the west and Tibet in the north and east.

The district is famous for its hills, rivers, valleys, high mountain ranges and horticulture and trade. Small-scale industries and trade are important sources of income for many people. The government has promoted many schemes to boost economic development. Trade has always played an important role in the lives of the Kinnauras. Recent archaeological evidence from Lippa and Ropa suggest that the Kinnaur was the part of one of the earliest trade networks involving the exchange of marine shell objects during the second half of the first millennium BCE (Deshpande, Mukherjee et al. 2015: 9-15; Nautiyal et al. 2014). Until early last century, the people of Kinnaur traded with Tibet, Yarkand, Ladakh, Kashmir, Lahore, Delhi, Calcutta, Bhutan, Sikkim and Nepal (Minhas 1998: 69). The main exported items were wool, pattu,

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blankets, pashmina, neoza, zira, bhojpatra, opium, pumpkin, patish (a medicine for stomach ache), incense, honey, ghee, apricots, raisins and yaks' tails. Exports to Tibet included cotton cloth, agricultural instruments, sugar, shields, knives and scissors. The principal imports from Tibet were pashmina, beangi lambs' wool, goats, sheep, salt, borax, carpets and hashish. Nerbussee, a medicinal drug regarded to be a cure for snakebite, was brought from Nepal; silver was brought from Ladakh and saffron from Kashmir (Gerard 1841: 181-185, Gazetteer of the Simla Hill States 1910: 61-63; Bajpai 1981: 86-88). With the Chinese occupation of Tibet, the once flourishing trade gradually diminished and finally ceased completely when the border was sealed in 1962. However, in 1994 the border was re-opened after an agreement between India and China (Verma 2002: 29-30). After independence, the Indian government gave special attention to the growth of horticulture, and the district became known for its high quality apples, chilgoza, apricots and other dry fruits. Many fruit-research stations, demonstration orchards, nurseries, a research station at Kalpa and a substation at Ribba were established through collaboration with the Indian Council of Agricultural Research. These promoted modern cultivation and directly supported economic growth in the district (Bajpai 1991: 83). Even after the tremendous growth in economy, the people were determined to protect their culture and religion.

Virtually every social scientist that has written about Kinnaur has pointed out the extremely important role that local goddesses and gods (devi-devta) play in people's lives (Sankrityayan 1948; Sharma 1976; Raha and Mahato 1985). Almost every village in Kinnaur has its own village deity and many of them worship more than one deity. So intricately is the presence of village Gods woven into the lives of the people of the lower and middle regions of Kinnaur that they cannot imagine a world without them. The village gods recognize misfortune and cure illness, decide the dates of festivals and predict the fortunes and misfortunes of the coming year. Villagers seek advice and permission from their deities for the most important matters: building a new house, marrying their children, sowing crops etc. These village gods live a life that is akin to that of human beings. They are personified and attributed with human qualities and are believed to have likes and dislikes. They are believed to

be delighted if they are worshipped perfectly, but furious if somebody breaks the established rules.

The village gods have families, relatives, land, orchards, pastures and forests. The money earned from these resources is used to perform religious work, to arrange large feasts, and to lend money at interest to the villagers as well as to other village gods. In upper Kinnaur (Pooh to Samdo), where Buddhism is dominant, the situation is different. Unlike in lower and middle Kinnaur, the *devi-devta*³ of this region do not own any land nor do they have an appreciable source of income, and thus they do not hold a position of financial importance among the villagers. People worship their village gods only during festivals and it is the head Lama of the Buddhist monastery who drives away evil spirits and performs similar duties, rather than the god's oracle (*gur*).

A significant amount of research has been done on the importance of these village gods, their folk songs and dances, the political and social conditions of the society and the changes it has undergone, but few have studied the local financial system. Jogishvar Singh is the only author to have shed some light on this system, in his 1989 book and an article that appeared in 1990. In these publications, he mentions the interest rates and the amounts of the loans given out by the *devi-devta* and the penalties paid by people of Kinnaur. He also compares the money-lending practice of Kinnaur with the banking system and mentions that just as the interest rates of banks fluctuate due to interest rates of other banks, the *devi-devta* also adapt their interest rates according to the rates of other *devi-devtas*. Over time, the financial system in Kinnaur society has undergone many changes and the present paper focuses on continuity and change in the money lending system maintained by the village gods and goddesses of Kinnaur.

Almost every village god of Kinnaur owns land. Although there is no direct supporting evidence, we assume that these lands were donated to the deities by royal personages and/or other important people in Bushahr, just as similar donations were made by kings, their family members, merchants and Brahmans in the nearby Chamba, Kullu, Kangra and Shimla districts from the tenth to the thirteenth centuries CE (Thakur 1996: 130). The oldest evidence is a copper plate found in

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 $^{^{3}}$ In the Pahadi dialect the village gods and goddesses are called devi-devta.

Nirmand, which refers to the grant of land that King Sarvavarman (in the last quarter of the 6th cent. CE) made to a village temple dedicated to the god Kapalesvar. The record belongs to a later period and is related to King Samudrasena of the early seventh century CE (Goyal 1993: 91-92, Bhatt et al. 2005: 112). On the basis of this evidence, it may be suggested that donations of land to village gods were an ancient trend in Himachal as well. Examples of royal donations of land to local gods include donations to the gods Sungra Maheshwar of Nichar, Kothi Devi of Kalpa, Badri Vishal of Kamru, and Bering Nag *devta* of Sangla, who own the best orchards among the gods and goddesses of the region. Even today, these *devi-devtas* hold much more land than the average villager does.

Singh, who also discusses devtas as landowners, states that

(u)nder the provisions of the H.P. Abolition of Big Landed Estates Act, 1953 only five landholders were affected in Kinnaur and all five were village deities — the three Maheshwars, Badrinath and Bairang Nagjee of Sangla. 9,113 acres of their lands were declared surplus and vested in 2,284 tenants who had been cultivating them. 885 acres of land were left in these *devtas*' possession (Singh 1990: 250).

The table below, based on information collected from the Nichar revenue department, gives a glimpse of the present status of the total land holdings of the *devi-devtas* of Kinnaur.

Clearly, the *devi-devtas* own and control a large portion of the agricultural land in Kinnaur and its associated resources. Income generated from this land, along with offerings by devotees, are their two major sources of income. A further source is the local tradition according to which the deities are offered a share of the income generated by the sale of the harvest. These offerings are often made in the form of cash and kind, as well as land and cattle. They are given either as tokens of gratitude for the happiness and prosperity that the gods have bestowed, or in order to appease their wrath. The money generated from these offerings is invested in banks and fixed deposits.

But the major source of income for *devi-devtas* is the money received from their orchards and the interest paid annually by borrowers. Village deities use their money for the welfare of their people, for the maintenance of their temples, and for organising temple festivals. *Devi-*

devtas grant the use of their fields for cultivation on both long- and short-term bases. The growers who cultivate the gods' land keep their own share of the crops and deposit the remainder in the temple. The deposited share of crops is lent to the people at an interest rate of a quarter (0.25) per kg. After 1964, with the consent of the devtas, their administrators began cultivating their (the devtas') lands and helping people by lending them cash, the interest on this being paid in cash only. The interest rate on loans given by the devtas used to be 25% per annum till 1948, but in 1980, some devtas like Sungra Maheshwar reduced the rate to 10%. Usha devi of Nichar also cut the interest rate to 10% in 1984 (Singh 1990: 251).

Name of gods and goddesses	Name of village	Size of orchards	Total size of land
Maheshwar Sungra	Sungra village	3-20-85 hectare ⁴	12-22-82 hectare
Kothi Devi Chandika	Kothi village	1-31-89 hectare	2-85-62 hectare
Maheshwar Chagaon	village Chagaon	1-21-32 hectare	5-79-58 hectare
Usha Devi	Nichar village	2-02-67 hectare	2-04-49 hectare

The interest rate on loans currently fluctuates from 6% to 10% per annum. There are many incidents of *devtas* lowering their interest rate at the peoples' request. Usha devi of Nichar village and Tranda devi of Tranda village reduced their rate of interest from 12% to 10% and then to 6%. According to the *mohatmim* (the person who heads the the group of *kardars* or administrators, and is in charge of looking after the property of the god) of Katgaon Maheshwar Nehal Charas, the *devta* Maheshwar of Katgaon village lowered his rate of interest from 12% to

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⁴ In the Indian system of land surveying when land is measured in meters, the units used are centare, are and hectare (100 centare is one are; 1000 are is one hectare). For example, the measurement 3-20-85 refers to 3 hectare, 20 are and 85 centare.

6% in 2010 at the request of his devotees. Generally money is lent to anybody irrespective of caste and creed or status, although there are exceptions like the *devta* Vishnu, whose devotees are from the lower castes, and who only lends money to them. But the lending procedures and formalities are the same as for others. Sungra Maheshwar also lends money to groups of 7 to 10 individuals who divide the money among themselves as per their requirements.

