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Collective responsibility and environmental caretaking: toward an ecological care ethic with evidence from Bhutan

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ABSTRACT. Attention to environmental caretaking practices of Indigenous, traditional, and rural societies is an important strategy for Indigenous sovereignty and self-determination, as well as for greater ecological sustainability and resilience. Rural practices of caring for the eco-social commons in Himalayan Bhutan demonstrate an implicit care ethic. Mahayana Buddhism and indigenous animism blend to create distinctive attitudes and practices of environmental caretaking displayed in rural relationships with forests, mountains, and water bodies that influence community-based natural resource management. Elements of an eco-social care ethic became even more vivid in the nation's response to the Covid-19 pandemic. Bhutan's response was among the world's most successful, forestalling any deaths at all for the first nine months of the pandemic and limiting deaths to nine total as the pandemic entered its third year in March 2022. Bhutanese Buddhist values and practices parallel the care ethics articulated by Western moral theorists, providing a contemporary example of caring for the common good and alternative pathways toward flourishing futures.

Key Words: *Bhutan; care ethic; community-based natural resource management; Covid-19 pandemic; cultural resources; Himalayas; intangible resources; spiritual ecology; traditional ecological knowledge*

INTRODUCTION

The current Covid-19 pandemic, when so many of the systems of the global order have been found to be lacking, is an ideal time for re-thinking social priorities and values (Walker et al. 2020). An important axis of this shift is a recognition and re-incorporation into public discourse and policy values that have long been excluded for reasons of sexism and racism, including values of care and care work. For the past several decades, care theorists have called for the elevation of care ethics and care work out of the private realm, associated with women as caregivers, and into the public sphere (Tronto 1993, Hirschmann 2018). Care ethicists have emphasized the intertwining of the political and the moral, such that care ethics takes its place alongside Kantianism, virtues ethics, and other political theories (Fisher and Tronto 1990, Tronto 1993, Robinson 1997, Engster 2018).

The Covid-19 (hereafter, C-19) pandemic has underscored the degree to which care work is associated with essentialized constructs of gender and race, and has also begun to break care work away from these shackles. Care has been thrust onto center stage as C-19 patients require caring attention from healthcare workers; parents juggle caring for their children while pursuing their paid work; and elderly, chronically ill, and disabled people have had their access to healthcare upended by overwhelmed hospitals. The centrality of issues of care during the pandemic creates a prime opportunity for examining care ethics in the eco-social commons and separating care from its gendered foundations.

Likewise, Indigenous^[1] studies scholars have identified a care ethic embedded within Indigenous cultures that prioritize relationships between and among humans and other living beings. The incorporation of nonhuman beings into the ethical realm suggests that care ethics may be an important component of environmental ethics (Warren 2000). Attention to Indigenous care ethics opens the possibility of learning from nondominant groups to elevate values of connection, interdependence, collectivity, and situational problem solving, an approach that contrasts with hegemonic Western emphases on universalizable, objective,

context-independent approaches to value (cf. Cajete 2000, Kimmerer 2013, Whyte and Cuomo 2016, Nelson and Shilling 2018, Beamer et al. 2023).

To demonstrate how this new awareness of the importance of care might contribute to and be expressed in environmental caretaking, and to specify some values and practices of an ecological care ethic, I describe practices of caring for the eco-social commons through two brief case studies from Himalayan Bhutan. Distinctive attitudes and practices of environmental caretaking are evident in rural relationships with forests, mountains, and waterways, shaping community-based natural resource management. Elements of a care ethic became even more vivid in the nation's response to the C-19 pandemic, itself an eco-social phenomenon, the expression of which is contingent on environmental and social conditions. Bhutan's response was among the world's most successful, forestalling any deaths at all for the first nine months of the pandemic, and limiting deaths to nine total as the pandemic entered its third year in March 2022. By July 2022, 21 people had died. In describing the parallels between Bhutanese Buddhist values and practices, and care ethics articulated by Western moral theorists, I draw on political scientist Joan Tronto's (1993) explication of care ethics, which identifies four central elements: attentiveness, responsibility, competence, and responsiveness.

Scholarly debate about the existence of a distinctively Buddhist environmental ethic has focused on the examination of canonical texts to elucidate original intentions and directives (De Silva 1998, Sahni 2008), as well as identifying strands within Buddhist texts that harmonize with contemporary ecological ideas (Tucker and Williams 1997, Kaza and Kraft 2000). Buddhism has been found to promote an environmental virtue ethic (Sahni 2008). The accumulation of virtue (*sonam*) is crucial for Buddhists on the journey toward enlightenment. The Buddhist virtues of compassion (*karunā*), universal love (*mettā*), non-injury (*ahimsā*), gentleness (*maddava*), tenderness (*soracca*), and generosity (*dāna*) correspond with virtues and practices that care ethicists elevate. To act on virtues is to express care as an affective, embodied

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practice of lived experience. The evaluation of an implicit care ethic in Bhutanese Buddhism adds another perspective for understanding Buddhist environmental ethics. Blending digital ethnography and ethical reflection to explore lived ecological ethics, this paper identifies and articulates extant values and practices that contribute to eco-social well-being, offering a model for alternative sustainable futures.

ECO-SOCIAL CONTEXT OF BHUTAN

Mountainous, landlocked Bhutan borders the Tibetan Autonomous Region of China and shares a porous southern border with India, its largest trading partner. The sparsely populated country has roughly one-third the land area of nearby Nepal, and less than one-thirtieth of Nepal's population. Internationally known for its environmental commitments, Bhutan enshrined them in its 2008 Constitution, which obliges citizens to protect the natural environment, and requires that 60% of the country remain under forest cover in perpetuity. In 2016, 71% of the country was under forest cover (Royal Government of Bhutan [RGOB] 2018). More than half of Bhutan's territory is within parks, protected areas, and the biological corridors joining them—one of the highest proportions in the world. Bhutan's forests serve as a "carbon sink" of global importance. At the 2009 United Nations Climate Change Conference of the Parties (COP 15), Bhutan presented a statement declaring "The Land of Gross National Happiness to Save our Planet," in which it vowed to continue to be carbon negative and serve as a global carbon sink (RGOB 2011).

