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Special Focus: Buddhism in the Anthropocene

Himalayan Buddhism *as* Human Geological Agency: Rethinking the Novelty of "the Anthropocene"

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This article uses a Himalayan Buddhist lens to critically interrogate a fundamental premise of "the Anthropocene"—that the epoch commemorates a "newfound" capacity of humans to mobilise Earth forces. Rather, Himalayan Buddhism has long held that humans wield geological agency, mobilised through relationships with territorial landscape deities, which inflict severe weather in retaliation for human moral infractions. Offering an alternative model of anthropogenic climate change, Buddhist and Indigenous lifeworlds challenge Western convictions that "the Anthropocene" is a novel planetary epoch. Since the term has gained a vibrant discursive life beyond geology, its cultural assumptions—rather than biophysical thresholds—are primarily evaluated, revealing an extension of Eurocentric colonial logic into this new planetary chapter. Alternatively, I suggest the Himalayan Buddhist term "*kawa nyampa*" (degenerate era) better encapsulates our transition towards environmental breakdown. There was no need to "invent" the Anthropocene as a new epoch of thought—it had long already existed.

Since the term was coined more than twenty years ago, the "Anthropocene" has been offered as an encompassing descriptor—and explainer—for the myriad environmental changes ongoing today. A token of Western recognition that humanity significantly shapes the biophysical world, this epoch is commonly dated to the advent of the Industrial Revolution (P. J. Crutzen 2006). The flagship discourse of "the Anthropocene" is global climatic change: an acknowledgment that human imprints upon the Earth system today span vertically from the geological to the astronomical. This is expected to endure. Based on carbon dioxide emissions alone, climate patterns may depart significantly from "natural" behaviour for at least the next 50,000 years (Loutre and Berger 2000).

To many commentators, human intervention in "the biological fabric of the Earth" seems unprecedented (Steffen, Crutzen, and McNeill 2007: 641). Notwithstanding the materially inscriptive processes of the Anthropocene, wherein human activities are now indelibly scratched into the stratigraphic record, the epoch imagines a new biographical chapter for our species. The twinned stories of humanity and the Earth system appear fundamentally revised, wherein the Natural world, in previous centuries considered beyond our control, becomes not only subject to human agency, but subsumed by it. Perhaps the most powerful contribution of "the Anthropocene" to public life is its creation of a new narrative, with Yusoff (2016: 3) even claiming it has birthed an "*Anthropogenesis*—a new origin story and ontics for mankind".

However, the exact story being (re)written is still unclear. The qualifying parameters of the Anthropocene—its exact start date, its preconditions, and whether the Holocene has conclusively ended—are subject to heated contestation within the physical sciences. Even its nomenclature is up for debate: with Capitalocene, Plantationocene, Chthulucene, among others, all considered by some commentators as better reflecting its conditions of creation (Haraway 2015). Despite the burgeoning literature on the Anthropocene, consensus

is rarely reached. This means that its unprecedented status as a "novel" epoch has perhaps become its sole settled characteristic. Indeed, Chakrabarty speaks of "a unique phase in human history", where, for the "*first time*, *we consciously connect* events that happen on a vast geological scale ... with what we might do in the everyday lives of individuals" (2018: 6, emphasis added).

But is human geological agency really a "new epoch of thought" for our species (Yusoff 2016: 3)? The apparent novelty proclaimed by "the Anthropocene" belies the fact that many cosmologies have long recognised "the capacity of humans to mobilize earth forces" (Yusoff 2016: 8)—particularly Tibetan Buddhism. The earliest surviving Tibetan historiographies detail the ritual and architectural "taming" of *srin mo*, a gigantic supine demoness thought to comprise the entire Tibetan landscape around the seventh century (Gyatso 1987). After the flailing limbs of the landscape-demoness were forcibly "pinned" to the Earth by thirteen strategically placed temples, the troublesome Tibetan topography was effectively subdued. As the linchpin of Tibet's most popular origin myth, this intervention paved the way for the introduction of Buddhism, which offers practitioners tools for the ritual management of the environment. More broadly, by taming the mind with Dharmic practice (*sems 'dul*), the Earth can also be "tamed" (*sa 'dul*) and made amenable to human goals (Aris 1990: 126).

Across millennia, the association between human activity and Earth system processes has persisted. This connection is mediated by localised deities embedded within the landscape, whose discontent is frequently expressed as environmental disturbances. In contemporary Ladakh, Nepal and Sikkim, earthquakes have been linked to disgruntled deities acting in retribution to human misdemeanours (Butcher 2013; Childs et al. 2021; Gergan 2017). These spirits are generally pre-Buddhist in origin, but were absorbed into the Vajrayāna Buddhist pantheon as the religion spread (Baker 2018). They have since existed in a state of semi-subjugation to the Buddhist Dharma, but are constantly at risk of resurging. To maintain fruitful conditions humans must continually appease them with the appropriate rituals. The failure to do so could induce epidemics, social affliction, or severe weather (Huber and Pedersen 1997).

In the case of Himalayan climate change, the need to decentre the "Anthropos" particularly resounds. Here, topography is not an inert functional platform but a lifeworld bristling with gods, deities, ghosts and demons (Torri 2015). If Buddhist precepts or social customs are violated, extreme weather might be inflicted as punishment. Accordingly, the moral and the meteorological are tightly coupled, infused with human intentions. This cosmological frame is termed "the Tibetan moral climate" by Huber and Pedersen (1997), and conceptually predates the scientific identification of an "Anthropocene" and "anthropogenic climate change". For Himalayan Buddhists, the weather can be "natural" or retributive; it is co-produced by the relational interactions of humans with a suite of temperamental deities.

In one of the most extreme permanently inhabited environments in the world (Diemberger 2013), the ongoing maintenance of favourable relationships with spiritual nonhumans is paramount to survival. This labour can take a variety of forms, with one example being the *chos skor* or "scripture circuits" customarily made in Tibetan villages to maintain the fertility of the landscape between the seeding and harvesting periods. By sanctifying the village territory in this way, the local deities are mollified, and a stable climate is believed to prevail (Ramble 1996). More regularly, agricultural production and benign weather are safeguarded with offerings of *bsang* (incense) and a generalised adherence to Buddhist moral laws (Bhutia 2021). These practices should surely qualify when Steffen, Crutzen and McNeill (2007: 619) define the Anthropocene in terms of a humanity that is "a self-conscious, active agent in the operation of its own life support system", and long predate its reputed start date.