The financial system of the *devtas* is systematic and organized, and in terms of efficiency it can be compared to modern banking, but with a different approach. Like banks, the *devtas* help people by lending money at affordable rates of interest, but they are not authorised to conduct public banking. They lend out amounts based on faith, with only nominal written formalities. The tenure of the *kardar* (administrator) depends on the wish of *devta*, and one-third to one-half of the *kardars* are replaced each year, unlike in banks where the tenure of employees is fixed. The *devtas* give loans only for one year, unlike the banks who may lend people money for long periods of time (up to 20 years). One can get a large loan only at the bank, since a *devta* will lend only 10 to 20 thousand per year; and moreover only on specific days, once or twice during the year. Unlike banks, the *devta* sometime waives loans to his people during natural calamities or serious problems like severe illness, a daughter's marriage, or death in the family.

Every devta has a managerial committee of kardars (administrators) who carry out all the work connected to the devta and his temple. All matters related to money, land, and loans are handled by them. The deities themselves choose the committee members through their oracles (gur/mali). One-third to one-half of the committee members change each year, at the time of the Bishu festival. The mohatmim heads the committee and all the land and property is registered under his name. He retains this office for as long as the deity wishes. He sells the crops, deposits money in the bank account of the devta, manages the orchards, and does not receive any salary for his efforts. The kardars keep a record of all transactions. The devta lends money to the villagers who ask for a loan, through his kardar and in the presence of the entire village population. The person who takes a loan and a guarantor of this person sign the register and receive the money, there and then.

Kardars make special arrangements for the distribution of loans. Some villages have regular dates for this, such as Baisakhi (April 13) on which the devta lends money, every year, whereas elsewhere the committee announces the dates at a public meeting. Devtas lend money publicly once or twice a year, depending on their financial position. According to Haribansh Negi, the mohatmim of Sungra Maheshwar, the devta lends money twice a year, in April and December. People verbally request a certain amount as a loan and the kayath (accountant) notes their request in his register. The amount to be given out as a loan is decided in a meeting with the villagers, and following the devta's approval, the requested amount is handed over to the applicant. If someone requires more than the granted amount, he has to ask for the consent of the devta through his kardar. The additional amount is released to the borrower only after the consent of the devta. The mohatmim enters the address of the borrower and the amount of money taken as loan from the devta in the register. In modern times, in order to be cautious and to avoid any confusion or negligence in the records, a register (bahi) with six to eight columns is maintained, viz., the applicant's name, father's name, name of the village, guarantor's name, the amount borrowed and signatures of the applicant and a guarantor. The guarantor promises to return the loan if the applicant fails to return it. Only a person from the same village with a good reputation in society can qualify as a guarantor.

In some villages, the total amount to be paid back, with interest, is also entered in the register at the time of disbursement, and when the person returns the total amount, the *mohatmim* signs with the date against the amount written to confirm the return. The *kayath* (one of the *kardars* of the *devta*) maintains the daybook to enter the daily inflow and outflow of cash, and is not allowed to take it home. The records are confidential and may not be viewed by outsiders. Although the locals are aware of the amounts, they dare not reveal this information for fear of the *devta*'s wrath. A reason for this arrangement might be to try to discourage the unwanted attraction of outsiders to the *devtas*' wealth. However, there is also a system of audit in which the important *kardars* of the *devta*, along with senior and respected people of the village form a committee and review the year's transactions.

The amount is loaned for one year, at the end of which the borrower has to return it with interest. The date on which to return the amount is determined by the kardars of the devtas but, due to busy schedules, in some villages the dates of borrowing and returning are fixed in advance. Along with the names of the borrowers who return the money, the kardars also note the names of defaulters, and such people are less likely to be given loans in the future. In case of delayed re-payment, the defaulter is fined. In Chagaon village, a sum of fifteen rupees per day per hundred rupees loan was imposed as a penalty in case of default. In Chini, it was five rupees (Singh 1990: 252), but, later on, the process of imposing such penalties changed dramatically. According to mohatmim Nehal Charas of Katgaon Maheshwar, a few years ago when somebody failed to pay the money on the fixed date, two kardars of the devta would visit the borrower's house and remind him to return the money. If, after that, the borrower still did not repay, four kardars would visit the house and remind him again. If, despite both these warnings, the borrower still did not pay, the kardars would visit the house and confiscate household goods of equal value to the outstanding amount. The goods taken would be returned only after the complete repayment of the loan. This method of recovering loans is no longer practiced. According to Haribansh Negi, mohatmim of village god Maheshwar, the rate of interest for defaulters in Sungra village is 5% of the principal loan amount per hour until the borrower returns the money. However, no incidents of such recoveries have come out yet. In other villages, e.g. Sangla, if somebody fails to repay the loan, the kardar of devta orders the guarantor of that person to pay the money instead, and if the guarantor refuses, the kardar stops giving loans to the entire village until the defaulter or the guarantor repays the loan. In most villages the defaulter has to pay extra charges as a penalty for not paying back on time. It is believed that such penalties motivate borrowers to repay on time. But more than fear of penalties it is the fear of the devi-devtas that makes borrowers strive to repay loans even in the harshest of circumstances. They borrow money from other sources to refund the amount borrowed from the deity. Once the loan is returned, money can be borrowed again the next day, but timely repayment is essential.

There are several options for people to borrow money, but the low interest rates provided by the deities are attractive. In cases of natural

calamities like fires or earthquakes, or in case of an accident in the family or some major illness, the deities spare the borrower from the repayment and may even help by giving extra money.

The amount lent by the *devtas* varies according to their income. It is very difficult to estimate the limits of loan transactions, as no administrators share information about this. According to Singh (1990), before independence the cash loans sanctioned by the deities were around Rs 3,000-4,000 per year. Before 1940, in the Nichar area, the limit was around Rs. 20, and it increased to Rs 100 in 1950. In the 1980s, some deities gave out loans of up to Rs. 1000. Maheshwar of Sungra loaned as much as Rs. 2500 in cash (Singh 1990: 252). But nowadays as a result of the general prosperity of the region, thousands and even lakhs of rupees are loaned. It all depends on how much property is owned by the *devta*. The owners of big orchards like Sungra Maheshwar, Bering Nag of Sangla, and Maheshwar of Bhava lend amounts from Rs. 500 to 20,000 per person.

Currently, some village gods and goddesses of the region have stopped lending money at interest. Goddess Chandika of Kothi village, Maheshwar of Chagaon and Badri Vishal of Kamru stopped this tradition due to an increase in the number of defaulters. Another reason for this change could be the growth of horticulture and the associated rise in economic status of the people who live in these villages. Moreover, when Kinnaur became an independent district on May 1st 1960, the state government took initiatives to start several development programmes in the area. With modernisation came banks that provided various kinds of loans at low interest rates. Presently 46 government (national and state) and private sector banks are active in Kinnaur, which with a population of 84,121 means that there is one bank for every 1829 people. Over time, banking has become an easy, convenient, and safe option for loans. Furthermore, compared to the deities, banks will lend a larger sum of money over a longer period, e.g. 15 to 20 years.

Another reason for the decline in the number of loans taken from the deities appears to be migration for educational and career purposes. The economy is growing and with increasing options, the people are no longer completely dependent on agriculture or on the loans from the deities. Therefore, the old system no longer attracts the people it previously served.

The *devi-devtas* not only loan money, they also donate money to help the poor and needy during times of distress and emergencies. Kothi devi is very popular in this respect. During fairs and festivals she helps many people in need, through monetary grants, in her temple. She has allotted lifelong pensions of Rs. 8,000 to Rs 15,000 per year to people who struggle with abject poverty. Moreover, some *devtas* also give money on affidavits, for example the village god of Labrang, according to the former vice-Mohatmim Sonam Paldan of Labrang Village. The increasing number of defaulters may have given rise to this practice.

Some devi-devtas of Kinnaur have bank accounts and investments in fixed deposits. Village gods have opened bank accounts: for example Usha devi of Nichar village, Badri Vishal devta of Kamru, Chandika (Kothi) devi of Kalpa village and Bairing Nag devta of Sangla village. All matters related to finances and investments are handled by the kardars, on behalf of and with the permission of the deities. In a meeting, the kardars of the devta decide upon a person in whose name the bank account of the devta should be opened. Sometimes the kardars open an account in the name of a devta. These are all safety measures and investments aimed at increasing the financial reserves of the deities. The income generated by fixed deposits or by selling fruits and crops is used to perform religious rituals, to help the poor, and to organise feasts (bhoj) for the villagers. The money that is spent by devtas on other nearby deities in the form of gifts and hospitality is also taken from these bank accounts.

Through studying these traditions and customs it becomes obvious that there is a very strong connection between the villagers and their deities. Human qualities and relationships are attributed to the Gods of Kinnaur, and they are very much involved in the lives of their devotees. They travel to the houses and temples of their kin, guide their devotees spiritually and emotionally, and solve their financial troubles. Their financial aid has helped people to survive and grow economically. There are few formalities or legal technicalities involved in this system. Villagers do not need to observe bureaucratic formalities, applications, etc. Moreover, they are safe from the exploitation of landlords. In cases of absolute distress or unstable economic conditions, the Gods waive the loan.

This model of lending and borrowing resembles the modern theory of low cost transaction and minimum wastage. By providing such support, the village gods set an example for the society and inspire the people to remain united and help each other in times of need. By lending money at low interest, including to the poor and deprived, they ensure that no one will have to suffer or sell their valuables. The model helps to establish and maintain balance in society.