Bhutan's 1200-year history of Mahayana Buddhism blends with indigenous animistic and shamanistic beliefs to create a unique socio-spiritual context that has influenced its constitution, government policies, the landscape, and daily life (Whitecross 2004, Phuntsho 2013, Allison 2017).^[2] Buddhism teaches the Four Noble Truths: life is suffused with suffering, caused by ignorance and craving for permanence, and that the cessation of suffering is possible by following the Noble Eightfold Path (involving guidance, meditation, and right action, among other steps, leading to freedom from suffering, that is, to enlightenment). The 2008 Constitution recognizes Mahayana Buddhism, the guiding values of which are wisdom and compassion for the good of all sentient beings, as the cultural heritage of Bhutan. Buddhism infuses the built and social landscape in the form of temples, chortens, and prayer flags, daily household practices of prayers and offerings, and cultural events. A Central Monastic Body (*Zhung Dratshang*) under the guidance of the chief abbot, or *Je Khenpo*, His Holiness Trulku Jigme Chhoeda, as well as numerous monasteries and temples across the country, support Buddhist practice.

Arising from the country's Buddhist context, Gross National Happiness (GNH) is the guiding policy paradigm against which new initiatives are measured. GNH seeks to balance good governance, sustainable and equitable socioeconomic development, cultural preservation, and environmental conservation. To monitor progress toward GNH, the Centre for Bhutan Studies devised a series of nine GNH variables, or "domains," comprising living standards, education, health, environment, community, vitality, time use, psychological well-being, good governance, and cultural resilience and promotion, each of which is further divided into numerous indicators on which researchers survey the

populace regularly. The social, ecological, and political foundations create a particular context in which values of care are prevalent.

FEMINIST ETHICS OF CARE

The incorporation of care ethics into environmental analysis builds on the affective turn in political ecology and the environmental humanities. Following the groundbreaking work of moral theorist Carol Gilligan (1993), who observed that developmental hierarchies of moral values failed to capture the concerns of girls and women, feminist philosopher Nel Noddings developed a moral theory based on the foundational experience of caring. In her classic formulation, care ethics locates the "wellspring of ethical behavior in human affective response," with relation as ontologically basic (Noddings 2003:3). Care thus begins at the very beginning of human, or mammalian, life.

Prioritizing caring relationships and subjective feelings of compassion, love, and empathy, feminist ethics of care elevates emotions and relationships to a moral role (Beauchamp and Childress 2001). As such, ethics of care contrasts with ethical theories that begin with universal first principles and elevate the public realm, while submerging as trivial the so-called private realm of relationships, organized and structured predominantly by women. In the context of frailty and dependency, which all humans will eventually encounter, and which many ecosystems are facing in the present, compassion, responsiveness, and attentiveness to needs are appropriate and effective moral responses.

Care work is a central practice of maintaining households, social groups, and surroundings, including ecological surroundings. To take caring out of the private, voluntarist, domestic sphere, Fisher and Tronto (1990) define caring as "a species activity that includes everything we do to maintain, continue, and repair our 'world' so we can live in it as well as possible" (34); caregiving then is the "concrete (sometimes called hands-on) work of maintaining and repairing our world" (37). This definition clarifies that care work is not gender-bound and that it necessarily includes caring for the more-than-human ecological systems that support human life. Care is the "concrete work of maintenance" (de la Bellacasa 2017:5), therefore central to any ethic or practice of environmental stewardship, a notion that Pope Francis amplified in his 2015 encyclical, *Laudato Si': On Care for Our Common Home*, strengthening the idea of "creation care" in Christian eco-theology (Daly et al. 1989, DeWitt 1994, Pope Francis 2015). To further elucidate the particular practices of an ecological care ethic, I build on Tronto's formulation of the four elements of a care ethic: attentiveness (awareness of others' interests and needs), responsibility (ability to act on those interests and needs), competence (adequate skill and efficacy), and responsiveness of the care-receiver (remaining "alert to the possibilities for abuse that arise with vulnerability"; 1993:135). In addition to these, the case studies from Bhutan point to two additional elements: humility and vulnerability.

METHODOLOGY

Drawing together four disparate bodies of literature (feminist care ethics, traditional ecological knowledge [TEK], community-based natural resource management [CBNRM], and contemporary pandemic response), this article presents two brief

case studies from Bhutan, one on rural land management beliefs and practices and the second on its response to the C-19 pandemic, to demonstrate an eco-social care ethic embedded in Bhutanese values and traditional practices.

The case study of TEK in rural land management builds on ethnographic fieldwork in Bhutan between 2000 and 2008 in eight of the 20 Bhutanese districts (Allison 2009, 2015, 2016, 2017, 2019), along with the work of numerous Bhutanese and foreign researchers who have published on the localized values and practice related to Bhutanese CBNRM (e.g., Pommaret 1996, Giesch 2000, Dorji and Webb 2003, Giri 2004, Pommaret 2004, Chhetri 2010, Phuntsho 2011, Dorji et al. 2014, Phuntsho 2013, Kuyakanon and Gyeltshen 2017, Montes et al. 2020a, Montes et al. 2020b).

Digital ethnography (Salmons 2018), conducted through observation of and participation with Bhutanese and international colleagues in extant public social media groups, such as Drukrig Network of Bhutan Scholars, Samdrup Jonkhar Initiative, Loden Foundation, and Druk ge Ney (pilgrimage sites of Bhutan), as well as a review of Bhutan's newspapers (Kuensel, Bhutan Times, and The Bhutanese) generates the C-19 response case study. Additional documents reviewed for this case study include news reports, the 37 journal articles on Bhutan and C-19 found in Web of Science in 2021–2022, and all Instagram posts of the Ministry of Health, beginning 1 February 2020 through 11 March 2022. Publicly available materials are hyperlinked in a document archived at osf.io under the author's name.