For Himalayan Buddhists, then, we have always been in an "Anthropocene", albeit one quite different to the contemporary global disruption that the term arose to quantify. Bubandt (2018: 3) explains that "the concept 'Anthropocene' was born when geologists and climate chemists had to acknowledge that their natural objects of study was [sic] infused by human agency", but the nominated spokespeople for planetary history are latecomers, centuries behind the curve of Buddhist ritual specialists. The invention of a novel term reflects an assumed precedence of Western rationality as the only "legitimate" lens through which the world can be known; the notion that only phenomena "associated with observable material changes" (Amoureux and Reddy 2021: 939) defines a "real" Anthropocene.

This "somewhat hidden Eurocentrism" (Morrison 2018: 3) at the crux of the Anthropocene concept must be challenged. This not only assumes that European structures are the root of all planetary agency, it fails to accommodate the relational ties with nonhuman kin that are central to Indigenous lifeways (Coope 2021). Particularly, gods and demons of the spiritual world are rarely included within literature concerning the "more-than-human". To make space for Indigenous views consistently, therefore, we must de-secularise "the Anthropocene". This resounds with calls for Anthropocene discourse to include Indigenous knowledges (Davis and Todd 2017) but further recognises that, conceptually, the capacity for planetary agency that "the Anthropocene" inaugurates already *is* a lived reality within Himalayan Buddhism. Accordingly, the proclamation of the Anthropocene as a "novel" geological epoch, initiated by the specifically British historical event of the Industrial Revolution, seamlessly overwrites centuries of Himalayan Buddhist reality. As "the Anthropocene" itself has performed an "extension and enactment of the colonial logic [that] systematically erases difference" (Davis and Todd 2017: 769), so too has this act of neologism.

This article critically reflects upon the fundamental premises of "the Anthropocene" narrative, and its discursive life. By claiming the reality of Indigenous lifeways—albeit translated and repackaged as scientific metrics—I argue that most "Anthropocene" discourse continues the very dispossession of Indigenous peoples and their knowledges that it purports to lament. However, I also seek to explore constructive alternatives to this label. The profound global social, cultural, and environmental transformations of recent decades do require a moniker, which ideally communicates both a temporality of change, and a short form explanation. Accordingly, the terms "*kawa sangbo*" (meritorious era) and "*kawa nyampa*" (degenerate era) are offered as vibrant, semantically rich temporal markers used by the Walung-nga community in the north-east Nepali Himalayas in reference to recent decades. These, I argue, (more) effectively summarise both causes and consequences of anthropogenic environmental degradation than "Anthropocene".

Notes on Methodology and Terminology

The empirical basis of this paper stems from six months (November 2021–May 2022) of ethnographic fieldwork with the Walung-nga community: an ethnic group residing in the north-eastern Nepali Himalayas that self-identifies as Indigenous (Wangyal 2009) and are enumerated as one of 125 "Castes and Tribal Groups" within Nepal's 2011 census (ranked 120th/125 by size of population). My fieldwork took place in Walung village (pop. <200), located in Taplejung District, an important historical trade entrepôt on a direct route between Kolkata and Shigatse (Tibet), where I lived with two Walung families, including that of the incumbent village chairman. The close geographical, cultural and social links with Tibet mean many Walung-ngas consider themselves Tibetan, only "the border came between us" (Shrestha 2022). However, caught at the historical confluence of the Sikkimese kingdom to the east, Gorkha state-making from the west, and Limbuwan to the south, Walung has a richly diverse history of cultural exchange that exceeds the Tibetan influence alone. The main spoken language is Walung-ge, which shares 71% lexical similarity with standard Tibetan (Wangyal 2009). My ethnographic observations were supplemented by interviews with

55 Walung-ngas, conducted in either Walung-ge or Nepali with the help of a field assistant, Tseten Tashi, a permanent resident of Walung. As committed practitioners of Nyingma Buddhism, Walung-nga knowledge simultaneously addresses Buddhist and Indigenous concerns.

Although all karmic causality, including the principle of radical interconnectedness (Tib. *rten 'byung*: Sk.: *Pratītyasamutpāda*) fundamentally challenges the agential premise of "the Anthropocene", I draw special attention to Buddhism practiced by Himalayan communities for the presence of territorial landscape deities, which are often [consciously] excluded from Vajrayāna Buddhist practice elsewhere (Eddy 2019). These deities are essential to realising Buddhism as an "emplaced" religion (Smyer Yü 2014), forging a complex intertwinement of the Earth and humans. In addition to Walung-nga Nyingma perspectives of Buddhism, this paper incorporates material from communities across the Himalayas, which may be from various schools of Buddhism. Accordingly, I use "Himalayan Buddhism" as a shorthand to merge Buddhist and Indigenous concerns in discussion, referring specifically to (ethnically and culturally) Tibetan Buddhist communities residing in the Himalayas.

Secondly, whilst the need to incorporate Indigenous concerns into "Anthropocene" discussions is frequently voiced (Davis and Todd 2017), extant literature almost exclusively details perspectives from North American territories occupied by white settler-colonisers. This scholarship has offered much-welcome interventions to decolonise Anthropocene discourse, but care should also be taken to attend to groups beyond these regions. Foregrounding perspectives from South and Inner Asia may help redress this balance. Further secondary research has revealed that similar coalitions between human and nonhuman agencies are formed by many Indigenous groups worldwide—from the Arctic to the Andes (Carey 2010; Cruikshank 2007). The argument against the novelty of "the Anthropocene" therefore resonates with Indigenous worldviews beyond Himalayan Buddhism.

