

Research, part of a Special Feature on <u>Challenges to Understanding and Managing Cultural Ecosystem Services (CES) in the</u> <u>Global South</u>

"People should also look after the people": relational values of wildlife and collectively titled land in Ilkisongo Maasai group ranches in Southern Kenya

Ryan Unks^{1,2,3}, Mara J. Goldman^{4,5,6}, François Mialhe¹ and Joana Roque de Pinho^{6,7}

ABSTRACT. Categorically distinct instrumental values and non-instrumental "cultural" values of "nature" are central to ecosystem services assessments and many wildlife conservation interventions alike. However, this approach to understanding the value of nature is at odds with social scientific understandings that see value as produced through social-ecological relations and processes. With a case study of Ilkisongo Maasai land users living in group ranches surrounding Amboseli National Park in southern Kenya, we apply a relational values approach to highlight the processes of valuation that shape how different people within Maasai society come to have different shared values of wildlife and collectively titled land. First, we detail how wildlife conservation efforts in Amboseli have affected social relations through uneven conservation decision-making processes and unequal distribution of benefits from conservation. Second, we detail how conservation practices have directly influenced changing relationships between people and wildlife. Neglect of elders' common stances on how relations "ought" to be maintained (both human-human and human-nonhuman relations), and many Maasai residents' views of the "ownership" of wildlife by a minority have both fueled resentment. We show that an ironic, unintended outcome is that conservation projects, which are intended to increase the "value" of wildlife for local people as a way to foster "coexistence" of people and wildlife on collectively titled lands, are instead contributing to an increased desire by some Maasai for wildlife to be spatially separated from people and livestock. Simultaneously, current conservation projects do not build upon practices that in Maasai views, enabled historical sharing of land with wildlife. Inequality and lack of participation have been highlighted as key limitations of many community-based conservation and human-wildlife conflict mitigation initiatives. We instead focus on how wildlife conservation interventions have contributed to changing human-human and human-nonhuman relations and have in turn impacted long-term Maasai perceptions of wildlife. We argue that an expanded consideration of relational values that emphasizes the inseparability of culture and nature, but also includes a central consideration of power dynamics, might overcome some limitations of previous valuation approaches.

Key Words: conservation; ecosystem services; Kenya; relational values; wildlife

INTRODUCTION

The ecosystem services (ES) concept has increasingly been used to address the value of benefits of "nature" to humans in environmental management and conservation interventions (Costanza et al. 1997, Daily 1997, MEA 2005, Kumar 2010. However, critical reviews have found ES approaches to frequently be ecologically reductionistic (Norgaard 2010, Petersen 2010). Social scientific critiques additionally suggest that ES assessments perpetuate a cultural-natural dichotomy (Lele et al. 2013), mask the politics of decision-making processes (Dempsey and Robertson 2012, Barnaud and Antona 2014, Berbés-Blázquez et al. 2016), and can lead to unintended and undesirable outcomes (Kull et al. 2015; see also Kinzig et al. 2011, Martín-López 2014). As a distinct type of ES, cultural ecosystem services (CES) have been proposed as an umbrella term to represent the immaterial benefits that people gain from nature (MEA 2005). However, material-immaterial, and natural-cultural dichotomies that are inherent to ES/CES approaches have been critiqued as representing a hegemonic Western worldview (Hirons et al. 2016, Muraca 2016), whereas authors focusing on nature's contribution to people emphasize the importance of "culture" and Indigenous knowledge in all aspects of human-nonhuman relations in global environmental and biodiversity conservation initiatives (e.g., Díaz et al. 2015).

Relational values approaches have been advocated as a way to foster more pluralistic valuation processes (Muraca 2016) and to expand beyond limited CES framings to incorporate diverse, noneconomic/utilitarian ways of valuing nature (Fish et al. 2016, Arias-Arévalo 2017, Himes and Muraca 2018, Gould et al. 2019). Relational values approaches move beyond the values attached to "things" and consider values that derive from webs of relationships and responsibilities (Chan et al. 2016). Chan et al. (2016:1462) defines these as the "preferences, principles and virtues associated with relationships, both interpersonal and as articulated by policies and social norms." Relational values focus on the ways in which both individuals and collectives form values through various relations with nature (Chan et al. 2016, 2018, Muraca 2016, Himes and Muraca 2018, Stålhammar and Thorén 2019). As such, a relational values framework has the potential to incorporate a broader understanding of value and a wider diversity of human-nonhuman relations into conservation approaches. Doing the latter has long been argued for by conservation social scientists, if in different ways (Sandbrook et al. 2013, Bennett et al. 2017).