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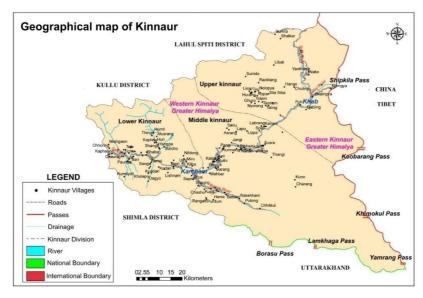


Fig. 1. Geographical map of Kinnaur.

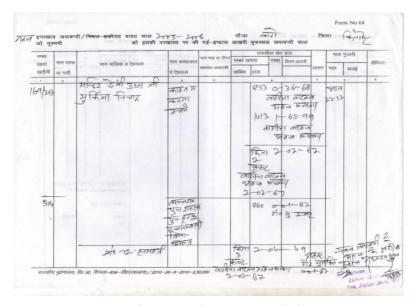


Fig. 2. Land statement of Usha devi (village goddess) of Nichar village.

BOOK REVIEWS

In the Land of the Eastern Queendom: the Politics of Gender and Ethnicity on the Sino-Tibetan Border

By Tenzin Jinba. Seattle and London: University of Washington Press. 2014, 170 pp., ISBN 978-0-295-99307-2

Reviewed by Katia Buffetrille (EPHE/CRCAO)

In the Land of the Eastern Queendom deals with the politics of gender and ethnicity in a small Tibetan community living along the Sino-Tibetan border and facing profound socio-economic transformations. The book tells the fascinating story of the appropriation by the villagers of Suopo township, Danba county (Tib. Rong brag rdzong) in Gyarong (Rgyal rong), of the tale of a legendary Eastern Queendom and of their supposed descent from a non Tibetan matriarchal lineage. The author, although a Tibetan, uses Chinese nomenclature for Tibetan territories.

Tenzin Jinpa, being himself a Gyarongwa, gives an insider view, but he also provides the outside perspective of an anthropologist trained in the West and influenced by "V. Turner's idea of liminality and J. Scott's works on subordinate groups' resistance strategies" (p. XIV).

The author shows how the discourse on the Land of Women is much more than a "produce of tourism propaganda" and "sheds light on the Suopowas's negotiations of various identities for strategizing marginality in pursuit of their political objectives" (p. 10). The Suopowas are Gyarongwa, speaking a Khampa dialect and most are adepts of Bon. They have appropriated their marginality to construct their distinctiveness among all Tibetan groups. One of the most interesting arguments of the author is that "marginalities, real or imagined, inform and shape their multiple identities" (p. 118). Through their struggle against another village already designated by the authorities as the site of the Eastern Queendom, the Suopowas are constantly negotiating their various identities as Chinese citizens, "authentic" Tibetans and distinctive Gyarongwa.

The interest of Tenzin Jinba for such identity issues comes probably from his own status as Gyarongwa. Indeed, the Gyarongwas, although classified as Zangzu (Tibetans) by the Chinese authorities in the 1950s, are not recognized as authentic Tibetans by all other Tibetans who sometimes think that they are "culturally close to the Han or very much Sinicized," and even looked upon "as pro-Han and thus pro-Chinese government" (p. 26).

Tenzin Jinba clarifies all the complex mechanisms and contradictions that come into play in this struggle. For example, while the women are very present in the discourse, they are not strong political participants. The "supposed superior status of women . . . in Suopo is manipulated by local men for tourists and outsiders" (p. 65) and they are not ardent supporters of the Queendom cause.

Through his study of the dispute between villagers, local elites and cadres, Jinba disentangles the complicated relationships between the local government and the village community who sees "the center, Beijing," as "an embodiment of absolute justice, while the periphery, Danba, is corrupt" (p. 86). This appears in a particular clear way in the last chapter, which describes the interactions between the various protagonists through the Tourism Association, the medium used by the villagers to express their political claims.

Intrigues and rivalries brought about by modernization and local policies are highlighted. If tourism and with it development and money are one of the causes of this struggle, the prestige and status of the village, as well as the minority heritage protection, also play an important role. In fact, the "ethnic tourism" that transforms areas of Tibet in what appears to Western eyes as a kitschy Disneyland, contributes nevertheless to a revival of the Tibetan identity and a feeling of pride in the Tibetan culture that Han Chinese used to look upon as backward.

Tenzin Jinpa contributes, through his meticulous analysis, to our knowledge and understanding of a phenomenon we can observe in other Tibetan areas of the People's Republic of China: the economic development of certain regions on the basis of a tradition either invented or manipulated in order to link a place to some glorious event in the past. Gyalthang (Ch. Zhongdian), in present Yunnan province, provides another example. Following the 1998 ban on logging, the county was renamed Shangrila in 2001. This name, which conveys the idea of a mythical paradise in the Himalaya since J. Hilton's book and F.

Capra's movie, was attributed to Gyalthang following a fierce competition between several towns.

This phenomenon is ongoing. There are plans to transform the Sanchuan area in Qinghai in a theme Park dedicated to "Great Yu Tames the flood." Yet, although scientists support the idea that the flood was a historical event that occurred in the area, there is absolutely no evidence of a connection with the Chinese founding myth (G. Roche note on Facebook, August 12th, 2016).

This book is a "must read," not only for scholars of Tibet and China, but for everyone interested in the development and modernization of the Tibetan areas in the PRC. Not only does it provide an insight into the complexity of the Tibetan world, which is far from being uniform, but it focuses on a phenomenon which, because it is recurring, will lead to significant changes in the cultural and economic life of Tibetans.

Forgotten Friends: Monks, Marriages, and Memories of Northeast India

By Indrani Chatterjee. Delhi: Oxford University Press, 2013. XV+451 p. ISBN 978-0-19-808922-3

Reviewed by Philippe Ramirez (CNRS-Centre for Himalayan Studies)

Forgotten Friends belongs to the category of books that make a strong impression as soon as you browse through them. The quality of the publication, the enticing title, the refined language, the impressive volume of notes and references, are signs of a promising read.

The first chapter introduces a "monastic geographicity" in which pre-colonial North-East India's social space was structured around networks of monasteries. As explained in Chapters 2 and 3, this setup was undermined by the advent of the East India Company through the suppression of tax exemptions, which had benefited the monasteries, and of daughters and widows' legal rights to land revenue. Chapter 4 discloses a method of "translating" colonial archives by making their "hybridity explicit": the monastic elite was qualified as "feudal" and their followers deemed "savage". Chapter 5 highlights the "politics of fraternity practiced by monastic subjects" after the imposition of territorial segregations linked to the creation of tea plantations. In the excluded areas beyond the Inner Line, as a form of resistance to colonial militarization, women attempted to restore old monastic values through paradoxical conversion to Christianity, a process that consolidated social amnesia about the region's monastic past.

Surely the central thesis can be nothing but appealing: the dominant representation of North-East India's cultural, political and economic history has completely eclipsed the central role of monastic institutions. Up until the twentieth century 'monastic teachers' and their disciples were the 'basic unit of political society'. These masters emanated from several different traditions but were not strictly confined to them; there were constant exchanges between spiritual lineages and their members always had a hybrid identity. The colonial version of Indian modern history, with a view to dismantling hybrid and women-friendly

institutions, imposed the idea that Buddhism had disappeared from the subcontinent. In actual fact, North-East India's societies had been structured under the influence of 'monastic governments' within a 'monastic geographicity' formed by communities of followers based on 'households where daughters and mothers were stable and brothers, husbands and fathers roved as monks, herdsmen and trader-soldiers' (p. 157).

Anybody would love to believe such a coherent and innovative story. However, there remains the task of grounding it in solid material. We obviously knew about Chinese pilgrims wandering through the region, e.g. seventh-century Xuanzang-not mentioned in the book, and who reported that no Buddhists were found in Kamrupa (Xuanzang 1857, vol 2, 77). We also knew that a couple of Tibetan figures visited Buddhist sites in Assam in the sixteenth and seventeenth centuries (Huber 2008, 138ff).1 The author could have put these materials to good use. Nevertheless, we have so far had little information about the influence these travellers exerted in the Brahmaputra Valley; if they stayed there at all and if they converted a substantial number of locals. It is on this particular point that the author has painstakingly focused her attention, but it is precisely here that her undertaking is the least convincing. It seems that instead of leaving the material to speak for itself, her enthusiasm for a potentially critical thesis made her force the material onto the thesis. As illustrated below, she systematically resorts to biased, taken-for-granted wording, giving the reader the feeling that the case had been settled from the very start.