IMPLICIT CARE ETHIC IN BHUTANESE TRADITIONAL ECOLOGICAL PRACTICES

Never colonized, Bhutan has preserved a unique history of cultural continuity shaping rural beliefs and practices that demonstrate restraint and reciprocity with the landscape. TEK is deep-rooted cultural knowledge, developed over extended time, conveyed through stories, and passed down through the generations, perceiving humans as integral participants in an interconnected, responsive landscape (Berkes 2018). Over the centuries, ancient animist and shamanist practices blended with Buddhism to provide the ontological foundations for an indigenous care ethic that connects humans, landscape, and guardian deities. Through respectful relationships with the landscape and other-than-human beings, rural Bhutanese traditional culture extends care to forests, waters, mountains, wild species, and the landscape as a whole, demonstrating attentiveness, responsibility, competence, and responsiveness in relation to the landscape.

The rural Bhutanese ontology perceives protector and guardian deities inhabiting the landscape and designating some places as set apart from humans, as is common throughout the Tibetan cultural sphere of the Himalaya and Tibetan Plateau (Nebesky-Wojkowitz 1975, Samuel 1993, Pommaret 1996, Ura 2001). As the Royal Society for the Protection of Nature observes in the foreword to its *Buddhism and the Environment* publication, a document that both describes and prescribes an ideal Bhutanese relationship with the landscape: “Even today, mountains, lakes, rivers, streams, and rocky cliffs are respected by communities as abodes of spirits and deities and remain free from human contact and pollution” (2006). These unseen beings exert material effects, occupying physical space, including forest groves, river bends, and

mountainsides, and influencing rural land management through territorial prohibitions and propitiatory demands (Allison 2004, Chhetri 2010, Phuntsho 2011, Wangdi et al. 2014, Kuyakanon and Gyeltshen 2017).

Territorial and landscape deities are understood to be the original owners of the land, exerting parental control over the people residing in their domain. This reciprocal relationship is often expressed through familial terms of kinship, such as *Apal Ap* (“father”), *Ama* (“mother”), or *Meme* (“grandfather”), whereas the protector deity *neypo* (Dz.^[3] *gnas po*) is literally “host” of an area, who requires appropriate etiquette and deference from visitors (Pommaret 2004). Kinship terms knit together relations between humans, deities, and the landscape, invoking the responsibilities of care inherent in reciprocal relationships and extending kinship across the landscape. Such reciprocal relations show that human well-being exists only in relation to the original owners of the lands and waters.

Attentiveness and responsibility to landscape

Beliefs and practices related to deities and their landscape abodes or “citadels” (Dz. *pho drang*), just a few of which are described below, contribute to customary community institutions for natural resource management (Allison 2004, Giri 2004). For example, one traditional form of forest management, continuing in some villages today, is the appointment of a *reesup* (village forest guard) to ensure a sufficient and fair harvest for all villagers. The *reesup* has the power to impose *la dam* or *reedum* (Dz. *ri bsdam* = mountain and “to close” or “to seal”), a mountain forest closure and prohibition on harvesting timber and/or bamboo during the summer to avoid trespassing in the territory of the local guardian deity (Wangchuk 2001, Allison 2004, Giri 2004, Wangdi et al. 2014, Kuyakanon and Gyeltshen 2017).

This practice requires attentiveness to seasonal changes and signs from deities, responsibility to invoke the closure, competence to organize the community to maintain the closure, and responsiveness to monitor the closure period from both human and nonhuman perspectives. In recent decades, increasing interest in cultural preservation according to GNH principles, as well as scientific evidence of the value of community-based natural resource management, has found some government officials promoting TEK and reminding villagers of the practices of their parents and grandparents (Tshering 2006, Allison 2017).

Villagers express attentiveness, one component of Tronto's (1993) care ethic, to subtle social, ecological, and spiritual conditions. They may consult with a diviner known as a *pawo* (Dz. *dpa' bo*) to perceive the deities' requirements for offerings of grain, milk, or incense, the timing and boundaries for seasonal closures of forest groves and mountainsides, as well as restrictions on behavior near water sources (Giesch 2000, Allison 2004, Giri 2004). Competent responses with prayers and offerings are understood to be necessary to maintain reciprocal relationships with the deities who control fertility and prosperity of the local area. The deities' and landscape's responsiveness to this care is perceived through timely precipitation, bountiful harvests, and congenial village conditions.

The centrality of protector deities to Bhutan's cultural and territorial identity can be seen in efforts to appease them during the C-19 pandemic, demonstrating humility and vulnerability in

light of an emergent and unpredictable pandemic. Six months into the pandemic, the Monastic Body performed a three-day Lhamo Bakchog *kurim* (Dz. *sku rims*) ceremony to appease Palden Lhamo (or Mahakali), one of Bhutan's chief protective deities, encouraging her to withdraw diseases and calamities (Wangchuk 2020). A year later, the Je Khenpo, Bhutan's spiritual leader, discerned that numerous *kurim* protective rituals were needed along the southern border and that raising 1000 prayer flags in the border area was necessary to pacify C-19 and secure well-being (Ministry of Health 2021, Penjor 2021).

Attentiveness and responsibility to water

Within the mountainous landscape, special attention to sources of fertility and prosperity, essential for rural villages, is demonstrated through attentiveness and responsibility to hydrological features, including lakes, water springs, and mountains, on the slopes of which accumulate the snow and ice that feed rivers and irrigation. Lakes are often home to gift-giving deities, or *tsomen* (Dz. *mtsho sman*), easily offended by moral, spiritual, or material pollution, which causes them to depart, rescinding their gifts (Phuntsho 2013, Allison 2015). Villagers demonstrate responsibility, humility, and competence through adherence to strict rules governing behavior in these places to avoid spiritual pollution, including refraining from using "strong" foods, cooking, or burning meat. Water springs may be home to *lu* (Dz. *klu*) spirits, guardians of underground treasure, able to influence abundance and prosperity provided humans demonstrate the attentiveness and responsibility to keep their home free from spiritual contamination and human waste, and show their competence through appropriate offerings (Allison 2019, Montes et al. 2020a, Montes et al. 2020b). Water features are understood to exhibit responsiveness, dehydrating or departing when mistreated, and imposing vulnerability on villagers whose livelihoods would suffer without water. Villagers' awareness of this vulnerability generates humility and reciprocal responsibility, requiring the maintenance of water sources so that they remain free of human, material, and ritual pollution, and the provision of appropriate prayers and offerings to ensure positive relations with water-dwelling deities and spirits.