We highlight the potential of this alternative approach to valuation of nature through a case study of wildlife conservation interventions in *Ilkisongo* Maasai-owned and managed lands surrounding Amboseli National Park (ANP) in Kenya. The

¹University of Lyon, Lumière Lyon 2, Department of Geography, France, ²National Socio-Environmental Synthesis Center, University of Maryland, ³Post-doctoral Affiliate, PASTRES Programme, Institute of Development Studies, University of Sussex, Brighton, UK, ⁴Department of Geography, University of Colorado-Boulder, Boulder, Colorado, ⁵Institute for Behavioral Science, University of Colorado-Boulder, ⁶Centro de Estudos Internacionais (CEI), Instituto Universitário de Lisboa (ISCTE-IUL), Portugal, ⁷Institute for Social Research in Africa (IFSRA), Ouagadougou, Burkina Faso

Amboseli area is rich in mammalian diversity and its wildlife populations rely on patchy resources that stretch across both ANP and the surrounding collectively titled Maasai land (Western et al. 2009a). These lands, and other areas occupied primarily by pastoralists outside of national parks, have long been recognized for sustaining the highest densities of wildlife in Kenya (Western et al. 2009b). Persistent calls over the years for wildlife conservation interventions to involve local communities through so called community-based conservation (CBC; Western 1994) have paralleled national policies of delegation of authority over wildlife management to non-governmental organizations (NGOs) and private entities outside of national parks (Little 2014). These policies have dovetailed with an agenda of expansion of wildlife conservation beyond official state-run protected areas. Community-based conservation approaches have been initiated by different non-governmental actors in the Amboseli area over the years, all with the stated goal of making conservation attractive to local communities and thus securing their support for wildlife conservation. They have done so by encouraging people who interact with wildlife on a daily basis to associate economic values with wildlife, and thereby be vested in their protection (Western 1982, 1994, 1997), as large-scale shifts in land management and livelihoods have occurred in the past decades across the greater Amboseli ecosystem (Campbell 1999, BurnSilver 2009). In support of this approach, a recent comparative analysis of Kenyan Maa-speaking pastoralists/agropastoralists, including the Amboseli area, concluded that "intolerance of wildlife is growing with a transition to more sedentary livelihoods, growing land pressures, market economies, and new values and sensibilities" (Western et al. 2019:214). This echoes previous arguments that "traditional values" of wildlife are being lost and need to be offset by new values, such as instrumental benefits from wildlife (Western et al. 2015). However, other research from the same area addressing a wider range of social, ecological, and political changes, including conservation discourse and policies, elucidates how Maasai in Amboseli have gone from embracing people, livestock, and wildlife "staying together," toward a desire for wildlife to be spatially separated from people and livestock (Roque de Pinho 2009). In other words, this research suggests that changing values of wild animals are related to fundamental changes in both human-human and human-nonhuman relations, and that a more pluralistic assessment of how people who live with wildlife come to value them is needed to understand these transformations.

There is an extensive literature addressing the role of powerful non-state actors in community-based governance reforms (e.g., Brosius et al. 1998, Agrawal and Gibson 1999, Adams and Hulme 2001, Brosius et al. 2005, Blaikie 2006, Sullivan 2006, Garland 2008, Ribot et al. 2010, Homewood et al. 2012, Mbaria and Ogada 2016) and neoliberal trends in conservation that prioritize market valuation (Igoe and Brockington 2007, Castree 2008, Bakker 2009). Although we see this literature as highly relevant to this discussion, we focus on the ways in which value is "produced" through hybrid forms of CBC governance. We asked: how do current local conservation projects and the values of nature they emphasize interact with and contribute to changing Maasai value systems in the Amboseli context?

We consider how changes in relationships among people that underpin the ways people perceive both wildlife and collective land use are affected by a complex interplay of shifting norms of reciprocity and conservation interventions by state and non-state actors in Amboseli. Our analysis highlights how changes in local perceptions of wildlife and land, as well as the outcomes of conservation projects, are related to changes in human-human relations, human-wildlife relations, and violations of Maasai expectations of how to mediate these relations with respect (enkanyit). We discuss how conservation interventions, by trying to influence values of nature, have had an impact on Maasai social relations and human-nonhuman relations, and have thus unintentionally negatively influenced conservation outcomes. We illustrate this by showing contrasting processes of valuation of wildlife and collectively titled land found within Maasai communities in Amboseli at the time of writing: one among Maasai who are directly involved with and benefit from wildlife conservation, and one among Maasai who are often at odds with wildlife conservation. Our case study provides empirical support for the potential of relational values approaches to foster a pluralistic, dynamic, non-essentialist conceptualization of the role of culture in shaping values of nature. We argue that an expanded relational values approach should explicitly consider diverse ways of knowing and being in the world, and at the same time, consider underappreciated social processes including a constant awareness of uneven power relations in conservation settings (West 2005, 2006, Blaser 2009, Sullivan 2009, Velásquez Runk 2009).