Against "Apocalypse": Disentangling Agency and Crisis in "Anthropocene" Thought

The mid-twentieth century saw the first measurable evidence of human-induced breakdown within climatic, atmospheric, and ecological systems, best typified during what Steffen et al. (2015) call the post-1950s "Great Acceleration". This is viewed by some as the advent of "the Anthropocene", with others citing the Industrial Revolution or the onset of colonial conquest (P. J. Crutzen 2006; Lewis and Maslin 2015). Neutrally framed, "the Anthropocene" is "a time interval marked by rapid but profound and far-reaching change to the Earth's geology, currently driven by various forms of human impact" (Zalasiewicz et al. 2017: 56). But in public discourse, the term has gained most traction as a generalised byword for environmental destruction. In one word, it recalls the toxic chemistry created by industrial processes, plastic pollution, ecosystem simplification, and changes in atmospheric composition. Given the magnitude of harmful changes, and their potential to arrest human progress, "the Anthropocene" is frequently spoken in an Apocalyptic tone, framing Man as the antagonist "destroyer of worlds" (Yusoff 2016: 5).

Unlike the Pleistocene and Holocene, then, the "Anthropocene" has taken on resonance beyond geology. The indelible presence of human traces within the geologic record—particularly radioactive nucleotides—has confirmed that "the Anthropocene" is indeed stratigraphically "real" (Zalasiewicz et al. 2017). However, the search for "geologically visible" markers often overshadows interrogations into the human habits and histories that have left these traces (Morrison 2018), meaning that a unilinear narrative about humanity *as a species* prevails in most causal formulations of the Anthropocene. This is evident in Steffen et al.'s (2015: 80) claim that our addiction to growth as "a core societal value" has pushed us over this geological threshold. The questions of whose values, and whose society, remain unasked and unanswered.

Others have emphasised that this legacy of destruction should not be attributed to a generalised humanity; stratigraphic changes reflect the colonialist domination and extraction of the planet by a ruling, White elite (Mirzoeff 2018). Notwithstanding that one Apocalypse has already happened for the Indigenous and Native people that now inhabit "their ancestors' dystopia" (Whyte 2017), it is increasingly clear that the toxic human footprints belong to a relatively small number of people. Despite this, the "Anthropocene" has been embraced, even praised, in literature as "a truly encompassing concept with even greater semantic reach than a venerable, polysemic word like 'nature' and richer connotations than the now familiar term 'global environmental change' " (Castree 2014: 438). The term has become a "charismatic mega-category" (Reddy 2014), sweeping all competing narratives under its roof (Todd 2015: 246).

The multivalence of "the Anthropocene" speaks and obscures many stories, but within these, I highlight the conflation of narratives of *agency* with narratives of *crisis*. Anthropocene discourse is largely premised on novel recognitions of *agency*—the "newfound" capacity of humans to enact "far-reaching change" on Earth systems (Zalasiewicz et al. 2017: 56). Although, in its colonial expressions, "human agency" has manifested as Apocalypse (Whyte 2017), a just environmental history would recognise that this is not the only form that agency could take. It is important to recognise environmental destruction for what it is: not a naturalized response to the contemporary human condition but a set of choices that have been made by, and that benefit, the most powerful actors in society (Mirzoeff 2018). By tethering a universalised framing of human agency with how our planetary crises have emerged, we produce a political and psychological anaesthesia that stultifies corrective action (Chakrabarty 2018). In practice, this has meant that "we can think with and deploy 'Anthropocene' without rethinking any of the fundamental assumptions that got us into the crisis it names" (Hartigan 2014).

Our way forward is to separate narratives of agency with those of crisis, refuting the assumption that human impacts on Earth are by definition deleterious. They need not be, as is the case in Himalayan Buddhism. Arguing against the naming of an "Anthropocene" is not to deny the reality or significance of the geological markers that humanity has inscribed since industrialisation. Nor does it endorse the techno-optimistic responses which claim that only by deepening human control over the environment, including through climate geo-engineering, can we forestall further damage (Barry, Mol, and Zito 2013). Instead, I advocate for the recognition that humans do wield geological agency, but that many societies and cultures have wielded it lightly. Moreover, accepting hegemonic accounts "where humans are said to be forceful agents acting upon a passive world" (Bubandt 2018: 4) would be an error. Many other voices within the Himalayan landscape demand to be heard.

Misplacing and Displacing Human Agency

In an early definition, Crutzen and Stoermer (2021: 17) claimed the Anthropocene registers "the central role of mankind in geology and ecology", which has been decried by Indigenous voices for negating the significance of relationships with nonhuman kin and spiritual forces. Assuming that components of the terrestrial biosphere cannot, in themselves, comprise a thinking and agential actor contradicts thousands of years of Indigenous philosophies (Davis and Todd 2017). In the case of Himalayan Buddhism, these terrestrial agents are most often landscape deities, an ontological category which is dismissed in mainstream scientific discourse. These trends in scholarship have provoked Indigenous voices to argue that the Anthropocene debate, like settler colonialism, has further severed relationships between humans and the plants, soil and animals that make up our terrestrial home, and a spiritual lifeworld (Whyte 2017).

For Himalayan Buddhists, the exclusion of nonhuman actors also mischaracterises the nature of *human* agency within the environment. The "human exceptionalism" that Yusoff (2016: 17) identifies as problematic within

"Anthropocene" constructions does not present an inherent conflict with Himalayan Buddhism, since humans are hierarchically positioned above animals and lesser beings. This even partially extends to the spirit world: whilst powerful Enlightened deities (*'jig rten las 'das pa'i srung ma*) are positioned above humans (Nebesky-Wojkowitz 1975) the hierarchical order is blurred when it comes to local spirits, often known as *yul lha* (gods of the local area). In Walung, many claimed that their *yul lha*—namely, *btsan* and *rgyal po*—are no more powerful than humans: "In fact, we might be little more powerful than them," suggested one monk. "Religiously, we are ranked slightly above them, so we make offerings to them only as a mark of respect." Although these deities have some capacities that humans do not have, they also lack a physical form, which curtails their perceived power. Whilst Himalayan Buddhism sometimes recognises human agency as a principal force, it is rarely considered the only force.