BHUTAN'S COVID-19 RESPONSE: CARE GROUNDED IN CULTURAL VALUES

This relational ontology that offers holistic attentiveness to the needs of myriad beings became even more evident during the C-19 pandemic. When the C-19 pandemic broke out in early 2020, Bhutan appeared to be uniquely vulnerable, with 48 hospitals (and only three intensive care facilities), 376 doctors (only one of whom was trained in critical care; none specializing in infectious diseases, virology, or immunology), eight ventilators available for C-19 patients, and 3000 health workers to serve three-quarters of a million people, two-thirds of whom live in rural areas (Lamsang 2020, Dorji 2021, Dorji and Tamang 2021, Drexler 2021).

Despite this apparent vulnerability, Bhutan has limited its C-19 cases to 20,116 (as of 16 March 2022) and deaths to 21 (RGOB 2022). Various political, demographic, and physical conditions have been hypothesized as contributing to this successful control of the pandemic: planning and preparation, including an eerily prescient pandemic simulation; decisive action of the king and parliament; a young population; rapid, extensive contact tracing and testing; a 21-day quarantine requirement; and the country's high elevation (Dorji 2021, Tshokey et al. 2021a).

In addition, Bhutan's response built on religious and indigenous ontological and epistemological foundations, incorporating "soft technology" (attitudes, social practices, and habits of mind) into culturally relevant public health strategies (Dorji 2021, Kaul 2021, Rocha 2021). Bhutan's pandemic response exemplifies the four elements of Tronto's 1993 care ethic: attentiveness,^[4] responsibility, competence, and responsiveness, as well as humility and recognition of vulnerability.

Values of care: attentiveness

Government leaders demonstrated attentiveness in their awareness of the interests and needs of the citizens for stability, comfort, and guidance in relation to the pandemic. In particular, the leaders centered Buddhist and indigenous cultural foundations in Bhutan's pandemic response, grounding emergent conditions in a familiar context. As the prime minister noted in his State of the Nation 2020 report: "In all pursuits, we seek refuge in the Triple Gem and our religious bodies. In such turbulent times, as much as we rely on scientific discoveries, this nation always found answers in our spirituality" (Tshering 2020:16).^[5] Religious leaders, revered by the populace, were at the forefront of pandemic response, advocating for masks, distancing, and vaccines; advising on navigating the restrictions of quarantine; and conducting prayers and ceremonies to forestall the pandemic, as well as to commemorate global deaths (Dorji 2021, Namgay 2021, Tsheten et al. 2022). The Je Khenpo encouraged those in Covid quarantine or lockdown to recite the Chenrezi and Vajra Guru mantras to remedy outer and inner illnesses (Palden 2020). Likewise, the Ministry of Health encouraged people to take care of their mental health during lockdown by, for example, contacting friends and family, and to "pray, meditate, prostrate, and engage in spiritual deeds" (Ministry of Health 2022a).

The nation's mass vaccination effort demonstrated attentiveness to the religious and cultural needs of the populace, along with attentiveness to the significant health threat of the virus. Government offices, including those of the prime minister, foreign minister, and health minister, undertook a massive vaccine public education campaign to allay fears and prepare the populace for vaccinations (Tsheten et al. 2022). The first vaccination campaign was scheduled for an auspicious time as indicated by the *Zhung Dratshang* (Central Monastic Body). Although Bhutan received its first shipment of vaccines in early 2021, the Year of the Ox, the vaccination campaign was postponed because the Bhutanese month of Dana, 14 February to 13 March, was seen as inauspicious (Rocha 2021). A woman born in the Year of the Monkey, according to the Bhutanese calendar, received the first shot at 9:30 AM on 27 March 2021, from a nurse also born in the Year of the Monkey,^[6] accompanied by chanted prayers and lighted butter lamps, per the Monastic Body's guidance (Rocha 2021). Between 27 March and 9 April 2021, more than 94% of the eligible adult population were vaccinated with the AstraZeneca vaccine provided by India, with vaccinations delivered by helicopter and on foot to remote regions (Dorji and Tamang 2021, Tsheten et al. 2022). Previous eradication of vaccine-preventable diseases such as poliomyelitis in 1988 and measles in 2017 facilitated receptivity to vaccinations (Dorji and Tamang 2021). The second round of vaccinations began on 20 July 2021, an auspicious day, reaching 95.6% of the eligible adult population over the next two weeks (Tsheten et al. 2022).

The actions of the Fifth King, His Majesty Jigme Khesar Namgyel Wangchuk, and the praise of the prime minister, expressed normative values of attentiveness to citizen needs, care, and compassion. The king commanded that “no Bhutanese citizen should succumb to the virus” (Tshering 2020:28), traveling to remote parts of the country to convey necessary pandemic health protocols (Tsheten et al. 2022). The prime minister commended the “compassionate King,” who “cloaked his nation in safety and comfort, taking all concerns and sacrifices upon himself” (Tshering 2020:8). Creating a narrative both descriptive and normative, the prime minister emphasized the king’s “empowering benevolence” and “incomparable altruism” as “most compassionate” “acts of kindness,” and cited the “love and encouragement of the people” as being a key strength in addressing the pandemic (Tshering 2020:12).

Values of care: responsibility

Bhutan’s C-19 control initiative elevated the idea of collective responsibility. On 20 March 2020, the Je Khenpo began a three-day televised and social media broadcast of the protective *Sangay Menlha* (Medicine Buddha) initiation against disease, watched by more than 9000 Bhutanese at home and abroad (Palden 2020, Verma and Wangmo 2020, Rocha 2021). The Je Khenpo reminded practitioners of the importance of attentiveness and responsibility: “If we are reckless, we will not only harm our fellow beings but the entire nation will be affected. Putting into practice the instructions given by the Ministry of Health is absolutely essential” (Palden 2020). The Je Khenpo warned of *lenchak* or “karmic retribution” for humanity’s negative deeds, which could include eating other animals and the destructive capacity of nuclear weapons (Palden 2020).