Cultural ecosystem services (CES) and relational values

Making wildlife "compete" economically with agricultural land uses and attempting to off-set the costs to local land users of sharing their land with wildlife in hopes of reducing so-called human-wildlife conflicts have long been primary objectives of conservation practice in Kenya (Emerton 1998, Bulte et al. 2008, Okello et al. 2014). Additionally, monetary valuation of nature is often a key element of many conservation projects and the overall ES framework. However, a primary focus on economic valuation can exclude important socio-cultural and political concerns of local populations whose support conservation projects are often trying to enlist (Lele et al. 2013). For example, monetary valuation often de-emphasizes questions of socioeconomic inequality, noneconomic ways of valuing nature, and changes in collective land use practices (Kallis et al. 2013). In recent efforts to expand beyond the instrumental aspects common to ES approaches that are amenable to monetization (i.e., provisioning, supporting, regulating services), CES approaches have increasingly been used to address intrinsic values of nature (Hirons et al. 2016). However, numerous criticisms have been levelled at CES, including that it promotes material-immaterial and natural-cultural dichotomies (Lele et al. 2013, Hirons et al. 2016). Additionally, when considering how culture shapes the ways in which people interact with and value nature, focusing only on specific types of cultural values can lead to ethnocentric approaches to valuation (Milcu et al. 2013, Hirons et al. 2016) such as when the focus is on recreational and scenic ES, which may not be part of local ways of engaging with nature (Pascua 2017, Stålhammar and Pedersen 2017). Furthermore, cultural values frequently overlap with both instrumental and intrinsic values and are thus difficult to disentangle from other sets of values associated with ES (Chan et al. 2012). However, the complex and multiple ways that culture shapes human relations with nature is often ignored or minimally addressed in most CES approaches (Chan and Satterfield 2016).

Chan et al. (2016) called for a rethinking of ES by considering values that are derived from people's relationships with and responsibilities to nature instead of values present in things. Their relational values approach considers both individual and collective relational values that are both conceptually distinct from instrumental and intrinsic values but also co-constitute them (Chan et al. 2016, Himes and Muraca 2018). This approach brings attention to social relations and considers culture as dynamic and constituted by overlapping domains of traditions, customs, values, norms, principles, identities, preferences, and visions (Gould et al. 2015, Chan et al. 2016, Fish et al. 2016, Ishihara 2018). This conceptual shift draws into focus the collective, shared meanings that underlie the ways that people in different contexts form values of nature (Himes and Muraca 2018). This also frames caring for nature as closely related to concepts such as fairness, justice, and responsibility (Jax et al. 2018). This focus on relational values of nature in turn moves closer to a dynamic understanding of culture itself as social, relational, and as fundamentally entwined with nature (e.g., see also Ingold 2000).

Himes and Muraca's (2018) relational valuation framework focused on processes of valuation. They argued for an emphasis on how "the world is mediated, influenced, and co-determined by socially shared horizons of meaning that form shared narratives, institutions, norms, and habitualized practices" (Himes and Muraca 2018:2). Distinguishing relational processes of valuation from the "content" of values, i.e., "what is considered important and how this attribution of importance is articulated" (Himes and Muraca 2018:2) emphasizes that values do not exist in the things being valued independently of the social realm and fosters an unpacking of how groups of people in diverse, dynamic, and heterogeneous socio-cultural contexts form shared values (Himes and Muraca 2018). This approach incorporates how changing human-human relations impact local notions such as legitimacy and fairness, and highlights the ways in which sociocultural, political, and moral dimensions are integral to valuation of nature (Himes and Muraca 2018, Saxena et al. 2018). This can lead to more fluid considerations of the relations underlying care for both people and certain aspects of nature (Jax et al. 2018). It can also help to recognize how social outcomes of conservation interventions, such as restriction of people's access to resources or social inequalities in benefits, can shape valuation of nature within a community (Hirons et al. 2016).

Thus, as others have emphasized, considerations of diverse epistemologies and ontologies in human-nonhuman relations should be fundamental to pluralistic concepts of valuation (Bremer 2018, Saxena et al. 2018, Gould et al. 2019) and should include dimensions such as the ways in which notions of personhood are often embedded in webs of relations with nonhumans (Jax et al. 2018). However, as previously pointed out by Saxena et al. (2018), the relational values approach has yet to draw in earnest from anthropological literature that moves beyond multiple ways of knowing the world (epistemology), to take seriously the existence of different ontologies (i.e., "different ways of understanding how reality is constructed," Sullivan 2017:224). The anthropology literature on ontologies is highly varied and a full review is beyond our present scope (see for instance Descola 2013, Holbraad and Pedersen 2017, Velásquez Runk et al. 2019). However, especially relevant to the discussion of the need for pluralistic valuation is the work of critical scholars that has focused on multiple ontologies to highlight how certain understandings of the world can become privileged over others (Blaser 2013, Escobar 2017). This privileging can lead to particular models of conservation (e.g., ones rooted in natureculture dualism) and certain types of values ascribed to nature being promoted (e.g., financial, instrumental use), while other models are ignored (Sullivan 2017).

Feminist science studies scholars have also challenged natureculture dualisms using multi-species ethnography to examine the relational pathways through which humans and nonhumans coproduce each other (Haraway 2003, 2008). This work in turn closely relates to insights from anthropology about how humannonhuman relations can have sweeping implications for social relations (e.g, Li 2014, Tsing 2015), and how new values placed on nature (for instance through conservation practices) can lead to changes both in social relations as well as in how people relate to nature (West 2005, Allen 2018). These insights suggest the need to consider how agendas introduced by powerful actors can override people's choices and their own processes of valuation of nature. These insights also highlight the need for pluralistic valuation processes that take seriously different ways of knowing, being in, and relating to the world. Our approach to understanding changing values draws from and is influenced by these insights.