Attempting to show that everything is intricate and hybrid is very praiseworthy. Nonetheless, this does not mean dispensing with rigour in dealing with the material. And what about this intricacy and hybridity if, in the end, one falls into greater essentialism whereby everything was 'monastic', 'Himalayan' and 'Central-Asian'? Even in contexts where no specific monastery is referred to, any raja is called 'monastic lord', armies are always 'monastic armies', traders 'monastic merchants' and common people 'monastic subjects'. It is not enough to create categories

 1 The pilgrimages by Tibetans to Hajo and Singri in Assam could have been mentioned (cf Huber 2008, 155ff).

to transform them into realities. This is, however, what happens throughout the book where religious, geographical, and cultural categories, if not chronology itself, are systematically telescoped into broad blurred categories that encompass anything of use to the thesis. There are obviously numerous commonalities between Buddhism, Vaishnavism, Sufism and Tantrism, but does this suffice for them to be taken as a single form—the 'monastic'—to be invoked indiscriminately?

The present reviewer can only give his opinion on the parts of the book that concern areas with which he is familiar. However, one does not need to be a specialist of the region to recognize serious problems of 'geographicity'. The Assamese sovereign is described as 'Himalayan bureaucracy' (p. 60) or 'Himalayan svargadeva' (p. 132). It seems that, for the author, every area north of Kolkata is 'Himalayan' and that consequently its precise location is not a matter of concern. Manipur and Arakan, among others, would be 'Himalayan foothills' (pp. 62-63). Similarly, one finds 'the city of Gurkha in the valley of Kathmandu' (p. 87) [in actual fact, 100 km away, as the crow flies]; on the other hand, Bhatgaon [in the Kathmandu Valley] shifts to 'eastern Nepal' (p. 3); Dhaulagiri [these days in central Nepal] is situated in 'eastern Nepal and western Bhutan' (p. 356); 'the hills of northeast of Jytner [Jaintia hills, in Meghalaya] in the direction of the foothills of Bhutanese Assam' (95); or the capital of the Ahom, Garhgaon [30 km south of the Brahmaputra], which is located 'on the north bank of the Brahmaputra' here (p. 135). Carrying on from this, the places where people live are also of little importance. The Kachari [now termed Bodo/Dimasa] would live in 'lower Tibet-Bhutan' (p. 155)—wherever that is.

The same conflations and inaccuracies characterise the treatment of linguistic affiliations, e.g. 'The Tibetan-Burman-Bengali speaking worlds of eastern Bengal and Assam' (p. 67). According to the author, obtuse British travellers were unable to properly describe what they saw due to their linguistic incompetence in these unknown languages: 'Buchanan, like most Englishmen of his time, did not know the hybrid languages being spoken—least of all the Tibetan-inflected Bengali and Maithili' (p. 107). To re-establish a more accurate linguistic image of the region, the author reveals previously undocumented idioms, such as 'hybrid Tibetan-Nepali languages' (p. 57), supposedly spoken by the Kachari [Bodo] (p. 236), among others. And she extensively resorts to supposedly

Tibetan terms that often do not sound Tibetan at all and are impossible to trace as no transcription convention is specified and, generally speaking, no source is given.² The Assamese place name 'Dimarua' would come from a mysterious 'Tibetan' dim bsekh, 'prisoner of war' (p. 60). A simple search in an Assamese dictionary would have offered an alternative; dimarū simply means 'fig-tree'.3 And bunjuu would mean 'troops', kungur a term for self-reference, naga a yoke . . . The Khasi will be happy to learn that their designation comes from a Tibetan word meaning a 'group made up of priests and laity' (p. 95). Mi-ri, as the Mishing were called in colonial times, would be a Tibetan term of reference for 'a generic hillman's collective' (p. 189) [if this had at all existed, it would in fact have been ri-mi='hill-men']. Abor [now Adi living in Arunachal], the Assamese for 'disobedient' according to dictionaries (ā-bar) becomes 'traders from Northern Tibet' on the basis of a supposedly Tibetan a.bo.hor; hor actually means Mongol but a bo hor does not correspond to a possible Tibetan form] (p. 189).

As the book is supposed to deal with monks, the reader might have expected a more rigorous introduction to the main monastic traditions in the region (pp. 36-42), and a description of the monks or adepts whom the author asserts had such an important role to play. Instead, we are provided with a few brief mentions of figures whose religious nature and cultural affiliation are asserted in a peremptory manner but seldom demonstrated in a consistent way. For instance, to show that the Assamese sovereign was of monastic origin, the author underlines (p. 39) that, according to a chronicle, he and the Deb Raja of Bhutan belonged to the same lineage; and that consequently the Ahom chief 'hailed from a clan of monastics or disciple-patrons of a Tantric Buddhist monastic lineage'. Claims to brotherhood are indeed common in Assamese (and other) chronicles and must often be taken as claims to friendship, or claims over the territory of the 'brother'. Furthermore, we know that in Bhutan's dual government in the seventeenth to nineteenth centuries, deb raja (or druk desi) was indeed the secular head,

 2 My comments on the supposedly Tibetan terms rely on the advice of Fernand Meyer and Rémi Chaix from the Centre for Himalayan Studies, CNRS.

³ My reference for Assamese terms is Baruwa 2007.

while *je khenpo* or *dharma raj* was the chief abbot. Deb raja's office could be occupied either by a monk or a layperson, and thus referring to him in this way does not make Deb Raja a 'Himalayan Buddhist monk' (pp. 37, 88). The fact that political power included a divine component in this region (and elsewhere), and that titles may reflect this, does not suffice to reduce holders of political power to religious figures. Contrary to other parts of India, in Assam *gosāī* does not only designate ascetics and deities but also non-ascetic gurus and lay dignitaries of the Ahom sovereign's lineage. The Bar Gosain, whom the author enthusiastically labels 'Sakta Tantric sannyasi' (p. 140) was in fact a minister at the Ahom courts, and a king in Jaintia. That ascetics, or more possibly gurus, became ministers or kings so that their successors came to be called Bar Gosain is not a logically impossible thesis; it simply needs to be documented.

Religion is ubiquitous, and multifaceted: for the author, worship here and there of water, soil and mountains reveals a 'shared cosmography of Eastern India and Inner Asia' (p. 44)—why not further away? -- and a six-branch star found near a fort suggests that 'fort holders along the Surma-Barak were followers of a conjoined Judaism, Zoroastrianism, and Tantric Buddhism' (pp. 48-49).

Kinship is another realm where the author uses concepts in a high-handed manner without actually mastering them. We read 'matrilateral lineages' (p. 59): we already knew about matrilineal descent, about matrilineages, about matrilateral kin but what could a matrilateral lineage be? 'Exogamous marriage' (p. 61) is apparently used for a polyandrous marriage. Regarding princely marriages that are supposed to have taken place between half-brothers and sisters in Ava (p. 128): 'such matches were expressed as patrilateral cross-cousin marriages'. The example given features marriage between two parallel, patrilineal cousins: thus neither cross- nor half-siblings. And 'patrilateral cross-cousin' with no mention of the person of reference is nonsensical because the relationship between cross-cousins is patrilateral from one cousin's point of view and matrilateral from the other's. Is it a trick to impress the readers or does anthropological rigour fall within the evil 'ethnologizing' (p. 61) of which the East India Company was guilty?

I am not claiming that all the proposals put forward by the author are of no value, but rather that they are either not at all supported or

shoddily supported. For instance, the fact that 'monastic dormitories served as epicentres for a network of lay and ordained people' (p. 42) is true for Assam but is, surprisingly, not described in detail. And no fact or reference is provided to sustain the fascinating idea that monastic centres were linked by 'mobile monks and militia'. Although there might have been sound illustrations of 'monastic governance', the *satra* (monastery, abode of a guru), the major nexus of Assamese social stucture, and the Moamaria, a Vaisnava sect which overthrew the Ahom State in the eighteenth century, are barely mentioned; nor does the word Ekasaraṇa (Assamese vaisnavism) appear, nor the name of Shankardeva, the major figure at the origin of this tremendous religious, social and political reform movement in Assam.

In the same way, the idea that many current ethnic groups originated from groups of followers of a religious figure (p. 46) deserves to be investigated thoroughly. Instead, the author defines it *a priori* as a general rule, applicable to all tribes. As the tribes are supposed, according to the author, to be a creation of the colonial agenda, then logically all present tribes were groups of adepts (pp. 358-359). Finally, the book ends up replacing an old essentialism (colonial and post-colonial) with a new essentialism, in which people's specificities and the region's cultural complexity disappear, buried under grand narratives.

But let me leave the author to conclude: 'Professional postcolonial scholars had learned not to read the Mahabharata to make sense of Himalayan-plains histories. Yet, the storyline of that epic—with its focus on friendships dishonoured, marriages betrayed, battles fought—is suggested by no less than colonial archives itself' (p. 368).

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Response to Philippe Ramirez

Indrani Chatterjee (University of Texas at Austin)

When Forgotten Friends was written, James C. Scott's influential scholarship on *zomia* dominated the intellectual horizon. It proposed an antagonistic relationship between states centered on the plains and societies evading such states by taking to the hills. Yet historians of medieval Burmese history and decolonizing scholars from minority groups inhabiting such hill-spaces in modern Bangladesh rejected the dichotomous categorization of 'hillmen' - 'tribals' vs. plains-dwellers.² Though attentive to this divide, Forgotten Friends tried to offer a third way: by trying to historicise the forces that made inter-connected people appear as hill-tribes, on 'the periphery of the periphery on the road to nowhere' by the twentieth century. ³ The questions of the book were directed at nationalist postcolonial Indian Bengali and Assamese historians, asking them if they had forgotten these relationships of a not-so-long-ago past. The author included herself among the historians whose omissions the book traced over time: her imagined audience is 'us postcolonials' (p. 14). Unfortunately, Ramirez ignores all these academic and political contexts and writing strategies when he charges me with using 'biased, taken for granted wording' (p.2).