The Je Khenpo launched the *Our Gyenkhru* (Our Responsibility) initiative at Tashichho Dzong, the seat of government in Thimphu, in a special ceremony in October 2020, emphasizing the necessity of collectivity for addressing the pandemic (Ministry of Health 2020). Government leaders, including the prime minister, the king, the health minister, and others, issued a consistent message to the populace to recognize “our gyenkhru—our responsibility,” calling on citizens to wear masks, wash their hands, and exercise regularly to maintain their health, via television, radio, and social media messages conveyed in multiple languages and dialects, and gaining commendation from the World Health Organization (WHO) and the United Nations (Tshedup 2020a, Daly 2021, Dorji 2021).

The king’s call for a collective response and shared sacrifice helped mobilize tens of thousands of trained volunteer *desuups*, or Guardians of Peace, to support public health interventions such as the promotion of mask wearing, contact tracing, testing, delivering food and care to people quarantining at home, feeding street dogs, and staffing quarantine facilities (Dorji 2021, Tsheten et al. 2022). An outpouring of giving, or *dāna*, a Buddhist virtue, from ordinary citizens and parliamentarians enhanced the prime minister’s Covid-19 Resilience Fund (Nu 30 billion, approximately USD \$405 million) and the king’s Druk Gyalpo’s Relief *Kidu* Fund, wrapping impoverished citizens in economic care (Verma and Wangmo 2020, Dorji 2021). At the beginning of 2022, the king praised the citizenry for unity, cooperation, sacrifice, and volunteerism (Drukpa 2022).

Values of care: competence

Bhutan’s public health response emphasized competence, adopting high standards for nonpharmaceutical interventions. For example, despite more than 2600 positive cases and three deaths in the first year and a half of the pandemic, Bhutan’s 906 healthcare workers involved in C-19 care remained infection free, an outcome attributed to the ready availability of full suites of personal protective equipment (PPE), including certified N95 respirators, goggles, and face shields; frequent training on their use; as well as clustered management of Covid cases at four national Covid centers (Tshokey et al. 2021b). The provision of appropriate PPE preserved the well-being of the precious human resources that healthcare workers (HCWs) represent. As a report drily concluded: “Such situations contribute greatly in motivation, dedication, and confidence of HCWs and also avert HCW burnout and shortages” (Tshokey et al. 2021b:248).

The government prioritized public health interventions over economic indicators in keeping with GNH (Dorji 2021, Tshedup 2021). The valuable tourism sector shut down quickly, as Bhutan closed its borders and instituted a strict lockdown, with mass testing and a 21-day quarantine policy for anyone found to be infected (Tamang et al. 2021). Healthcare is provided free of cost. Returning Bhutanese citizens were subject to the 21-day quarantine, which revealed several cases during the third week of quarantine, preventing exposure of the larger community (Dorji 2021). Cases detected in the Indian border towns of Gelephu and Phuentsholing led to a national 21-day lockdown (Dorji 2021).

Values of care: humility and vulnerability

The caring values discussed above depend on the ability to decenter the self to perceive the needs of others: a practice of humility, which, along with the related recognition of vulnerability, was evident in the pandemic response. The Ministry of Health (2022b) asserted that humility was an important value in addressing C-19 via its Instagram page, where it advised “I wear my facemask in public FOR THREE REASONS: Humility: I don’t know if I have COVID-19, as it is clear that people can spread the disease before they have symptoms.”

Likewise, the country’s pandemic preparedness, planning, and prevention demonstrated humility and the recognition of vulnerability. With awareness of the country’s vulnerability to infectious disease, the Ministry of Health and WHO had conducted a public health simulation in November 2019, just months before the pandemic broke out, to test their response to an international passenger suspected of carrying a “coronavirus disease” at the Paro International Airport, the only air entry point, allowing relevant agencies to identify areas for improvement (WHO 2020). The simulation readied government agencies to begin preparedness planning in early January 2020, shortly after the novel coronavirus was recognized in China, and to begin screening airport arrivals for the novel coronavirus in mid-January 2020, long before many other nations took the threat seriously (Tshedup 2020b). In recognizing possible threats, learning from weaknesses discovered in the simulation, and developing responses, the Bhutanese displayed caring values of humility and vulnerability. The addition of humility and vulnerability to the elements of a care ethic emphasizes the need for mutual support, deepening into recognition of holistic eco-social interdependence.

CONCLUSION: TOWARD AN ECOLOGICAL CARE ETHIC

Attention to care ethics and the environmental caretaking practices of Indigenous, traditional, and rural societies is an important strategy for both Indigenous sovereignty and self-determination, and for greater ecological sustainability and resilience. For too long, affective approaches to care have been conflated with the “natural” capacities of women and people of color and derided as subjective and unscientific. However, caring relationships are part and parcel of mammalian life from its very earliest stages, enticing people to devote time and attention to others who need support, in turn strengthening and deepening social relationships that form the fabric of society. Specific values and practices of environmental and social caretaking have sustained culture and life in Bhutan, in both rural and urban contexts, demonstrating the relevance and efficacy of care ethics for building sustainable futures. I have shown how caring practices of attentiveness, responsibility, competence, and responsiveness, as well as humility and vulnerability, shape rural interactions with the landscape and informed the Bhutanese response to the C-19 pandemic. In identifying specific values and practices of care for the eco-social commons in Bhutan, I have brought specificity to care ethics in a particular cultural context, demonstrating the resonance of Bhutanese Buddhist values and care ethics, and have laid the groundwork for developing a more widely applicable ecological care ethic.

^[1] I capitalize Indigenous in reference to an identity. Lowercase “indigenous” refers to an entity or practice long existing in a geographic place.

^[2] About one-quarter of the populace, residing mainly in southern Bhutan and often politically marginalized, follows Hinduism. In the late 1980s and 1990s, tensions between the Buddhist majority and Hindu minority erupted, and thousands of Lhotsampas, or Southern Bhutanese, fled the country, ending up in refugee camps in Nepal in a highly contentious situation (see Hutt 2003 for details). The discussion here refers to Buddhist cultural groups, with whom I have conducted fieldwork on the intersection of religion and environmental conservation, and more broadly eco-social sustainability.