Furthermore, humanity is not an "undifferentiated whole" (Moore 2016: 81) here; individuals wield vastly different capacities. This does not just apply between Buddhists and non-Buddhists, certain Buddhists have more environmental influence than others: for instance, in Dolpo, the *ser ba bkag mkhan* (preventer of hail) has an "exclusive" line of communication with the *yul lha* in the context of weather rituals (Schicklgruber 1996). More generally, monks are endowed with spiritual-environmental capacities that lay practitioners are not (see Mills 1997). There are even differences at the familial level. A 62-year-old Walung-nga described how, during a blizzard that almost killed her entire herd, she made offerings to appease the *btsan, rgyal po*, and *klu*. Shortly after, the snowfall stopped, and her yaks survived. "My husband doesn't know these rituals, so it had to be me," she said proudly. "I'm not educated, I know nothing, I'm just a herder. But I could do this for my animals, and that gave me satisfaction."

However, like other forms of traditional knowledge in Himalayan and Indigenous communities, these agential capacities are disappearing as part of the broader logic of loss and erasure that the scientific "Anthropocene" hails. In Walung, there is widespread concern about the survival of ritual practice in the context of modernisation and migrating youth. Just across the border, within Sikkimese Lepcha cosmologies, it is believed that younger *bungthings* (shamanic Lepcha ritual specialists) no longer possess the knowledge and power of older specialists. If unable to perform the correct rituals of safety and protection, people fear that earthquakes or other disasters may recur (Gergan 2017). This turns Steffen et al.'s (2011: 757) declaration that: "[w]e are the first generation with widespread knowledge of how our activities influence the Earth System, and thus the first generation with the power and the responsibility to change our relationship with the planet" on its head. In the Himalayas, there are fears that we are witnessing the *last* generation that might hold this power. After generations of uninterrupted transmission, its survival has been jeopardised only now—the arrival of what has been called "the Anthropocene".

Tolia-Kelly (2016: 789) suggests that the era has been a major frontier for "culturecide ... the eradication of cultures [which] represent possibilities of alternative ways of living, philosophies, and politics". Firstly, "the Anthropocene" is diminishing the agential capacities of Himalayan communities. Industrial effluent and hydropower diversions constrain ecosystem regeneration, in the same moment as migration and modernity erode the ritual "tools of power" habitually used to manage the environment. In the process, this erosion actualises the narrative that only European industrial processes can exert significant influence on the environment, since alternative ritual pathways disappear or lose efficacy. I further argue that the neologism itself represents a culturecide. In some respects, the discursive invention of "the Anthropocene" has been performative, creating the world that it narrates. It at once elides Indigenous and Himalayan Buddhist realities that predate it, and with the word, declares that they are dying. "The Anthropocene" narrative does not just *symbolise* the dispossession of Indigenous groups, it furthers it—denying the salience of their histories, just as anthropogenic degradation forecloses future revivals.

Others, for instance, Davis and Todd (2017) have also argued that "the Anthropocene" is not a discrete event; it can be viewed as a continuation of the legacies of genocide and dispossession instigated by colonialism. These scholars, following Lewis and Maslin (2015), date the dawn of the Anthropocene to the onset of colonisation of the Americas by Europeans, visible in the geological record as the sharp drop in atmospheric CO2 that accompanied colonial genocide. As the indigenous population shrank tenfold by 1650 via exposure to European diseases, war, enslavement and famine, 50 million hectares of forest regenerated in their absence (Lewis and Maslin 2015). Though this is effective to demonstrate the violence at the core of the concept, and the historical and ideological links between the Anthropocene and colonialism, this thesis still positions Europeans as the Prime Movers of planetary history. I am torn between deep sympathy with the gravity of this argument, and a consciousness of the need to "resist imagining European history as simply history itself" (Morrison 2018: 7).

Do Climates Change, or People Change? A Himalayan Buddhist Account of Meteorological Rupture

Given that climate change is considered "the most salient and perilous transgression of Holocene parameters" (Malm and Hornborg 2014: 63), this manifestation of the scientific "Anthropocene" has been selected as a flagship example to demonstrate my case. Because climate change occurs more rapidly in high-altitude regions, the Himalayas have endured an accelerated trajectory of climatic and ecological disruption (Kohler and Maselli 2009; Krishnan et al. 2019). In addition to two enormous Glacial Lake Outburst Floods (GLOFs) in 1963 and 1968, Walung residents have witnessed retreating snowlines, dramatically reduced snowfall, and declining grassland quality, alongside intensified summer rains. However, as in many remote communities of the Himalayas, climate change reception—namely, the uptake of scientific climate knowledge through formal channels such as education and the media (Rudiak-Gould 2014)—remains low. Walung is not yet connected by road; a substantial demographic had not received secondary education outside the village, and although televisions have recently arrived, internet connectivity is restricted to a slow and unreliable 2G signal. Accordingly, when asked why the climate had changed, explanations flourished beyond the confines of Western science.

Despite their small contributions to global carbon emissions, Walung-ngas held that all humans have agency over weather. This section turns to an overview of Himalayan Buddhist environmental knowledges, paying particular attention to how meteorological agency is mobilised by humans in a way that refutes the novelty of "Anthropocene" thought. Examples are drawn from Walung-nga perspectives and from secondary research spanning the Tibetan cultural sphere. Loosely, I categorise three nested spatial registers at which humanity can influence meteorological processes: the local, the translocal, to broader "universal" discourses of moral deterioration.

In many iterations of Himalayan Buddhism, the weather is partially controlled by a pantheon of non-human deities residing in landscape features: some benevolent, some malevolent (Huber and Pedersen 1997). This is shared across many regional cosmologies, including Tibetan Buddhism, Bön, and *mi chos* (folk religions), alongside several so-called "little cultures" of the Himalayas: Lepcha, Tamang, Sherpa, and Walung-nga, to name a few, which have historically been neglected in favour of the "Great Traditions" of Hinduism and Buddhism (Shneiderman 2010).

This association between deities and the weather has been longstanding; Huber and Pedersen (1997) describe how traditional (pre-1950s) Tibetan society united the meteorological and spiritual worlds. The authors' term, "the Tibetan moral climate", reflects perceptions that the environment provides a partial mirror of a human community's moral character. The intermediaries in this process are landscape deities, which shape environmental conditions according to their whims. *Lha* can induce earthquakes, floods, and extreme

events (Butcher 2013); the capricious *klu* influence precipitation, and the moods of thunder-dragons (*'brug*) determine storms (Salick, Byg, and Bauer 2013).