Ramirez also objects (p. 2) that "(e)ven in contexts where no specific monastery is referred to, any raja is called 'monastic lord'." This shows that he has not attended to the details given in Chapter 2 or in Chapter 3 of *Forgotten Friends*. In the latter chapter, and interspersed through Chapters 4-5 (pp. 180-188, 213-223, 255-262) is an account of a lineage of Vaisnava teachers and pupils who held at least one center (*akhra*) in Mughal lowlands of Nadia (Nabadvip), center of Chaitanya Vaisnavism. From here, they periodically connected to societies in the hills and

¹ Scott (2009)

² Aung-Thwin (2005); Tripura (2010).

 $^{^3}$ Cited in John Parratt, Wounded Land: Politics and Identity in Modern Manipur, New Delhi: Mittal Publications, 2005, Introduction.

mountains to the east (Manipur) north (Kachar) and 'Majuli island' (in the Brahmaputra river). There are two site photographs from Nabadvip on pp. 130-31 of the book, and a Buddhist sharecopper's shrine on p.40. I had cited enough epigraphic and literary clues, especially in the Introduction, Chapter 1 and then in the Bibliography, to proceed with noting the presence of institutions Englishmen called *khongjai*, the Burmese called *kiaungsa* (pp. 39-40, 107) as the 'dormitories' that Ramirez overlooks in his comments.

Ramirez demands 'evidence' (p.3) for my reference to a 'Bara Gosain' as a 'Saiva Tantric'. The epigraphic text was in Gupta 1933, in the Bibliography (p.392) and is explained in the text (p. 100). This text referred to a 'Mahadevi Kasasati' as chief consort (narapateh mahādebyā in one text, patni in another) of the Bara Gosain; she donated lands (and occupancy tenant-cultivators) to the icon of a fierce female deity (Kalika Devi) 'lodged' in a Lilapuri Sannyasi's matha in Jayantipura. Such icons were shared between Saiva-Sakta rituals and worship-groups. The Bara Gosain may have been 'king' of Jayantia, but he was also an initiated worshipper of the fierce deity.

In overlooking the evidence provided in the chapters, Ramirez fails to appreciate the significance of the book's descriptions of Vaisnava gurus (such as Jaisimha and his spiritual-genealogical successors), their Saiva tantric 'friends' and their Buddhist [English 'kuki'/ modern India's 'Scheduled Tribe' renamed Bodo] tenants and soldiers going between Manipur, Nabadvip and 'Kachar'. This is what made up the 'monastic geographicity' discussed in my book (see below). These collaborations also suggest that historical conditions, not doctrinal beliefs, pushed men and women of different confessional systems to behave the way they did (including assassination, when necessary); pacifism was not a given either. Forgotten Friends lodged the mobile monks and soldiers within a well-known pattern of intra-lineage dissensions and proliferating divisions (samhatis) accepted by scholars as characteristic of 'Assamese' Vaisnavism.⁴

Instead of appreciating what I did achieve, Ramirez faults me for not having provided details of the *satra*, which he translates as a 'monastery'

⁴ Goswami (1988: Introduction); also multiple networks in Chatterjee (2016: 175-216).

and 'abode of a guru' (review's p. 3). I was more cautious: older epigraphic usage treats satra with prefixes, such as 'anna' (Sanskrit for grain) so that an annasatra was just an 'almshouse' without any particular guru resident there. ⁵ Similarly, a satsangi satra is mentioned without any 'guru' or leader even in the fifteenth century. ⁶ In 1835, when the Company's government annexed all parts of the valley, there were 386 satras in one province (Kamrup) alone; they continued to be divided between 'charitable' and 'religious' endowments. Furthermore, primary data (from that period) relating to all varieties of satra were unavailable. In the twentieth century, two or three of the prominent satra sponsored disciples to write 'histories' of specific satra.⁸ Ramirez is not alone in wishing I had more data to perform the tasks of a 'more rigorous introduction to all monastic traditions' in the region (p. 3). But if he had read the details in Chapters 4-5 he would have understood why all monastic lineages and traditions did not survive to provide the necessary information.

If Ramirez has all the data that supports his statement that the *satra* was 'the major nexus of Assamese social structure', then he should please share the evidence with us. And if he believes his own statement, then his critique of my characterization of monastic government is a contradiction, as is his critique of me for using 'monastic government' as a 'form' common to Vaisnava, Saiva, Buddhist and Sufi. He notes the "numerous commonalities between Buddhism, Vaishnavism, Sufism and Tantrism" (p.2), but does this suffice for them to be taken as a single form—the 'monastic'—to be invoked indiscriminately?' There is enough scholarship on *khanqahs*, *akhras*, *viharas* and *mathas* (all found in the Bibliography) for me to be puzzled by his objection to my treating 'monastic government' as a common *structural* form. Or is *he* conflating 'monastic' with 'ascetic' gurus (as he appears to do in his comment on 'Asam gosai' on p.3)?

 $^{^{\}rm 5}$ Tezpur Copperplate of Vallabhadeva of Śaka 1107 (or 1185 CE) in Sharma (1978: 291-301).

⁶ For Husain Shahi official remembered in eighteenth century, see Mahesvar Neog, *Prachya Sasanavali*, Part I, p.157.

⁷ Officiating Collector Kamrup to Commissioner Assam, 1 Sept 1835, Assam Secretariat Progs, General Department, 1836. File 298 G.

⁸ Sharma trans. Khaund (2011); Nath (2012).

In my book, I tried to re-imagine and reinvestigate a series of disaggregated spaces connected by mobile monastic teachers and followers by using Wim Van Spengen's cultural-economic concept of 'monastic geographicity'. The concept combined both movement and stability. Though Ramirez reduced the twinned aspects to physical geography alone, I thank him for listing in great detail the errors of geographical naming in Forgotten Friends. Some of these errors are based on a misreading on the reviewer's part: for instance, the reference to Jyntea is from an eighteenth-century Englishman's letter (endnote 51, p. 123). Although the reviewer mocks my placing 'Jaintia' (modern Meghalaya) in the jurisdiction of 'Bhutanese Assam', the historical evidence from the eighteenth and early nineteenth century supports this placement. Regions that postcolonial modern Indians (and European ethnologists-ethnographers) treat as 'Assam' - places like Jorhat, Dibrugarh, Tinsukia, Sibsagar, North and South Kachar - were subject to the jurisdictions of both Tibetan and Bhutanese powers in the eighteenth century. Evidence for this is found in Aris' translation of the Rayal-rigs written by a monk, 'Ngawang of the Byar', in 1728.9 A map drawn by an English ensign, Francis Wood, in 1793, confirms the jurisdiction of 'Bootan' over all lands east of Kamrup and Darang. 10 Even after 1814, Hamilton reported a tradition that a much greater portion of 'Kamrup' formerly belonged to the Bhoteas than does at present.' 11 Furthermore, his informants told him that 'Kamrup' included portion of 'Moymonsingh' [presently in Bangladesh] 'Srihotto' [Sylhet also in Bangladesh] together with 'Monipur, Jaintia, Kacchhar and Assam'. 12 Hamilton was told that the word 'Bhot' included two kinds of Tibetan and related speakers: for 'these Bhoteas were really the Chinese, whose

⁹ Aris (2009: 12-85).

 $^{^{10}}$ See 'Route from Gwahatty to Kolltah Koosy on the Borders of Bootan, Surveyed in February 1793 by Ensign Wood, Bengal Engineers', London, British Library, OIOC, Map Collection, X/2172.

¹¹ Appendix C, in Suryya Kumar Bhuyan ed. Kamrupar Buranji or An Account of Ancient Kamarupa: and a history of the Mogul Conflicts with Assam and Cooch Behar upto AD 1682, 1930, p. 118. The editor's preface puts the source of Hamilton's original manuscript in the India Office Library, London.

¹² Ibid, p. 113. Emphasis mine.

histories, I believe, mention their conquests in this part of India, and who might naturally be confounded with the Bhoteas'.