^[3] Dzongkha, related to the Tibetan language, is the national language, along with English. Depending on how dialects are counted, as many as 20 languages are spoken across the country.

^[4] In this Buddhist context, attentiveness and responsibility merge in the Buddhist notion of compassion: observing, recognizing, and noticing the concerns of another, along with the desire to take action to respond to their concerns.

^[5] In Buddhism, the Triple Gem refers to the Buddha, the Dharma (the teachings of the Buddha), and the Sangha (the community of Buddhist practitioners).

^[6] The Bhutanese lunar calendar designates years with animal names, such as Ox, Monkey, Rooster, and Dragon, according to a 12-year cycle. News reports indicated the birth year of the vaccine recipient and nurse as a standard way of reporting age, with the matching birth years being seen as auspicious.

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Data/code sharing is not applicable to this article because no data/code were analyzed in this study. A list of publicly available news articles and web sources has been archived at osf.io.

LITERATURE CITED

Allison, E. 2004. Spiritually-motivated natural resource management in Eastern Bhutan. Pages 528-561 in K. Ura and S. Kinga, editors. *The spider and the piglet*. Centre for Bhutan Studies, Thimphu, Bhutan.

Allison, E. 2009. *Enspirited places, material traces: the sanctified and the sacrificed in modernizing Bhutan*. Dissertation, University of California Berkeley, Berkeley, California, USA.

Allison, E. 2015. Waste and worldviews: pollution challenges in Bhutan. *Journal for the Study of Religion, Nature and Culture* 8 (4):405-428. <https://doi.org/10.1558/jsrnc.v8i4.25050>

Allison, E. 2016. At the boundary of modernity: religion, technocracy, and waste management in Bhutan. Pages 183-202 in M. Sijapati and J. V. Birkenholtz, editors. *Religion and modernity in the Himalayas*. Routledge, New York, New York, USA.

Allison, E. 2017. Spirits and nature: the intertwining of sacred cosmologies and environmental conservation in Bhutan. *Journal for the Study of Religion, Nature, and Culture* 11(2):197-226. <https://doi.org/10.1558/jsrnc.18805>

Allison, E. 2019. Deity citadels: sacred sites of bio-cultural resistance and resilience in Bhutan. *Religions* 10(4):268. <https://doi.org/10.3390/rel10040268>

Beamer, K., K. Elkington, P. Souza, A. Tuma, A. Thorenz, S. Köhler, K. Kukea-Shultz, K. Kotubetey, and K. B. Winter. 2023. Island and Indigenous systems of circularity: how Hawai'i can inform the development of universal circular economy policy goals. *Ecology and Society* 28(1):9. <https://doi.org/10.5751/ES-13656-280109>

Beauchamp, T. L., and J. F. Childress. 2001. *Principles of biomedical ethics*. Oxford University Press, New York, New York, USA.

Berkes, F. 2018. *Sacred ecology*. Fourth edition. Routledge, New York, New York, USA.

Cajete, G. 2000. *Native science: natural laws of interdependence*. Clear Light, Santa Fe, New Mexico, USA.

Chhetri, D. 2010. Towards a sacred natural site inventory. *KuenselOnline*, 18 May.

Daly, G. 2021. Bhutan, the vaccination nation: a UN resident coordinator blog. *UN News*, 23 May. <https://news.un.org/en/story/2021/05/1092422>