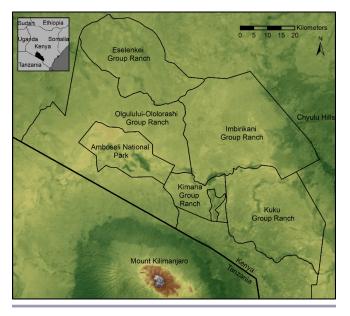
In what follows, we expand upon the relational values approach and illustrate this framework's applicability by considering conservation projects that rely on economic valuation of wildlife and collectively titled land in Amboseli. Prior research in the region has extensively illustrated dimensions of human-wildlife relations and non-economic values that Maasai ascribe to wildlife (Roque de Pinho 2009, Roque de Pinho et al. 2014). We focus on how social, economic, political, and ecological relations among people and between people and animals also underlie Maasai valuations of wildlife in Amboseli. We focus on changing social processes and the overlap between instrumental and noninstrumental values, to show how a relational values approach is useful to understand how changing human-human and humannonhuman relations shape values that people ascribe to both their collectively titled land and the wildlife that live on that land. In doing so, we also illustrate how notions of value of nature can change in unintended ways due to conservation interventions and processes of commodification themselves (see also West 2006, Roque de Pinho 2009, Allen 2018).

Study area

Our research took place in three collectively titled Maasai group ranches (hereafter GRs) surrounding ANP in Kajiado county, southern Kenya: Imbirikani, Eselenkei, and Olgulului-Ololorashi (Fig. 1). These GRs are situated between the Chyulu hills to the east, subdivided former GRs to the north and west, and Tanzania to the south. The climate is semi-arid and rainfall is bimodal, with March-May and November-December rainy seasons and frequent droughts (Altmann 2002).

Important changes have occurred in local Maasai social structure over the past century. Historically, Maasai homesteads included several households, with shared food and labor (Grandin 1991, Spear 1993). Mutual assistance through agnates and among clan relations was key in shaping social norms of reciprocity and respect (enkanyit; Galaty 1981, Grandin 1991, Homewood and Rodgers 1991, Potkanski 1999). Maasai society is stratified by an age-set system (Spencer 1993) in which the ilmurran (a designation of Maasai young men who are responsible for defense and longdistance movements of cattle) often form life-long bonds of mutual assistance (osotua; Grandin 1991). Widespread social changes among Maasai since the colonial era have occurred, such as changes in the influence of women and traditional leaders (Waller 1976, Hodgson 1999), increased inequality and shifts toward more individualistic attitudes about livestock, labor, and land (Galaty 1981, Campbell 1993), increased influence of national political affiliations, and heightened patronage along lines of clans and age-sets (Kituyi 1990, Rutten 1992, Southgate and Hulme 2000). Within GRs, there has also been a shift of power toward elected leaders who act as the point of distribution of benefits from "outside" Maasai society (e.g., national-level politicians), from which they and their closest social relations primarily benefit (Galaty 1981).

Fig. 1. Map of the three group ranches (Imbirikani, Eselenkei, and Olgulului-Ololorashi) studied, Amboseli National Park, and surrounding areas.



Shifting social-ecological relations in Amboseli

Maasai in Kenya and Tanzania are often upheld as traditional custodians of wildlife because they have historically shared land with large wildlife populations (Parkipuny and Berger 1993). However, Maasai relationships with wildlife have transformed over time, having been profoundly impacted by colonial and independent state conservation and land policies (Hughes 2006, Steinhart 2006). Game reserves for wealthy European and American hunters were established throughout Maasai-occupied lands during the colonial era. These reserves excluded Indigenous inhabitants, including Maasai, and established a novel economic value for land characterized as "empty" of people but full of wildlife (Adams and Hutton 2007). Many game reserves were transformed into national parks during the British colonial

regime, then were supported and continued for financial and political benefit by the independent Kenyan state, and endorsed by international conservation organizations (Bonner 1993). The "fortress conservation" model associated with national parks has been widely critiqued for dispossessing local people of their lands, demonizing Indigenous land use practices, and promoting a false dichotomy between nature and society (Neumann 1998, Anderson 2002, Brockington 2002, Brockington and Igoe 2006, Adams and Hutton 2007). Throughout Kenya, the creation of national parks went hand in hand with anti-pastoralist rhetoric that presupposed misuse and destructive land use practices of Maasai and other pastoralists and fueled on-going evictions from national parks and other protected areas (Brockington and Homewood 1999, Hughes 2006). Such exclusionary conservation measures did more than just alienate Maasai from necessary resources inside protected areas, they also had profound implications for the ways Maasai perceived their own relationships with wildlife (Roque de Pinho 2009). Protected areas introduced new patterns of "ownership" of wildlife (Steinhart 2006), which Maasai came to refer to as "cattle of the government" (Kiswahili: ngombe ya sirikali; Western 1997).