This geography is also supported in Huber, which the review faults me for not reading (even though Huber is cited twice in the Introduction- once at the end of Note 3, page 29 and another time in Note 22, page 30). The Introduction of Forgotten Friends implicitly engaged Huber because though he concluded that all of Assam was 'Tibetan' from the mid-seventeenth century, he said little about the claims made to both Kamrup and 'Koch Hajo' as Mughal-held sites in the seventeenth century. 13 Till the twentieth century, a brick-built mosque stood in Hajo bearing an inscription of that date and naming its builder as Lutfullah Shirazi (an Iranian).14 The inscription calls the site Shuja'abad, after the prince Shuja who was Mughal governor of Bengal-Bihar till 1658. As a postcolonial historian of India, I acknowledged the pluralist cohabitation of all sites from the beginning of my text (See Chapter 1) while allowing for the peculiar historical and cultural fact, established by epigraphic records, that the same site had two different names. In Huber (pp 118-21), the cultural politics of geographical naming is limited to that 'toponym transfer' or doubling of place-names, which expressed a 'sophisticated ontological connection' between India and Tibet. Furthermore, though he further limited this discussion to sacred sites alone, something of this doubling was also characteristic of non-Vajrayana sites, such as 'Rongpur', the name of one such site taken to be the 'capital' in the eighteenth century Assam ('Rhunnpur' in Wood's map; subsequently renamed Sibsagar) as well as the name of a city and district in Mughal Bengal. As for Gurgong, which I regrettably placed on a wrong bank of the river, this was because even in 1794, it was 'full of jungle, in ruins and totally deserted', therefore absent from all maps drawn by the British, whether Wood's map or any other until 1875. Modern geo-spatial mapping tells us its location better.

¹³ Riyaz-us-Salatin, p. 168.

¹⁴ Annual Report of the Archaeological Survey of India for the year 1912-13, Eastern Circle, 1913, p. 42; for the epigraphic text on the mosque built by a disciple of *pir* Shah Ni'matullah, see Desai, (1953-54), pp. 46-49.

¹⁵ Col. Frances Wood, 11 February 1824, IOR, H 662, Folios 215-219.

Ramirez's dismissal of the book's historical geography ends up being a dismissal of cultural history altogether. On the one hand, he accuses me of equating everything 'north of Kolkata' with the 'Himalayas' (p. 2) and on the other hand, he recommends I read Huber (2008) and make better use of his materials (p.1). But Huber (pp. 213-231) himself referred to the Panchen Lama's possession of lands in Hughli (modern West Bengal, India) called 'Bhot Bagan', administered by the Giri Gosain lineage among the Dasnami, complete with a picture of the last Giri gosain administrator of the estate in 1928. The 'Tibetan Garden' in Bengal continues to exist, even though much of the matha (or monastery) buildings are uninhabited now. 16 Furthermore, 'Tibetan Buddhism' went much farther south than even Kolkata: in the seventeenth century, the Jesuit, Father Cabral had identified 'Tibetan Buddhists' in Arakan, noting that the language and 'the religion of the Maghs and that of Tibet are identical' and confirmed from the monks ("Rolins") that they wore the same dress as the Tibetan lamas. 17 In the same court and time, Muslim soldier-poets like Daulat Qazi, Alaol and others flourished as poets of polished Bengali verses.

Ramirez resists the territorially disaggregated but socially mediated form of spatial connectivity that the book called 'monastic geographicity'. On p. 88, Forgotten Friends had outlined the structure by which both Tibetan and Bhutanese monastic governments governed sites far from the original monasteries in the mountains by appointing their own delegates. Bijni, mentioned in Forgotten Friends (pp. 117, 194, 203-5), was located on the north bank of the Brahmaputra, and its 'raja' or governor was appointed by a 'Deb Raja of Bhutan'. The Bijni raja's jurisdiction extended over people living on lands on the south bank of the Brahmaputra river. One of these was Hawraghat, bordering on hills inhabited by cotton-growers called 'Garrows'/ 'Garo'. Since the seventeenth century, the latter had sent elephants from the hills here to a Mughal administrator (of Rangpur and Dhaka), and given cotton to a

¹⁶ For photographic record, see http://double-dolphin.blogspot.com/2015/05/bhotbagan-math-tibetan-buddhist-temple-howrah-ghusuri.html, accessed 2 January 2017.

¹⁷ Travels of Sebastien Manrique 1629-1643, vol. 2., 421.

¹⁸ See correspondence in Home Misc 650, pp 65-67, 78-86 and F/4/595/14301.

Bijni zamindar in exchange for grain. Since Bijni was an appointee of the Deb Raja of Bhutan, Hawraghat also counted as an estate in the jurisdiction of a 'Himalayan' Buddhist government. By Regulation of 1822 (mentioned on p. 191 of the book) and through the rest of the nineteenth century, the Company and Crown governments barred Bijni and Bhutan from any connection with 'Jaintia, Garo and Khasi hills'. ¹⁹ In the twentieth century, these were all reorganized and reassigned different names: Meghalaya, Karbi Anglong and others. Two centuries of colonial re-engineering succeeded in erasing all memories of northerly affiliations in the past. Ramirez's comments regarding 'geographicity' betray the continuing effects of these erasures in the present.

This is equally true of his comments regarding 'Kachar' of Forgotten Friends. He ignored the book's discussion of the problem of its identification (p.49) on the basis of both the English and Assamese records. The first was Kirkpatrick's identification of late eighteenth century-'Kuchar' with 'lower Tibet'. 20 A rNyingma-Bon text of 1789, also translated by Aris, also identified 'villages of the Kachari (Ka-tsa-ra)' at a place six or seven days journey south of Paro, in a place 'now possessed by Bhutan (lHo-`brug).'21 An eighteenth-century clerk in the Mughal and Company-governed Kuch Bihar household corroborated the Drukpa monastic government's control of lands in the plains and valleys for the same period.²² Even in 1835, the Company's officer in Darrang complained of 'Kachari subjects' of Bhutias who reside on their possessions on the plains at the passes.'23 This kind of 'Kachari Duars' had been identified in the early twentieth century by a missionary observer also who referred to it as a 'broad belt of country at the foot of the Bhutan Hills'.24

¹⁹ See the separation of 'Garrow' from Goalpara in Assam Commissoner's File 647, 1-11, 1866; for separation of 'Khasia' from 'Garo' see AC 635, 1871-73; for separation of Bijni, Sidli and Bhutan, see Assam Sectt, BG File 5-9, 1872.

²⁰ Kirkpatrick (1811: 45, 58, 110).

²¹ Aris (1995), p. 25.

²² Jayanath Ghosh (Munshi), *Rajopakhyan*, 1874, pp 72-3 and passim.

 $^{^{23}}$ Collector Zillah Darrang to Commssnr Assam, Sectt Progs., General Deptt., paragraph 124.

²⁴ Endle (1911: 8).

My error regarding 'Gurkha' is not geographical but grammatical: instead of 'in' the preposition should have read 'over' the valley of Kathmandu. The very next sentence in that paragraph conveys the purpose of the preceding sentence: to show that the kingdom of Gurkha [Nepal] had extended its sway over the eastern and western hills and plains between the 1740s and 1816, and that it clashed with other interrelated polities. (p. 87) I regret these errors - especially my identification of a Deb Raja as 'monastic' when he was only a layman [though a Buddhist still] under the authority of the Panchen Lama. But correcting for these errors still does not destroy the basic attributes of monastic geographicity - that a 'political and commercial intercourse has always existed between Bootan and Assam, as well as between the latter and the little kingdom of the Muguloos' [another name for Manipuris]. 25 Thus though Ramirez (p. 3) scorns my reference to Eastern India/Inner Asia, no other meaning can be inferred from the references to 'Kaifeng' (in modern China) and other such mountainous sites in the genealogical verse narratives (in Bengali) written in the Tippera courts.26

Similarly, though he disdains my use of the term 'Himalayan' for all parts of a connected chain of hills and mountains in the eastern belt, I stand by my use on grounds of geomorphology as well as on cultural-historical classificatory nomenclature. The first usage puts the Chittagong Hill Tracts, Arakan and hills along modern Myanmar border [where Manipur was carved out historically] as 'young fold' mountains making up a broad belt comprising the Lesser Himalayas.²⁷ The second usage is also found in studies of architecture which club together stylistic similarities of temple construction between the western (Himachali) end and the eastern (Brahmaputra valley) end with curved roofs, extensive tanks and particular modes of construction across both ends of the chain.²⁸ This cultural affiliation was accepted by the satra historian who admitted that families of Rajputs and kayasthas from

 $^{^{25}}$ Letter of John P.Wade of July 4, 1802, to 'My Dear Sir'; Found in Private Papers of Sir John Malcom, IOR, H 736, pp 79-83.

²⁶ See Chatterjee (2002: 108-143); Chatterjee (2004: 222-260); Chatterjee (2008: 250-287).

²⁷ Wirthemann, trans Busche, 213.

²⁸ For the architecture, see Bernier, 1997, 21-22.

'Kulu, presently in Himachal Pradesh, were known as the Kullutiya in Assam'.²⁹ These cultural connections were visible in painting (by a 'Dilbor' and 'Dosain') in a text composed in 1734.³⁰ In 1807, Hamilton had been told of a group of 300 soldiers from 'western India' who lived in Assam, married to local women and living on lands allotted for their support.³¹ Major Jenkins, the administrator of the valley annexed from the Burmese in 1826, described a great-grandson of one of the brothers of a 'svargadev' Siva Simh (1714-1744), a man called Purandhar Simh, as a 'good-looking intelligent man who speaks fluent Hindustani'.³²

Swargadeva as Himalayan: Ramirez has dismissed my characterization of an entire line of these eighteenth and nineteenth-century swarqadev as 'Himalayan bureaucracy' (p. 60) or 'Himalayan svarqadeva' (p. 132), and my naming the gosains (pronounced *qohains*) the actual authority in government. I did so on the understanding that 'appointment' of men by an administration scattered between the bKargyupa and Gelugspa centers in the Himalayas (west and east) made an appointee 'Himalayan' in affiliation, not by birth. I had called this figure a 'bureaucrat' because of an account by Captain Welsh who met the svargadev Gaurinath Simha in 1792-3. He described the 'king' as a 'first executive officer' distributing titles, honours and offices but 'neither lord of the soil nor possessing power over the lives and property of his subjects. He could not make peace and war without the concurrence of the aristocracy'. ³³ In 1836 also, another Englishman dismissed the 'Raja' as none other than a 'chowdhri' [petty land-lord] for he had 'no judicial or ministerial powers'; his duties were limited to assisting the police and distributing allotment of revenue.34

Ramirez proposes that the gohains were the 'aristocracy' and that 'gosai were not ascetics, but also non-ascetic gurus' (p.3). I agree, but

²⁹ Sarma (trans Khaund) 63.