Each spiritual being has a temperament. Some particularly erratic deities might create climate chaos unprompted. Other times they retaliate in response to sinful human behaviour, which can be loosely categorised into two genres: (1) flouting Buddhist religious orthodoxy—for instance, harming sentient beings by hunting and fishing—and (2) foreign influence which is considered morally unacceptable to *chos skyong* (protectors of the Buddhist doctrine). The latter reflects an enduring belief that foreigners of "other worlds" spread moral contamination. For instance, the 1725 Lhasa floods were blamed on the presence of Capuchin missionaries (Bell 1996). In Walung, as in many Himalayan communities, many believe that outsiders entering the valley can cause the weather to change. Moreover, although the disposal of plastic waste through burning is practiced by locals and trekkers alike, tourists are considered responsible for the long-term recession of snowlines. "The smell of smoke and burning plastic has polluted the deities. If tourists didn't burn their rubbish, the mountains you see around us would be white with snow," one Walung-nga claimed.

Connections between climate and morality are not unique to the Himalayas: spiritual meteorological retribution has precedents worldwide, from the Judeo-Christian story of Noah's Flood (Fair 2018), to beliefs held by the Quechua in the Peruvian Andes (Allison 2015). Through the "Tibetan moral climate", an alternative model of anthropogenic climate change is offered, far removed from technocratic vocabularies of greenhouse gas emissions, degrees of warming, and carbon parts per million (PPM). Rather than an abstract statistical description, "climate" takes on an invigorated, personal immediacy for Himalayan Buddhists. If Buddhist law or local social customs are violated, meteorological "retaliations are just behind the corner… sure rewards for eventual trespassers and offenders" (Torri 2015: 259).

Moreover, certain environmental prohibitions are common to many Himalayan Buddhist cultures. Practitioners must refrain from cutting trees, avoid polluting water sources, and leave sacred forests undisturbed to support the maintenance of an amenable climate. For instance, Bhutan has a vast network of forested *pho brang* (deity citadels) that are largely off-limits to human incursion because the deities are sensitive to *drib* (Tib: *sgrib*), a form of spiritual pollution (Allison 2017). It is widely believed that villagers cannot remove anything from deity citadels without experiencing retaliatory consequences. This has produced a significant, measurable impact on people's subsistence behaviours, and *pho brang* have become ecological refugia for endangered species, and reservoirs of old-growth forest (Allison 2004). One study in Trashigang, Bhutan, revealed that 100% of respondents reported that "they would never destroy a [*pho brang*]" by removing tree materials (Wangchuk 1998: 20:84). These beliefs have been cited by the Royal Government of Bhutan as a key reason why the country has maintained 71% forest cover despite its high fuelwood dependency (Allison 2017; Mahagaonkar et al. 2017; NEC 1998). Similarly, the collection of forest materials from Walung's eastern hillside—particularly in the surroundings of the monastery—is prohibited. The trees are recognised both as the property of the "*ṭhūlo*" (Nepali: big, powerful) deities, and for their ecosystem service of landslide prevention.

Offending and propitiating the local *yul lha* can only cause local consequences; as Mills, Huber, and Pedersen (1998) explain, most local deities can only influence the weather on a "line-of-sight" or "line-of-sound" basis relative to their surroundings. However, the Walung-nga distinction between "*ṭhūlo*" deities and their local *yul lha* brings greater scalar impacts to the fore. When Vajrayāna Buddhism spread through the Himalayas, the ritual process of subjugation bound the pre-Buddhist deities of place to karmic law (*'rten brel*), and the endless, unsatisfactory cyclical existence of *Samsāra* (Tib: *khor ba*). This ontological transformation also betrayed a moral statement: positioning indigenous deities as morally and cosmologically inferior to the higher classes

of Enlightened deities—namely, those liberated from *Samsāra* (Allison 2019; Nebesky-Wojkowitz 1975). In Walung, as elsewhere in the Himalaya, the old pantheon of pre-Buddhist deities still resides in the landscape (as *btsan, rgyal po* or *klu*), requiring constant appeasement and placation by humans, but they co-exist with a newer, and more "*ṭhūlo*", Enlightened Buddhist cosmos (Salick, Byg, and Bauer 2013).

As Buddhism has been formalised across the Himalayas, the locus of spiritual power has been displaced from the local to the translocal, since higher Buddhist deities exist on a different spatial plane to lower autochthons. The former offer a "globalising vision of vastness ... alternative universes ... [and] repeatable space" (Salick, Byg, and Bauer 2013: 5) and their influence extends as such; the latter are "entities whose power exists over a specific domain of geographical space" (Mills 1997: 31). Deities that are closer to the status of "Enlightened" beings are thought to have a larger scope of divine and ritual power. When Walung-ngas perform the "*Phutuk*" festival in November[1]—a ritual to harness divine power and protection that appeals directly to these so-called "*ṭhūlo*" deities—it is thought that "even the nomads in Tibet" can feel its impact (Saxer 2023: 31). Indeed, Walung's head lama reiterated that *Phutuk* casts a protective influence over "the whole world", far beyond the village. As humans engage with spiritual entities higher up the cosmological hierarchy, impacts that match the global scale of the "Anthropocene" are more readily accounted for within Himalayan Buddhist causalities.

Finally, an alternative pathway for influencing climate dynamics exists independently from spiritual entities, and entirely transcends their spatial remits. The understanding of the Tibetan meteorological world as a "moral space of qualitative interconnectedness" (Huber and Pedersen 1997: 590) ties closely with Buddhist soteriological principles. The authoritative monastic discourse of moral retribution is the Buddhist principle of karma: the universal law of cause and effect that arises from the intentions and actions of all sentient beings (Butcher 2013). It is believed that harmful intentions and actions accumulate karmic demerit, which may reap consequences for the individual in this lifetime, or a future reincarnation. Demerit can accumulate collectively, reflecting the moral status of an entire society.