Maasai living in and around the area that became ANP historically closely overlapped in their land and resource use with wildlife. During the dry season wildlife and livestock congregated around swamps at the center of the Amboseli basin (now within the core of ANP) and during the wet season they both migrated out of the Amboseli basin to more nutritious pastures now on Maasai collectively titled land (Western 1982, Western and Gichohi 1993). This overlap was partly recognized when Amboseli was established as a tourist destination in the early 1950s, and there was a stated intent by wildlife conservation organizations and international donors to provide benefits to Maasai in the process through tourism concessions (Western and Thresher 1973, Western 1994, 1997). The hope of wildlife conservationists was that Maasai would ultimately become "allies" of conservation and provide security against outsiders illegally hunting species such as elephant for ivory (Western 1997). Amboseli National Park (an area of 392 km²) was gazetted by the state in 1974. Because Maasai were subsequently excluded from the park in 1977, this alienated them from crucial dry season livestock forage and water sources (Campbell 1981). Maasai responded to this expropriation of ANP and the subsequent failure by the Kenya Wildlife Service (KWS) to provide promised water sources outside of the park with highly visible protest killings of wildlife (Knowles and Colett 1989, Western 1982). In response, KWS started providing benefits to local residents such as school bursaries and direct payments to Maasai leadership (Western 1982). This distribution of community benefits and other efforts to include Maasai in conservation such as the use of community scouts to decrease "poaching" and prevent humanwildlife conflict were initially seen as successful according to measures focused on increasing wildlife populations (Western 1982, 1994, Western et al. 2015). However, again, protest killings occurred into the 1990s following continued broken promises about water provisioning (Reid 2012), with wildlife also sporadically killed as a protest in surrounding areas more recently (Goldman et al. 2013).

Efforts to include Maasai in conservation initiatives around ANP were based on an understanding of the ecology of migratory wildlife as requiring seasonal access to areas outside of ANP (Western 1982, 1994). There was also some recognition of the long history of Maasai sharing land with extensive wildlife populations, particularly by the head of KWS at the time, David Western. Today, these areas outside of ANP fall within land designated as Maasai GRs as well as subdivided land at the time of writing. Group ranches were established by the Kenyan State, following a series of interventions that aimed to convert Maasai livelihoods away from semi-nomadic pastoralism and communal land tenure systems toward individualized tenure (i.e., private property), settled agriculture, and commercial livestock production (Waller 2012). These interventions were based on views that Maasai sharing of land and forage resources was leading to land degradation (Rutten 1992, but also see Grandin 1991 and Mwangi 2007). Although their creation was based on pejorative assumptions of the destructive impacts of pastoralism (Western 1982, Homewood and Rodgers 1984, 1991), GRs were seen by some as a protection against land-tenure insecurity (Rutten 1992, Kimani and Pickard 1998).

Despite being designed to support collective land management, GRs have been subject to pressures to subdivide into individual parcels, particularly in places where the land values were high (Rutten 1992). Subdivision (i.e., the division of collectively titled land into individual parcels under private ownership) has occurred in most GRs in Kajiado County at the time of writing for a variety of reasons, including mistrust of GR representatives, concerns about tenure security and land grabs, national agricultural policies, and external pressures to open up land to markets (Galaty 1992, 1994, Rutten 1992, Mwangi 2007). Although upland rangelands in the GRs immediately surrounding ANP have remained mostly unsubdivided until the time of writing, official subdivision processes have now begun for all areas in these GRs. Previously, some Maasai had taken up farming and leased partially subdivided farm plots to non-Maasai within wetlands, in part because of historical restriction from ANP and the exacerbated impacts of recurring droughts (Campbell 1981, Campbell et al. 2000, 2005). Increased farming by Maasai has led to new types of human-wildlife relations, including heightened tensions due to wildlife foraging within farms, and sometimes killings of wildlife in response (Campbell 1981, 1999, Campbell et al. 2000). With farming and individualized tenure (both previously encouraged by national development policies and international organizations) threatening to fragment wildlife habitat, CBC projects have focused on curtailing land use changes that divide open rangelands (Western et al. 2009a). In so doing, pastoralism has been reframed as wildlife-friendly and collectively titled land as essential for keeping wildlife dispersal areas open (Western et al. 2009a).

At the time of writing, there is a complex landscape of national, foreign, for-profit, and non-profit organizations that collaborate on CBC projects surrounding ANP. A key goal of these CBC interventions is to persuade people to find wildlife economically more lucrative than other land uses such as farming. This is further supported by empirical claims that livelihood shifts toward agriculture are the main drivers of increasingly negative views of wildlife by pastoralists in the region (Akama et al. 1995, Gadd 2005, Okello 2005, Western et al. 2019). Efforts to maintain open rangelands (Rutten 2002, Western et al. 2009*a*, Russell et al. 2018) and a philosophy that wildlife should "pay its way" (Western 1994,

1997) have been central to conservation interventions surrounding ANP. In hopes of making conservation more lucrative than farming for local community members, this approach has led to a mosaic of different conservation practices surrounding ANP, including many in which wildlife conservation is primarily incentivized through financial benefits to local residents (e.g., see Osano et al. 2013, Okello et al. 2014, Seid et al. 2016).