- Daly, H. E., and J. B. Cobb, Jr. 1989. For the common good: redirecting the economy toward community, the environment, and a sustainable future. Beacon, Boston, Massachusetts, USA.
- de la Bellacasa, M. P. 2017. Matters of care: speculative ethics in more than human worlds. University of Minnesota Press, Minneapolis, Minnesota, USA. <https://doi.org/10.1017/S2753906700002096>
- De Silva, P. 1998. Environmental philosophy and ethics in Buddhism. St. Martin's, New York, New York, USA. <https://doi.org/10.1007/978-1-349-26772-9>
- DeWitt, C. B. 1994. Earth-wise: a Biblical response to environmental issues. CRC, Grand Rapids, Michigan, USA.
- Dorji, L., and E. L. Webb. 2003. Evolution of political economy and forest management in Bhutan. Politics of the commons: articulating development and strengthening local practices conference, 11-14 July 2003. Chiang Mai University, Chiang Mai, Thailand.
- Dorji, T. 2021. The gross national happiness framework and the health system response to the COVID-19 pandemic in Bhutan. American Journal of Tropical Medicine and Hygiene 104 (2):441-445. <https://doi.org/10.4269/ajtmh.20-1416>
- Dorji, T., and S. T. Tamang. 2021. Bhutan's experience with COVID-19 vaccination in 2021. BMJ Global Health 6:e005977. <https://doi.org/10.1136/bmjgh-2021-005977>
- Dorji, T., N. Wangdi, and K. Wangdi. 2016. Hotsprings and mineral springs of Bhutan. Ugyen Wangchuck Institute for Conservation and Environment, Lamai Gompa, Bumthang, Bhutan.
- Drexler, M. 2021. The unlikely pandemic success story. Atlantic, 10 February. <https://www.theatlantic.com/international/archive/2021/02/coronavirus-pandemic-bhutan/617976/>
- Drukpa, U. 2022. Bhutan's Covid-19 journey in 2021. Bhutanese, 1 January. <https://thebhutanese.bt/bhutans-covid-19-journey-in-2021/>
- Engster, D. 2018. Moral boundaries, still. Politics & Gender 14 (4):8-12.
- Fisher, B., and J. C. Tronto. 1990. Toward a feminist theory of caring. Pages 35-63 in E. K. Abel and M. K. Nelson, editors. Circles of care: work and identity in women's lives. State University of New York Press, New York, New York, USA.
- Giesch, C. 2000. Evolution of the forest uses and their impact on the forest structure with regard to sustainability in central Bhutan. Dissertation, ETH Zürich, Zürich, Switzerland.
- Gilligan, C. 1993. In a different voice: psychological theory and women's development. Harvard University Press, Cambridge, Massachusetts, USA. <https://doi.org/10.2307/j.ctvj2wr9>
- Giri, S. 2004. The vital link: Monpas and their forests. Centre for Bhutan Studies, Thimphu, Bhutan.
- Hirschmann, N. J. 2018. Care as a political concept: now more than ever. Politics & Gender 14:4-8.
- Hutt, M. 2003. Unbecoming citizens: culture, nationhood, and the flight of refugees from Bhutan. Oxford University Press, New York, New York, USA.
- Kaul, N. 2021. Small state, big example: Covid pandemic management in Bhutan. Critical Studies on Security 9(1):58-62. <https://doi.org/10.1080/21624887.2021.1904359>
- Kaza, S., and K. Kraft. 2000. Dharma rain: sources of Buddhist environmentalism. Shambhala, Boston, Massachusetts, USA.
- Kimmerer, R. W. 2013. Braiding sweetgrass: Indigenous wisdom, scientific knowledge, and the teachings of plants. Milkweed, Minneapolis, Minnesota, USA.
- Kuyakanon, R., and D. Gyeltshen. 2017. Propitiating the tsen, sealing the mountain: community mountain-closure ritual and practice in eastern Bhutan. HIMALAYA 37(1):8-25.
- Lamsang, T. 2020. Anxious wait for Bhutan for lifesaving medical equipment and supplies with raging global demand. Bhutanese, 4 April. <https://thebhutanese.bt/anxious-wait-for-bhutan-for-lifesaving-medical-equipment-and-supplies-with-raging-global-demand/>
- Ministry of Health. 2020. Update: "Our Gyenku." Ministry of Health, Royal Government of Bhutan, Thimphu, Bhutan. <https://www.moh.gov.bt/update-our-gyenku-6/>
- Ministry of Health. 2021. The Zhung Dratshang is conducting numerous Kurims. Ministry of Health, Royal Government of Bhutan, Thimphu, Bhutan. <https://www.instagram.com/p/CSy812Qp7yB/>
- Ministry of Health. 2022a. Five ways to take care of your mental health during lockdowns. Ministry of Health, Royal Government of Bhutan, Thimphu, Bhutan. <https://www.instagram.com/p/CZ1TeQdh1IX/>
- Ministry of Health. 2022b. I wear my facemask in public for three reasons. Ministry of Health, Royal Government of Bhutan, Thimphu, Bhutan. https://www.instagram.com/p/CZV6r8eBc_t/
- Montes, J., B. Kafley, and T. Dema. 2020a. Territory, relationality and the labour of deities: importing Raffestin on the Bhutanese spiritual landscape. Rig Tshoel: Research Journal of the Royal Thimphu College 3(1):27-45.
- Montes, J., S. Tsheringa, T. Phuntsho, and R. Fletcher. 2020b. Cosmological subjectivities: exploring "truth" environmentalities in the Haa Highlands of Bhutan. Conservation and Society 18 (4):355-365. <https://doi.org/10.4103/cs.cs.19.47>
- Namgay, T. 2021. Special prayers for His Holiness the Je Khenpo. KuenselOnline, 28 April. <https://kuenselonline.com/special-prayers-for-his-holiness-the-je-khenpo/>
- Nebesky-Wojtkowitz, R. D. 1975. Oracles and demons of Tibet: the cult and iconography of the Tibetan protective deities. Akademische Druck-u. Verlagsanstalt, Graz, Austria.
- Nelson, M. K., and D. Shilling. 2018. Traditional ecological knowledge: learning from Indigenous practices for environmental sustainability. Cambridge University Press, Cambridge, UK. <https://doi.org/10.1017/9781108552998>
- Noddings, N. 2003. Caring: a feminine approach to ethics & moral education. University of California Press, Berkeley, California, USA.
- Palden, T. 2020. Listen to health experts: His Holiness the Je Khenpo. KuenselOnline, 21 March. <https://kuenselonline.com/listen-to-health-experts-his-holiness-the-je-khenpo/>