 $^{^{30}}$ See 171 paintings in P.C.Choudhury ed. *Hastibidyarnava of Sukumar Barkath*, Gauhati: Publication Board, 1976.

³¹ Hamilton, An Account of Assam, ed. By S.K.Bhuyan, Guwahati: DHAS, 1940, p. 23.

 $^{^{32}}$ Private Journal of Major Francis Jenkins, Mss Eur F 257/3, unpaginated original, British Library, OIOC.

³³ Captain Welsh's Report on Assam, 1794, in M. Bose (1979: 39).

 $^{^{34}}$ Collector of Kamrup to Commissionr Assam, 28 July 1835, paragraph 6.

where in the text had I suggested that asceticism was the sum total of monasticism? The eighteenth and early nineteenth-century files reveal that 'gosai/gohain' were abbots of different lineages: only such men were allowed to hold 'brahmottar' lands everywhere in the subcontinent. In his account of Assam of 1800, J.P. Wade called these gohains 'brahmuns of Santipoor, Nuddea and other Western districts'.35 This was the same 'Nadia', a regional center of Brahmanic Vasinavism referred to already. The same reference to 'Kanouge and Santipore Brahmans' as the real governors was stated on p. 73 of Forgotten Friends, endnote 137, and is overlooked by Ramirez. Not only was lowland 'Mughal Bengal' connected to the north bank of the Brahmaputra River, but the svargadeva of the eighteenth and nineteenth century was not the Absolutist Monarch of hyper-nationalist mythmaking to which Ramirez appears to have also succumbed. He was far more akin to other figures guided by various gurus in the same landscape. Furthermore, Ramirez is wrong to state that I have not mentioned the 'Moamaria, a Vaisnava sect which overthrew the Ahom State in the eighteenth century'. The Moamaria are mentioned on pp. 132-34 of Forgotten Friends in the context of an intra-monastic sectarian dispute among two lineages.

Ramirez's Use of 'Religion': At one and the same time, Ramirez dismisses the book for having too much 'religion' and for not mentioning the particular name by which modern Assamese scholars refer to Vaisnavism ('ekasarana'). This is odd for two reasons. The first paragraph of the Introduction (p.1) spelled out that Forgotten Friends sought to study a basic unit in 'political society' in precolonial India. The term 'political society' has been in English print since the eighteenth century and had continued into postcolonial studies (Chatterjee, 2011). Second, taking my cues from critical scholars such as Talal Asad, Saba Mehmood and others, the text sought to avoid as much as possible using the term 'religion'— except once in the case of 'marriage across religious communitarian' identities. Based on reading Sanskrit epigraphia (touched on in the Introduction and Chapter 1) and mentioned in the Bibliography, the text replaced 'religion' with 'monastic lordship' and 'monastic subjection', lay bureaucracies and such like. 'Ekasarana' does

³⁵ J.P. Wade to Colonel W. Kirkpatrick, March 20, 1800 in Sharma (1927: p. iv).

not crop up in that record even once. The epigraphic record could not be translated into English without adding another 50 pages in print – pages that the publisher did not allow me.

Referring to the Tibetan travellers to Assam mentioned in Huber, Ramirez (p.1) says there is little information about whether these Tibetans 'converted a substantial number of locals' and blames <u>me</u> for having focused attention on this in a 'least convincing' manner (p.1). Nowhere in the text have I presumed on 'religious conversion' at all. My text was content to speak of labor-services, gifts, and other practices that could be *interpreted* as those of adherents and subjects of a government. The job of interpretation is mine – and I strongly differ from the ethnographer in his method. Unlike the ethnographer who has privileged access to living informants, a historian cannot leave 'the material to speak for itself' (review, p. 1). I take Ramirez's objections to mean that he objects to my interpretive perspective in a Buddhist cosmology. This was dictated by the evidence (supplied in the book) and I am willing to defend it further with evidence.

After 1826, when large parts of the Brahmaputra river valley were annexed from Burmese-speaking Buddhists and various schools of Saiva and Vaisnava, many actors developed a stake in erasing the footprints of the Buddhists from their midst. This included the military officer Captain Jenkins, who gathered a 'Burma' manuscript 'in the dialect of the Khamti' and sent it to the Asiatic Society. The man who helped to translate one of the pages of the manuscript was the Company's appointed Sadar Amin, Juggoram Khargaria Phokan at Jorhat.³6 This translator failed to notice that the first lines of the 'Burma manuscript' Jenkins had presented to the Asiatic Society contained 'an invocation to Buddha in the Pali language and Burmese character'.³7 A similar failure to acknowledge the Buddhist presence was evident in the career of the American Baptist missionary, Reverend Nathaniel Brown (1807-1886). In March 1836, when Brown arrived at Gurmura Creek (on a branch of the

 $^{^{36}}$ Major F. Jenkins, 'Interpretation of the Ahom Extract Published as Plate IV of the January Number of the Present Volume', *JASB*, vol. 6 (71), 1837, pp. 980-984.

³⁷ Editor's Note at end of Rev. N. Brown, 'Alphabet of the Tai', *JASB*, vol. 6, part I, 1837, p. 21.

river Dibang), there was a 'Khamti village of twenty houses and a monastery with six or eight priests'.38 Brown found these monks speaking the same language as the men of Ava, and their religion the same as that of the Burmese [i.e. Sthaviravada, shared with Sinhala Buddhists of the periodl. One among these monks, an orphan named Kola, renamed by his Buddhist monastic seniors as 'Pingtora', had already spent seven years in the monastery when at the age of 16-18 years, he set aside his 'yellow cloth', his honorable status (phra) for a commoner's garb and the opportunity to learn English. The defrocked Buddhist was renamed - after a sponsor in Vermont - 'Elijah Hutchinson'. 39 Within two months of the ex-monk's joining the mission at Sadiya, the American missionary had devised a system for re-writing the languages he heard as 'Assamese' and 'Shyan of the Khamtis' in Romanized script.⁴⁰ Though he could not have done this without the labor of the ex-monk, nothing of the latter's work was ever acknowledged. Instead, the missionary reported the entire region as a 'blank' space, home of a people whose main achievement had lain in remaining outside 'the pale of Hinduism'. 41 Both British military governor and his missionary client insisted that 'no trace of Buddhism is to be found in the religion of the Ahoms' a fact that elicited considerable surprise from the editor of the Asiatic Society's journal, James Prinsep. 42

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³⁸ Nathan Brown's Journal, dated March 26, 1836, *Baptist Missionary Magazine* (henceforth *BMM*), Massachusets: American Baptist Missionary Union Committee, 1938, vol. 17, p. 118.

³⁹ Journal of Nathan Brown, Sadiya, Entries for 2 April 183[6?] and 19 May, year not given, Official Correspondence, American Baptist Historical Society, Valley Forge, Philadelphia, folios 5a, 8a-b. The collection has subsequently moved to Atlanta, Georgia; for the full description of the ex-monk, see *Baptist Missionary Magazine*, vol. 17, pp. 170-171; for the original sponsor after who the ex-monk was named, see donation list of 1841 in *BMM*, vol. 21, p.267; for the assertion that the ex-monk then served as a schoolteacher within the missionary educational system, see Brown (1890: 134).

⁴⁰ Letter of Brown, April 7, 1836, in H. K. Barpujari (1986: 123). This compilation of documents is neither complete nor chronologically ordered and should be checked against the *Baptist Missionary Magazine* as appropriate.

⁴¹ Annual Report of 1838 in *Ibid*, p. 22

 $^{^{42}}$ Editorial Preface in Rev. N. Brown, 'Alphabet of the Tai Language', *JASB*, vol. 6, part I, 1837, pp. 17-21.

My taking an interpretive stance in Buddhist doctrine was one of many possible ways for a decolonizing historian to illuminate an alternate past, deliberately suppressed by those who benefited by war. It also affords a historically informed perspective from which a postcolonial scholar can intervene in a hyper-nationalist modern Indian debate that equates Christianisation with denationalization. The words 'paradoxical conversion' (review, p.1) betray the reviewer: Chapter 6 in Forgotten Friends finds nothing paradoxical. Instead it normalizes the Christian presence in the hills after 1870s. In order to reveal the ahistoricity of modern right-wing Hindu attacks on Christian populations in the subcontinent, the chapter places the Christian missionary's household in an observable continuum with non-Christian (Vaisnava, Saiva) teachers' establishments in the same and adjacent terrains from an earlier period. The chapter dismissed all talk of an interiorized understanding of 'conversion' with an observable practice of 'repair', using the vernacular word 'sarana' or refuge-taking as my guide. The project was not to 'replace a complex world' with an 'essentialism' of my own but to make each kind of teacher-pupil lineage legible and equally valid in a complex and inter-active world of the past before nation-states.