The various wildlife conservation initiatives located within GRs that provided financial incentives to GR residents can be grouped into four main types:

- 1. Ecotourism conservancies and associated safari hotels and campsites within GRs: Gamewatchers Safaris (formerly Porini Ecotourism), a high-end (up to 750\$USD per night) ecotourism operator, has leased a 5000-ha conservancy within Eselenkei GR since the late 1990s (see Rutten 2002, Zeppel 2006). A similar ecotourism arrangement occurs on the Imbirikani group ranch where approximately 250 ha are leased to Great Plains Conservation for an ecotourism lodge (prices up to over 1000\$USD per night) named ol Donyo Lodge, that began in 1985. In the past ol Donyo Lodge employed 18 people, while Porini Camp on Eselenkei had 26 full-time employees from the GRs they are located on (Zeppel 2006). Both operators make lease payments directly to GR representatives.
- 2. Conservation organization headquarters: Two conservations organizations, Big Life and Lion Guardians, lease land within Imbirikani and Olgulului-Ololorashi for their headquarters. Both organizations hire local Maasai GR residents, particularly Big Life, formerly Maasailand Preservation Trust, also begun by the founder of ol Donyo Wuas Lodge. Big Life employs approximately 300 individuals as community scouts, rangers, and various other positions and focuses on anti-poaching and prevention of human-wildlife conflict. It has at times had a presence on all three GRs considered, though they are currently not operating on Olgulului-Ololorashi following a recent disagreement between GR representatives and NGO representatives. Both NGOs make direct payments to GR representatives.
- **3.** Conservancies leased within subdivided lands: The International Fund for Animal Welfare (IFAW) leases 16,753 ha within a subdivided portion of Olgulului-Ololorashi as a private conservancy, initially begun by the African Wildlife Foundation in the late 2000s, which provides direct payments of 6000 ksh to individual landowners per year to run a private wildlife conservancy (Mbane et al. 2019). Direct payments are made to GR members (i.e., individuals who are officially registered and are eligible for land titles) who own plots within the conservancy.
- **4.** Compensation schemes: Wildlife conservation NGOs provide monetary payments directly to livestock owners when livestock are killed by predators (Maclennan et al. 2009, Okello et al. 2014). These compensation schemes are sponsored by different ecotourism or conservation projects operating within different GRs at different times, and compensation has occurred inconsistently in some GRs.

Other programs spearheaded by wildlife conservation NGOs (these include Born Free, The African Conservation Center, Amboseli Ecosystem Trust, and others; see Jacquet 2017) include providing "improved" predator exclosure fences (Manoa and Mwaura 2016), fencing of farmed areas to attempt to exclude wildlife (see also Worden et al. 2003 for a history of fencing projects), creating drought "grass banks," and working together with state extension officers to introduce "improved" breeds of bulls, livestock vaccinations, and disease treatments. Additionally, Maasai "traditional" homesteads (cultural manyattas) have been constructed for tourists to visit to see Maasai dances and buy beadwork for sale by women, begun at the behest of NGOs and private tour operators. Big Life, IFAW, and KWS also provide a limited number of educational bursaries. Finally, NGOs have also recently spearheaded the drafting of wildlife-friendly land use plans for GRs.

Historical hunting and eating of wildlife by Maasai during droughts (Steinhart 2006) are often mentioned as reflecting a key past instrumental value for wildlife, thought to be considered as "second cattle" and a source of food during past droughts (Western 1982, 1997). This historical "use" of wildlife is emphasized as a rationale for current projects (Western 1997) to counter how changes in diet, the influence of formal education (Kituyi 1990, Akama et al. 1995), Christianity (Hazzah 2009, Roque de Pinho 2009, Roque de Pinho et al. 2014), and market interactions (BurnSilver 2009) have all had an impact on the views of wildlife within Maasai communities. However, the promotion of instrumental benefits to create positive views of wildlife largely overlooks the values and practices historically underpinning Maasai's relations with wildlife and ongoing changes in these relations. Recognizing the limitations of a singular focus on the instrumental benefits of wildlife, some NGOs, in coordination with KWS, have begun to address some of the social dimensions of wildlife conservation. One common approach includes training community game scouts to reduce human-wildlife conflict (Western et al. 2015). This broader approach resonates with national policy changes as reflected in the Wildlife Act of 2013 that devolves wildlife management to county-level officials and local representatives. Western et al. (2015) acknowledged that prevention of human-wildlife conflict at the national level has operated in less than optimal ways, often focusing more on wildlife than people, and had lacked a detailed understanding of humanwildlife relations. They emphasized the need to further involve "traditional skills," while promoting "collaborative natural resource management" (Western et al. 2015).

One CBC project in the Amboseli area, Lion Guardians, founded in 2007, focuses on Maasai lion hunting and herding practices, to attempt to eliminate lion hunting (Maclennan et al. 2009). Although wildlife hunting was banned completely in Kenya in 1977 (Steinhart 1989), lion hunts by *ilmurran* have continued sporadically. However, these hunts have become less frequent because of strict KWS policies that elders increasingly comply with, growing game scout presence, and predator compensation programs (Goldman et al. 2013, Hazzah et al. 2014). Lion Guardians employs *ilmurran* as scouts to monitor lions, livestock, and to persuade others not to initiate lion hunts, to adopt "care" (*eramatare*) of lions (meant to replace the value created by hunting lions), and to adopt different livestock herding practices that reduce predation and conflict with predators (Frank et al. 2007, Jablonski 2020). Lion Guardians emphasizes the prestige of successful lion hunting as a culturally specific Maasai value. As stated by the founding director, "becoming a Lion Guardian is a rebirth for (the Maasai). They gain even more prestige than they would have from killing a lion" (Dunn 2014). However, other studies have argued that this view is an oversimplification of Maasai relations with lions, which include a complex and dynamic mix of favorable and negative attributes, and suggest a need for a more nuanced view of these cultural dimensions (Goldman et al. 2010, 2013, Roque de Pinho et al. 2014).