This mechanism allows for negative meteorological outcomes to materialise even if no specific deity is offended. After disastrous flooding struck Ladakh in 2010, both the Fourteenth Dalai Lama and the Twelfth Drukchen Rinpoche interpreted the disaster as a manifestation of the karmic consequences of earlier transgressions. The flood was believed to have dispelled this karma, and Ladakhis were encouraged to build better lives thereafter (Butcher 2013). A 75-year-old Walung-nga remembering the GLOFs of his childhood drew on similar logic: "The flood came as the answer to all the bad things that were happening at the time—the invasion of Tibet, the trade in religious artefacts for profit. But it washed those bad things away. Even if those practices had continued, a disaster would not have happened twice."

If the merit of an era declines over a sustained period, a "phase shift" might be initiated on a global—or even universal—scale, signalling the end of the cosmic age, termed a *kalpa* (*bskal-pa*). This brings with it all the omens portended by the arrival of the "bad times", including disrupted weather. The initial manifestations of climate change in Walung were associated with the beginnings of such phase shift. This is what *kawa nyampa* represents to Walung-ngas.

From Mass Extinction to Buddhist Annihilation: *Kawa Nyampa* in Buddhist Prophetic thought

One scientific metric of "the Anthropocene" is the inception and acceleration of the Sixth Great Mass Extinction. However, Buddhism in the "Anthropocene" has witnessed this biological extinction happen concurrently with its own perceived demise. Inbuilt into Buddhist eschatology is the notion that "at

[1] Walung's annual *Phutuk* festival is performed in the name of Dorje Shönnu (Tib: *rdo rje gzhon nu*), a wrathful heruka yidam deity who embodies the Enlightened activity of all the Buddhas. Due to spatial constraints, it cannot be discussed at length in this article; it is briefly described in Saxer (2023: 30–31).

an uncertain point in the future, the Buddhist religion will come to an end" (Nattier 1991: 1:2). In the contemporary era, these timelines—of Mass Extinction and Buddhist annihilation—have started to converge, according to Walung-nga conceptions of *kawa nyampa*, with both beginning around the time of Steffen et al.'s (2015) "Great Acceleration": the post 1950s.

One of the most enduring and perplexing prophecies of the Buddhist faith foretells the decline of the Dharma. The 2nd century Kauśāmbī prophecy declares that, not only will the transmission of Buddhist teachings decrease, but the religion itself will be annihilated (Nattier 1991). No doubt, the annexation of Tibet, particularly the horrors of the Cultural Revolution, marked a watershed moment in the suppression of [Tibetan] Buddhist teachings. Before this, the Stalinist purges in Mongolia wreaked similar destruction. Encroaching waves of modernity—even in ethnically Tibetan regions that have escaped direct occupation, such as Walung—have opened new frontiers of attrition. These changes have overlapped with a moment wherein climate change and ecological degradation are beginning to manifest during the so-called "Anthropocene". Incidentally or coincidentally, these events bear points of convergence with canonical Buddhist narratives of decline.

In this section, I draw parallels between present-day signs of Buddhist decline—termed *kawa nyampa* in Walung-ge—and the conditions associated with the rise of the scientific "Anthropocene". I consider if the Himalayan Buddhist moralised division between the past as *kawa sangbo* and the present/future as *kawa nyampa* offers a (more) productive narration of environmental destruction than the term "Anthropocene" has provided, arguing that it captures the locus and directionality of human agency more effectively than "Anthropocene". It furthermore escapes the Eurocentric marker of the Industrial Revolution as the referent for a new epoch of humanity, whilst still providing a plausible account of the causes and consequences of environmental change.

In Buddhist cosmological thought, time is divided into aeons, called *kalpa* (*bskal-pa*). The wheel of time is a circular construction, and each *kalpa* contains a period of formation, development, maturation and decay, before giving rise to the next *kalpa* (Childs et al. 2021). The early phase of a *kalpa* is marked by abundance, comfort, and longevity. The material and spiritual conditions of the age are highly auspicious. These periods may also be moralised, with earlier stages of the cycle being associated with more virtuous, compassionate and enlightened human behaviour. However, as the cycle progresses, chaos, conflict and selfishness arise. The practice of the Buddhist Dharma declines, and in the final stages, protector deities depart elsewhere, and monks turn to secular pursuits (Nattier 1991). In the prophecies of Guru Rinpoche, the revered "Second Buddha" of the Himalayas, and head of the Nyingma lineage that is practised in Walung, climate calamity is a further manifestation of this cyclical decline:

> The merit of beings will be greatly diminished... Conflict in the land will disturb the gods and spirits (*lha srin*). Disturbed gods and spirits will agitate the elemental spirits (*'byung po*), causing more conflict [...] freakish flood waters will arise. (Guru Rinpoche, quoted in Akester 2001: 16–17)

> When it is time to harvest [the crops] will not be ripe. Much rain will fall in the upper and lower parts of the valley. Earthquakes will strike again and again. The glacial waters of Tise (Mt. Kailash) will be spoiled. (From *Padma tshal gnas yig*: 7r, quoted in Childs et al. 2021: 38)

Given the acceleration of climate chaos in the Himalayas relative to lower altitudes (Kohler and Maselli 2009), the so-called Age of Degeneration (Tib: *rtsod ldan gyi dus*, Sk: *Kaliyuga*) is becoming more frequently cited with the incidence of natural disasters in the Tibetan and Himalayan region (Diemberger 2013). One study of the aftermath of the 2015 earthquake in Nepal revealed how many Himalayan Buddhists linked the earthquakes to similar visions of degenerating times as narrated in prophecy literature (Childs et al. 2021). The event was

interpreted as a direct signal of the end of the *kalpa*, and a sign that a degenerate time (*dus nyams*) is arising. Although conceptions of time as cyclical hint at an inevitability of progression through the *kalpas*, respondents also drew on human actions in the environment: mass consumption of firewood, road construction, the disturbance of the earth with bulldozers, and the collection of stones, as proximate causes of the descent into degeneration and disaster (Childs et al. 2021). The descent was also highly moralised, with the disaster linked to communities' declining compassion and reverence for Buddhist teachings.