It is unfortunate that Ramirez characterizes the book's attempt to keep <u>all</u> groups alike visible as a 'telescoping' of 'religious, geographical, cultural categories as well as of chronology itself' (p. 2). This is based on a serious misunderstanding of the methods and message of the book itself as well as a misrepresentation of the strictly linear chronology adopted in its organization. Chapter 2 studies eighteenth-century shifts, Chapters 4 and 5 are devoted to the nineteenth century, Chapter 6 brings the rule of ethnology in the early twentieth century. And the conclusion brings it into 1987 and beyond. How much more chronological can a historical book get?

Language Dictionaries/ Histories: As for Ramirez's comments about my linguistic choices, 'conflations and inaccuracies' (p.2) and conceptual confusions, and his foregrounding of 'Assamese'-English dictionaries on the basis of which he launches one of the more detailed criticisms of the book, let me direct the readers to a corpus of Persianate Bengalilanguage (and Gauriya-script) correspondence sent from the administration of the Dalai and Panchen Lamas in the late eighteenth-

early nineteenth century.⁴³ The identical Bengali language and Gauriya script correspondence can be found under the seal of the Raja of Cherra till 1857, significant in that this figure also had agreements with various other leaders (sardaran-i-khasiyan waqarah).44 Even in 1961, Chie Nakane had noted that the 'Garo language has much commonness with Tibetan language' which she read and spoke (Nakane: 1967, 14). While my reliance on a Tibetan dictionary (Melvyn Goldstein) was historically appropriate given the archival and other evidence cited already, let us work for a moment with Ramirez's preferred 'Assamese' dictionary to translate some of the letters of the later seventeenth century (used to write pp. 57-62 of Forgotten Friends). Here is a line from a letter from the Jayantia Raja [supposed to be in modern Meghalaya] to the governor of Gadhgaon dated 1674 CE: 'shokol dine dimarua amar khatoniya; taabe je tumi odhikar koro ito boro anuchit'. 45 The respondent asserted that he had killed a Mughal commander and secured the dimarua for himself. My reading of the term dimarua (based on the Tibetan dictionary) not only paid close attention to the historical and dated evidence of the letters which revealed that these were people either deserted by a Mughal army or been captured from it. It also preserved the sense of the term as human laborers (khatoniya), whom the Jayantia man claimed as his. Substitute Ramirez's 'Assamese' dictionary use for dimarua as 'fig-tree' and the result would leave the Jayantia man illogically claiming 'fig-trees' as his 'laborers'.

As for 'Abor' and 'Miri' from the northern parts, the occupational reference came from M'Cosh's text of 1837 (pp. 188-189), as much as from an intentional avoidance of reading back into the past names of groups in the twentieth-century present (such as Adi etc that Ramirez suggests). Furthermore, the 'Mongolian' ethnicity of a group says absolutely nothing about historical chronology (since Turko-Mongol groups existed in the subcontinent from the thirteenth century) or about their political-economic roles in the eighteenth or nineteenth

⁴³ Sen 1942.

 $^{^{44}}$ See document in AC 424 of 1861, submitted by Sri RamSimh Raja of Cherra [subsequently told by the colonial government to use 'Siem' and not 'Raja'].

⁴⁵ Jayantia Buranji, ed. S.K. Dutta (1937), p.43.

century. This was a point I had already alerted readers to on p. 49 of my book. Moreover, the terms 'Mongoloid' and 'Mongolian' have been resisted by all scholars living and working in the terrain since the late nineteenth century. 46 I followed this scholarship as well.

Perhaps readers, and Ramirez, already know the history of the development of 'Assamese'. But it bears repeating that from 1714 CE till the 1820s, all coins and manuscripts found in the network of societies in the Brahmaputra valley used the same script called 'Gauriya', used in writing 'Maithili-Bengali' elsewhere. From 1837, the script that the missionaries developed as 'Assamese' differed from the Gauriya script in two letters of the shared alphabet – the 'r' and the 'b'.⁴⁷ The segregation subordinated Bengali-writing lower-caste men as well as Muslims from Sylhet, to a new Calcutta-educated set of clerks employed by the newly arrived British administration in Assam. Hemchandra Baruwa's (Assamese-English) dictionary upon which Ramirez relies is a missionary-sponsored artefact from the late nineteenth-early twentieth century which needs far greater historicisation before it is taken as the basis of all analysis.

Kinship and Ethnographic Theory: The reviewer charges me with an insufficient 'rigour' and mastery of the terms of Eurocentric kinship theory and ethnographic-ethnological theory. This reveals the reviewer's unfamiliarity also with the historical work I had already done in 1999-2007. All of these publications had established the political-economic roots of Anglophone theories and terms as they affected people on the ground.⁴⁸ The perspectives and methods deployed in Forgotten Friends were based on this earlier work. All kinship terms in English do not and cannot explain the depth of the historical relationships, such as between resettled captives and various temple-

⁴⁶ See Kar, 2004, 36-7.

⁴⁷ Miles Bronson, compiled, *A Dictionary in Assamese and English*, Nowgong 1867 (reprint, 1983). There is no indication in this text that Bronson knew or read Maithili, or Newari, the language and scripts of which had long been used by courtiers of the seventeenth-century Malla kings of adjacent valleys, many of who were also active in the Brahmaputra valley' for examples of which see Bijitkumar Datta (1980).

 $^{^{48}}$ See above and Chatterjee (1999); Chatterjee and Guha (1999: 165-186); Chatterjee ed. (2007).

estates. Terms need creative reuse. 'Matrilateral' incidentally, was a term used by Sidney Schuler in her study of a similar phenomenon. ⁴⁹ I redeployed it to describe a situation in which a man gained office by being 'partnered' with his mother's brother's wife (*matulani*) and redirecting its inheritance. If such usage has been allowed to other scholars earlier, why does <u>my</u> use deserve to be called a 'trick' (p.3)?

Ramirez attributes attitudes to me that have no basis in Forgotten Friends. For instance, he uses the term 'evil' before 'ethnologizing' (on p.3 of his review) while I have established its place as a systemic part of colonial devolution of government through franchise from the early twentieth century. When I have talked of ethnologizing as a form of rule it is in order to provide the prehistory of the Schedule VI of the Constitution of India (See Conclusion, p. 355), in which a hyper-modern racialized rhetoric of natalism, sets 'tribes' apart from 'Hindu' and 'Muslim' castes and communities. In this, I have only reiterated a historiographical position available in print since 2002.50 'Furthermore, I wish Ramirez had read my discussion of varieties of cosmopolitanism (pp 255-272) attentively. I had represented Mary Winchester, an Eurasian woman, recalling another woman among her so-called 'captors' warmly. In the Conclusion, I had also shown that the present residents of Aizawl, who have named a clinic after a deported missionary Doctor Fraser, also included him as a 'founder' ancestor of their church-community. Both, I argued, had embraced different versions of cosmopolitanism in including people patently unlike themselves in the histories they told of their 'own' pasts, their own communities.'

Granted that *Forgotten Friends*' attempts to remember a past before nation-states can only be improved upon, Ramirez's criticisms misdirect the attention of the reader away from what the book <u>did</u> achieve towards tasks the author did <u>not</u> set out to achieve. The aim of the book was not to 'give' history to modern-day ethnic groups [Adi, Mishing and so on], but to remind the nationalist Indian Bengal and Assamese historians of what they might have forgotten as they allowed erstwhile

⁴⁹ Schuler (1978: 141-152).

⁵⁰ Nag (2002).

friends and partners to become estranged as 'tribals'. So the review's criticisms miss the much larger *historiographic* point the book had sought to establish – that a connected historical-geographical knowledge was *lost* to a previous generation of colonially-sponsored Indian Bengali and Assamese historians (such as Bhuyan, Sircar and others) whose view continued to dominate all historical production till the present.

I can only hope that Ramirez's critique of the book will not dissuade other scholars from learning something from the book's attempts to strive for greater self-knowledge in the arduous struggle that lies ahead of all of us - to write genuinely pluralist pasts, not ethnicised histories retroactively fitted to the land.

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EDITORIAL	3
ARTICLES	
Networks and Practices of Weather and Climate in the West Andrea Butcher	ern Himalaya 5
Ethnobotany, commercialisation and climate change: conse of the exploitation of yarsagumba in Nepal Kamal Adhikari	quences 35
Encountering Climate Change: dialogues of human and non relationships within Tamang moral ecology and climate pol Ben Campbell	
Village gods and goddesses of Kinnaur and their money lend Seema Thakur and R.C. Bhatt	ding system 88
BOOK REVIEWS	101-110
Response to Philippe Ramirez	111
NOTES ON CONTRIBUTORS	130

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