Finally, Maasai feelings about wildlife have been shifting over the years in relation to increased social inequality and increasing perception of a lack of legitimacy of CBC projects. Many Maasai see a double standard in the continued exclusion of Maasai herders from dry season access within ANP, while at the same time CBC projects seek to sustain wildlife mobility outside of the park, in their titled lands (Roque de Pinho 2009). Direct financial benefits to individuals on the three GRs are reportedly both small and unevenly distributed, with very few Maasai tour operators, and incomes from conservancies often being controlled by GR representatives and other local elites (Western 1994, Campbell et al. 2000, Rutten 2002, BurnSilver 2009, Roque de Pinho 2009), especially compared to similar projects elsewhere in the region (Thompson and Homewood 2002, Homewood et al. 2012). Additionally, losses of farm produce to wildlife is largely unaddressed by CBC projects aside from fencing projects (Roque de Pinho 2009).

Despite CBC rhetoric recognizing local knowledge as key to CBC success (see Western et al. 2015), CBC in Amboseli has been critiqued for being a largely top-down approach that lacks Maasai participation beyond GR leadership (Little 1994, Rutten 2002, Jacquet 2017). Although these issues are not new and have been discussed extensively in the political ecology and human-wildlife conflict literatures, there is a need to connect the impacts of unequal distribution of benefits and lack of Maasai participation in CBC to changing Maasai views of wildlife in light of historical changes in Maasai society and leadership. However, although concerns of inequality and lack of participation have been emphasized in the political ecology and human-wildlife conflict literatures, we seek to elucidate how wildlife conservation interventions have led to context-specific changes in social relations in the GRs considered and how these, in turn, affect people's relations with wildlife. We analyzed how these changing human and nonhuman relations are part of overall changing relations among both humans and nonhumans that are in turn shaping the values that Maasai ascribe to wildlife and collectively titled land.

METHODS

Our analysis is based on 11 aggregate months of ethnographic field work conducted in 2018 and 2019 by the first author. Interviews were conducted with 132 GR residents (limited to those of Maasai ethnicity because most members of Kamba, Kikuyu, and Luo ethnic groups resided in farming areas or urban centers alone) selected using a stratified sampling approach reflecting (1) high vs. low livestock holdings, (2) livelihood strategies (i.e., a mix of farming, livestock rearing, income as GR officials, employment income, etc.), (3) gender, and (4) clans and age-sets. Interviews were conducted primarily in Maa by hired translators, with several done in Kiswahili and/or English. Interviews were recorded unless requested otherwise. Interviews followed a semi-structured format beginning with general questions on changes in livelihoods in relation to changing socioeconomic and ecological conditions. We also asked questions about the impacts of CBC programs on livelihoods and perceptions of land subdivision. Data collection was supplemented with focus group discussions, informal interviews, and participant observation in Maasai people's homes, population centers, and in meetings. We also conducted unstructured and semi-structured key-informant interviews with wildlife conservation NGO representatives, GR representatives, and Maasai NGO employees, supplemented by informal interviews.

In what follows, we first briefly characterize Maasai perceptions of current conservation interventions in the Amboseli area and the ways in which these interventions intersect with changing Maasai social norms. We then characterize how Maasai relations with wildlife have changed according to Maasai informants. We show that judgements about conservation interventions and wildlife's presence on collectively titled GR land are informed by Maasai notions of how things "ought to be" to sustain respectful relations among people and between people and wildlife. We discuss how the process of valuation through which conservation agencies and GR leadership associate benefits with wildlife and open land contrasts with processes through which most Maasai GR residents produce value together.

KEY FINDINGS

Perceptions of social relations and power dynamics surrounding conservation benefit distribution

All interlocutors in the three GRs were unanimous in saying that the conservation projects, which were initiated at different times and under different circumstances, were widely approved of at the time they began. However, interlocutors also widely indicated that projects were negotiated nearly exclusively by the GR representatives, and that the resulting agreements lacked transparency. Some initially suspicious elders (for a focus on social conflict surrounding negotiation processes in one GR see Rutten 2002) were persuaded to accept these projects by promises of benefits, i.e., prospects of school bursaries, infrastructure construction, compensation for livestock losses to wildlife, employment, income from cultural manyattas, and beadwork sales. On Eselenkei GR, most interlocutors indicated that although agreements with private ecotourism operators had been followed in terms of legal requirements, they should now be renegotiated to produce and share more benefits. Others indicated that although the Eselenkei conservancy provides a sizeable (~6 million ksh/yr) revenue to GR representatives, the agreement had not fulfilled what they expected at the time. Some elders involved in the decision-making process leading to the creation of the Eselenkei conservancy saw it as a betrayal because few of the expected benefits, such as jobs and bursaries, had materialized. Informants from all GRs repeatedly emphasized that the main benefits of conservation materialized only for those who gained employment or bursaries, with few widespread benefits aside from small payments made to individuals as part of NGO-leased conservancies. In particular, a small number of women are employed, and together with younger men, many women indicated that distribution of employment and bursaries is highly subject to nepotism as well as clientelism.