Moralised expressions of human agency, then—which includes direct interference with the environment—are believed to accelerate the progression towards a degenerate time, where both the external environment and the inner moral universe concomitantly decay. This was the case in Walung, where the early signs of climatic breakdown were subject to such explanations. The terms *"kawa sangbo"* and *"kawa nyampa"* (spelled phonetically) were used to account for climatic differences between the present and past, brought on by the decline of moral values in human society. I have understood *kawa* as a Walung-ge variant of the Tibetan term *bskal-pa*, since translations of *kawa* were given as "time, age, or generation". The term *kawa nyampa* was used interchangeably with *dus nyams pa*, meaning "degenerate time". Some also used the Nepali terms "*samaya chhaina*" ("no time") or "*samaya kharab*" ("bad time") to similar effect. The Tibetan qualifiers "good" (*bzang po*) and "degenerated" (*nyams pa*) were consistent with their applications in Walung-ge.

It is important to clarify that, despite the longevity of this prophecy in the Buddhist canon, and the significance of Guru Rinpoche to the Nyingma lineage, most Walung-ngas were unaware of this prophetic literature. Nonetheless, when asked how the village had changed over the years, 53-year-old herder Yangkyi framed differences predominantly in terms of a degenerating *kawa*:

> In the past, we were in *kawa sangbo*. This was a time when everything was good. The grass was nutritious, the yaks were large, and the behaviour of men was good. Now everything has changed; the grass has lost its nutrition, the size of the yaks has decreased and the behaviour of men is bad [...] and all the snow has melted. It is said that when the bad times are coming, all the snow will melt. Now, that has happened. The time has changed, and we are in *kawa nyampa*.

A similar account was given by 58-year-old Yangchen:

> The climate has changed because the time has changed (*dus nyams*), and the time has changed because mankind has changed. All the good men are dead, and the inner heart of [mankind] has become evil. There is so much jealousy and competitiveness. This accumulation of bad fortune means that there is much more rain than before, and snow no longer covers the high mountains. The deities are angry, and it signifies *kawa nyampa*.

As Diemberger (2013) finds across the Tibetan cultural region, snow-mountains are highly symbolic places, used to make statements about the wellbeing and future of human communities. References to *kawa nyampa* and spiritual degeneracy in Walung were almost invariably wedded to changes in snowfall. For instance, when asked to define *kawa nyampa*, 26-year-old Namgyal simply stated: "In the past, it was *kawa sangbo*, and the mountains around us were white with snow. Now, we are in *kawa nyampa*, and all you can see is rock." Reductions in snow cover were frequently used as a barometer for cosmic degeneracy. One oft-repeated local adage was "however much the snowline retreats, by that much the time declines". As mountain snow is an indicator of the stability of the social and moral universe here (Diemberger 2013), its recession, under conditions named as "the Anthropocene", indicates that the knowable world is slipping away, and that catastrophe looms.

Just as the current era has seen the Earth's social, economic and cultural fabric alter in unprecedented ways, the shift from *kawa sangbo* to *kawa nyampa* has resonance for Walung-ngas beyond unilateral concern for the environment. However, unlike "the Anthropocene", this narrative of crisis engages deeply with a spectrum of anthropogenic changes (social, moral, spiritual, economic, and environmental) as both cause and consequences of decline. For Walung-ngas, *kawa nyampa* was a shorthand to mourn a breakdown in community relations, the loss of traditional culture, a declining work ethic, the decreasing value of money (inflation), dietary changes, and a general uptick in selfishness and greed, in addition to environmental change. Though principally referring to Walung, global-scale concerns, including new diseases (COVID-19) and international warfare, were also cited as consequences of decline.

Like Byg and Salick (2009) found in their study of perceptions of climate change in Yunnan Province, the conflation of cause and consequence was common by Walung-ngas when explaining the origins of *kawa nyampa*. Despite this, one clear consequence recurred. After narrating the vast history of change in Walung —encompassing everything from the dietary transition from labour-intensive local foods to Chinese imports; to the erosion of traditional religious and cultural practices—67-year-old Pasang concluded that the core of *kawa nyampa* is loss. "In the past, we had all those things, and it was called *kawa sangbo*. Now, they have been lost, and we call this *kawa nyampa*."

Kawa nyampa is a multivalent term that, in some respects, has become its own "charismatic mega-category" (Reddy 2014) for its specific cultural context. However, *kawa nyampa* succeeds where "the Anthropocene" narrative generally fails, by appreciating that environmental change is not *simply* anthropogenic, but sociogenic: "it has arisen as a result of temporally fluid social relations as they materialise through the rest of nature" (Malm and Hornborg 2014: 66). Unlike in much discussion of the "Anthropocene", the era's social and moral antecedents are made transparent in *kawa nyampa*. Humanity has undoubtedly caused these changes, but for Walung-ngas a particular *kind* of humanity is responsible—a degeneration of our natures that causes the environment to suffer. Sometimes, this moral degeneracy encompasses direct acts of environmental destruction. But it also reflects the proliferation of selfishness and greed that have allowed profligate consumption to proceed unabated. In both scientific and Buddhist epistemologies, this underlies the advent of the so-called "Anthropocene". A learned Walung *sngags pa* or yogin summarised:

> The whole of humanity has become aggressive, competitive, selfish and greedy. Look around you today, you can see that rivers have been diverted. There has been mining everywhere, the drilling of rocks, and cutting of trees. The bad karma created by these activities has caused the fortune of the universe to decline, which in turn has caused the energy of the water, grass and trees to decline. The crops have decreased in yield [...] even uncultivated medicinal herbs have declined in nutritional quality. [If this continues], there will be a change in all natural things: wind, fire, earth—the whole climate.

Such visions of vast moral deterioration recur in the earliest Buddhist texts. The *Aṅguttara Nikāy*a declares that when "lust, greed and the wrong values grip the heart of humanity, [and] immortality becomes widespread in society, timely rain does not fall, and crops fall victim to pests and diseases" [AN. I, 147] (quoted in Thendup 2019: 264). Similar narrations of universal decline also appear in the *Cakkavatti Sīhanāda Sutta* and the *Aggañña Sutta* (Nattier 2007). Within these accounts, it is only when humanity has reached very nadir of this degenerative arc do "a few living beings begin to ask whether they might have brought this destruction upon themselves" (Nattier 2007: 153). In the past decades, evidenced by the Anthropocene Working Group's (AWG) identification of an "Anthropocene" (Zalasiewicz et al. 2017), or the Walung-nga declaration of "*kawa nyampa*", it seems we may have reached this nadir—and that humanity must urgently work towards karmic and ecological reconciliation.