- Penjor, S. 2021. Zhung Dratshang conducts Kurim in Phuentshogling to avert the risks posed by Covid-19. Bhutan Broadcasting Service, 20 August. <http://www.bbs.bt/news/?p=155991>
- Phuntsho, K. 2013. History of Bhutan. Random House India, Delhi, India.
- Phuntsho, S. 2011. Sacred groves in Bhutan: a case study from Ura Geog. Pages 28-31 in L. Higgins-Zogib, N. Dudley, T. Aziz, and S. Malla, editors. Sacred natural sites, bio-cultural diversity, and climate change in the Eastern Himalayas. WWF - World Wildlife Fund for Nature, Thimphu, Bhutan.
- Pommaret, F. 1996. On local and mountain deities in Bhutan. Pages 39-56 in A.-M. Blondeau and E. Steinkellner, editors. Reflections of the mountain: essays on the history and social meaning of the mountain cult in Tibet and the Himalaya. Verlag Der Osterreichischen Akademie Der Wissenschaften, Vienna, Austria.
- Pommaret, F. 2004. Yul and Yul Lha: the territory and its deity in Bhutan. *Bulletin of Tibetology* 40:39-67.
- Pope Francis. 2015. *Laudato Si'*: on care for our common home. Holy See, Vatican City. https://www.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html
- Robinson, F. 1997. Globalizing care: ethics, feminist theory, and international relations. *Alternatives: Global, Local, Political* 22 (1):113-133. <https://doi.org/10.4324/9780429500183>
- Rocha, I. C. N. 2021. Employing medical anthropology approach as an additional public health strategy in promoting Covid-19 vaccine acceptance in Bhutan. *International Journal of Health Planning and Management* 36(5):1943-1946. <https://doi.org/10.1002/hpm.3191>
- Royal Government of Bhutan (RGOB). 2011. Second national communication to the UNFCCC. National Environment Commission, Thimphu, Bhutan. <https://unfccc.int/resource/docs/natc/bhunc2.pdf>
- Royal Government of Bhutan (RGOB). 2018. Bhutan at a glance 2018. RGOB, Thimphu, Bhutan. <https://www.nsb.gov.bt/publications/insights/bhutan-at-a-glance/>
- Royal Government of Bhutan (RGOB). 2022. Together we can defeat Covid-19. RGOB, Thimphu, Bhutan. <https://www.gov.bt/covid19/>
- Royal Society for the Protection of Nature. 2006. Buddhism and the environment. Royal Society for the Protection of Nature, Thimphu, Bhutan.
- Sahni, P. 2008. Environmental ethics in Buddhism: a virtues approach. Routledge, New York, New York, USA. <https://doi.org/10.4324/9780203946961>
- Salmons, J. 2018. Using social media in data collection: designing studies with the qualitative e-research framework. In L. Sloan and A. Quan-Haase, editors. SAGE handbook of social media research methods. SAGE, Thousand Oaks, California, USA.
- Samuel, G. 1993. Civilized shamans: Buddhism in Tibetan societies. Smithsonian, Washington, D.C., USA.
- Tamang, S. T., K. Lhendup, and T. Dorji. 2021. Control of travel-related COVID-19 in Bhutan. *Journal of Travel Medicine* 28(7): taab137. <https://doi.org/10.1093/jtm/taab137>
- Tronto, J. C. 1993. Moral boundaries: a political argument for an ethic of care. Routledge, New York, New York, USA.
- Tshedup, Y. 2020a. Bhutan's pandemic fight exemplary: WHO. KuenselOnline, 26 August. <https://kuenselonline.com/bhutans-pandemic-fight-exemplary-who/>
- Tshedup, Y. 2020b. We'll come out of this as a more united and resilient nation: Health Minister. KuenselOnline, 24 April. <https://kuenselonline.com/well-come-out-of-this-as-a-more-united-and-resilient-nation-health-minister/>
- Tshedup, Y. 2021. A year after Bhutan's first Covid-19 case. KuenselOnline, 5 May. <https://kuenselonline.com/a-year-after-bhutans-first-covid-19-case/>
- Tshering, C. 2006. Community forestry in Bhutan: experiences and the way forward. In P. Gyamtsho, B. K. Singh, and G. Rasul, editors. Capitalisation and sharing of experiences on the interaction between forest policies and land use patterns in Asia: linking people with resources. International Centre for Integrated Mountain Development, Kathmandu, Nepal.
- Tshering, L. 2020. State of the nation 2020. National Assembly of Bhutan, Thimphu, Bhutan. https://www.nab.gov.bt/assets/uploads/images/news/2020/State_of_the_Nation_2020.pdf
- Tsheten, T., P. Tenzin, A. C. A. Clements, D. J. Gray, L. Ugyel, and K. Wangdi. 2022. The COVID-19 vaccination campaign in Bhutan: strategy and enablers. *Infectious Diseases of Poverty* 11:6. <https://doi.org/10.1186/s40249-021-00929-x>
- Tshokey, T., J. Choden, K. Dorjee, P. Pempa, P. Yangzom, W. Gyeltshen, S. Wangchuk, T. Dorji, and D. Wangmo. 2021a. Limited secondary transmission of the novel coronavirus (SARS-CoV-2) by asymptomatic and mild COVID-19 patients in Bhutan. *American Journal of Tropical Medicine and Hygiene* 104 (2):490-495. <https://doi.org/10.4269/ajtmh.20-0672>
- Tshokey, T., C. Lhamu, P. Chuki, T. Pelzang, K. Gyeltshen, D. Tshering, A. Gurung, P. Wangchuk, and P. Norbu. 2021b. Twenty months into the pandemic: no SARS-CoV-2 infections among health care workers managing Covid-19 cases in Bhutan. *Asia Pacific Journal of Public Health* 34(2-3):247-248. <https://doi.org/10.1177/10105395211062788>
- Tucker, M. E., and D. R. Williams. 1997. Buddhism and ecology: the interconnection of dharma and deeds. Harvard University Press, Cambridge, Massachusetts, USA.
- Ura, K. 2001. Deities and environment: a four part series. Kuensel, 26 November.
- Verma, R., and K. Wangmo. 2020. Bhutan's foresighted resilience in the initial period of the Covid-19 pandemic: through the lens of gross national happiness. *Journal of Bhutan Studies* 42:1-43.
- Walker, B., S. R. Carpenter, C. Folke, L. Gunderson, G. D. Peterson, M. Scheffer, M. Schoon, and F. R. Westley. 2020. Navigating the chaos of an unfolding global cycle. *Ecology and Society* 25(4):23. <https://doi.org/10.5751/ES-12072-250423>

Wangchuk, R. 2020. Religious ceremony to contain the spread of Covid-19. KuenselOnline, 20 August. <https://kuenselonline.com/religious-ceremony-to-contain-the-spread-of-covid-19/>

Wangchuk, S. 2001. Local resource management institutions: a case study on Sokshing management. *Journal of Bhutan Studies* 3(1):1-44.

Wangdi, S., N. Norbu, S. Wangchuk, and K. Thinley. 2014. Social restriction in traditional forest management systems, and its implications for biodiversity conservation in Bhutan. *Proceedings of BES: The Journal of the Bhutan Ecological Society* 1:112-122.

Warren, K. J. 2000. *Ecofeminist philosophy: a Western perspective on what it is and why it matters*. Rowman and Littlefield, Lanham, Maryland, USA.

Whitecross, R. W. 2004. The Thrimzhung Chenmo and the emergence of the contemporary Bhutanese legal system. Pages 355-378 in K. Ura and S. Kinga, editors. *The spider and the piglet*. Centre for Bhutan Studies, Thimphu, Bhutan.

Whyte, K. P., and C. Cuomo. 2016. Ethics of caring in environmental ethics: Indigenous and feminist philosophies. Pages 234–247 in S. M. Gardiner and A. Thompson, editors. *Oxford handbook of environmental ethics*. Oxford University Press, New York, New York, USA. <https://doi.org/10.1093/oxfordhb/9780199941339.013.22>

World Health Organization (WHO). 2020. “Invest in preparedness” - health emergency readiness lessons from Bhutan. <https://www.who.int/news-room/feature-stories/detail/invest-in-preparedness-health-emergency-readiness-lessons-from-bhutan>