Conclusions

When faced against the meteoric popularity of "the Anthropocene", what could be gained by instead turning to Himalayan Buddhist frames of reference, such as *kawa nyampa*, to make sense of our crisis? One obvious point of contention is the specific cultural and religious context assigned to this term, bound as it is to interpretations of Buddhist law and even uniquely Walung-nga customs. Arguably, claims of cultural specificity still apply to "Anthropocene" discourse, with its clear attachment to European history and politics prompting Baviskar (2015) to suggest the moniker "Anglocene". Nonetheless, I suggest that the specific contingencies of *kawa nyampa* may be an asset when counterpoised against the somewhat antiseptic "Anthropocene".

Turning to the Greek etymology of "the Anthropocene", derived from "*Anthropos*" and "*kainos*" to mean "the time of the new man" (Boes and Marshall 2014: 62), it is clear that this portmanteau is a poor descriptor for contemporary ecological degradation and its causal conditions. Simply acknowledging that human agency can alter the environment—which is not a novel realisation, given its integrity to Himalayan Buddhist lifeways—imparts little information about the *nature* of this "time of the new man". The term "Anthropocene" offers context neither on the directionality of human agency—namely, whether its expression is positive or negative—nor its moral salience. These are two factors which have helped facilitate "mystification and political paralysis" (Malm and Hornborg 2014: 67) when it comes to taking corrective action.

Moreover, because it is so commonly conflated with crisis, what "the Anthropocene" typically conveys in practice is not simply the *existence* of human geological agency, but its rampant and inequitable misuse, culminating in our forthcoming status as "the destroyer of Worlds" (Yusoff 2016: 5). Not only must we distance this from Himalayan Buddhist and Indigenous ways of being in the world, which have traditionally left much lighter footprints, but we should acknowledge that human agency can be deployed to positive or negative ends, as *kawa sangbo* and *kawa nyampa* testify to. Interestingly, this facet existed in early "Anthropocene" discussion, but has since been lost; with Crutzen (2002: 23) concluding "Geology of Mankind" with a call for "scientists and engineers to guide society towards environmentally sustainable management during the era of the Anthropocene [... requiring] appropriate human behaviour at all scales".

I have not presented the case of Himalayan Buddhism to advocate for a wholesale replacement of "the Anthropocene" with *kawa nyampa*. Rather, this example has been deployed because it draws attention to the manifold failures of "the Anthropocene" to offer *any* descriptive value concerning anthropogenic environmental crises. Though lauded as a "truly encompassing concept" (Castree 2014: 438), the Anthropocene adds startlingly little [new] information to any dialogue. If its principal claim is that the mark of human agency is a prerequisite for a "novel" geological era, I have definitively argued that this is not the case. If it is to present a universal narrative of the human species as stratigraphic "world-writers", this represents a significant injustice to those who have not partaken in extractive capitalism. It also fails to communicate the highly specific cultural, economic and political precedents that are the epoch's primary architects (Moore 2016).

Some argue that the Anthropocene's principal value is its "shock value", and its presumed capacity to mobilise environmental activism on this basis. To this, I second Morrison's (2018: 3) assertion, restating that it is impossibly "naïve" to expect a singular term to do the heavy lifting of galvanising action against socioeconomic forces that are deeply entrenched. We should not attempt to neologise our way out of a crisis that, at this stage, requires decisive action as opposed to novel speech acts. Other commentators (Instone and Taylor 2016; Last 2017; Sayre 2012), moreover, suggest that the "Anthropocene" label does active harm in reifying the nature/culture dualism that gave this crisis wings.

Drawing on such obviously moralised categories as *kawa nyampa* and *kawa sangbo* will always encounter the criticism that morality is far from universally consistent across religions, or even individuals. But I highlight that the "Anthropocene" discourse echoes many of the problems that Mike Hulme (2017) identifies with existing calls for climate mitigation. Like the products of the Intergovernmental Panel on Climate Change (IPCC), the scientific Anthropocene invokes "thin" global values as its primary source of authority, meaning it utilises criteria that may be widely acknowledged intellectually, but which are rootless and culturally non-specific (Wolf and Moser 2011). Conversely, the deeply resonant "*kawa nyampa*" has created a [misplaced] burden of responsibility for climate change in Walung that "the Anthropocene" rarely catalyses in Western publics. As the Alliance of Religions and Conservation (quoted in Hulme 2017: 15) observes:

> The emphasis on consumption, economics and policy usually fails to engage people at any deep level because it does not address the narrative, the mythological, the metaphorical or the existence of memories of past disasters [...] without them, policies will have very few real roots.

The potent sentiments mobilised by religion and morality, then, may be exactly what is needed when the outputs of climate and biodiversity summits have consistently failed to achieve sustained momentum. Sorondo and Ramanathan (2016: 747) declare that a "moral revolution" is required to address the scale of the crisis we face. As a powerful rhetorical counterweight to "thin" values, Hulme (2017) argues that the solution lies in "thick" moral reasoning—and that religions might offer the richest repositories of moral thought available to us.

Ultimately, the key aim of this paper has been to generate a case to "de-invent" the Anthropocene. This is intended both as a form of epistemic justice to the Buddhist and Indigenous realities that the discourse has erased, but also to highlight that well-meaning intentions for "the Anthropocene" to enact transformative changes to environmental science and public sentiment have not succeeded. In the end, the concept of "the Anthropocene" is unnecessary, and "hides a disturbing extension of colonial discourse into the postcolonial world" (Morrison 2018: 3). Instead, as a starting point, the global religion of Buddhism provides an ideal forum to pilot a "de-invention" of the framework. In the process, environmental history can be further decolonised, de-centred and de-secularised—a small step towards realising a more just and equitable future.

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