As reported elsewhere, interlocutors indicated that the failure of GR representatives to make decisions with GR residents' interests in mind explains why many GR members favor subdivision of GRs (Unks et al. unpublished manuscript). Funds from conservation revenue are the main source of income available to GRs. According to many interlocutors, three GR representatives (chairman, secretary, treasurer) are widely considered to appropriate much of these funds on all ranches, as also evidenced by those leaders' increased livestock and land holdings since occupying these positions. The GR representatives we interviewed, on the other hand, regularly defended conservation projects for their potential to promote formal education and eradicate poverty. When pressed about GR residents' widespread dissatisfaction about lack of benefits, representatives stressed that jobs do currently lead to wider benefits that spread to employees' families and friends. The GR representatives indicated that a key pressure applied to them by GR residents is the need to provide jobs and distribute them evenly, and that they do their best to do SO.

Perceptions of changing decision-making processes

According to Maasai custom, decision making occurs in long meetings (*enkiguena*) in which a consensus needs to be reached. For interlocutors, at the time of writing, meetings have come to be dominated by GR representatives and wealthy Maasai, more selective in attendance, and increasingly influenced by external actors (i.e., politicians and NGO representatives). People nearly unanimously complained of improper consultation by and deliberation with GR representatives. As a result, negotiations around GR matters are seen as lacking transparency and primarily benefitting GR representatives and other powerful Maasai. Regarding conservation projects and their benefits, interlocutors spoke of three major trends in decision-making processes that have generated GR residents' opposition to conservation projects.

Limited discussion of land management plans

Land management plans were intended to affect all GR members yet were reportedly designed primarily by conservation NGO representatives and advocated for by GR representatives. These deliberations excluded wide GR member participation by being held in trade-center towns with conservation NGO representatives and GR representatives being the main attendees. The land management plans produced as a result of these meetings were then promoted among GR residents by the GR representatives. Although many interlocutors remarked that they agreed with some aspects of these plans, they rejected them at least in part because they had been created in private settings and were thus suspected to contain a hidden agenda reflecting the exclusive interests of GR representatives and conservation NGOs. For other interlocutors, the land use plans were interpreted as outright land grabs in which livestock forage access would become restricted in areas designated as wildlife corridors (see also Goldman 2011, Galaty 2013 for discussion of historical land grabs in the region and their relation to conservation), even though NGO and GR representatives alike claimed that such designations were only suggestions. One GR representative remarked that he himself did not understand why these plans were discussed in exclusive meetings rather than in public.

Suspicion of meetings in which conservancies leased by NGOs were discussed

On Olgulului-Ololorashi GR, which includes subdivided areas where aggregated individual plots are leased to a conservation organization, many interlocutors reported that individual land owners had not been informed of the lease agreement terms and that meetings had been manipulated by GR representatives to make the GR members appear to have reached a consensus about the lease conditions. Some members specifically indicated they favored abolishment of the GR committee and full subdivision of the GR because this would enable household heads to negotiate conservancy leases directly with NGOs, rather than leases being negotiated by GR representatives.

Socially stratified exclusion from CBC deliberations

Recent changes across Maasai communities including proliferation of women's groups, church groups, and increased access to cash through beadwork sales and horticultural labor, have all led to a growing influence of women in decision-making processes at the household and neighborhood levels. Women have begun pooling financial and labor resources to expand networks of mutual assistance, which has strengthened their political voice and influence over decisions on water allocation, provision of school bursaries, alcohol sales, and school policies. These changes have in turn led to much more influence over household decision making, especially regarding the education of children, including girls. However, women have never held governing positions in any of the three GRs and are regularly excluded from financial and land use discussions at the GR level, including widows, who are household heads, and thus registered GR members. At annual general meetings in which GR finances are discussed and representatives selected, although some women would speak, especially those who are local government representatives, most women would not, fearing repercussions (including violence), or are often spoken over by men (see also Goldman and Little 2015 for analysis of similar processes among Maasai in Tanzania). Multiple women also stressed that men refused to elect female GR representatives, fearing their influence over finances, land uses, bursary distribution, wildlife, and distribution of conservation benefits. However, many women and men alike explained that women's support is informally required for various decisions to pass. Some women had begun to ally with youth (current *ilmurran*, < 30 y/o), and had contributed to the rejection of two land use plans and GR representative plans to lease land for sand harvesting in recent years. Although GR representatives are most commonly senior elder men; junior elder men who are members of the youngest married age-set (Ilkiponi ~30-46 y/o) could also be GR representatives. These junior elders, together with senior *ilmurran* were particularly active in organizing in important ways, gaining a growing presence on GR committees. Interviewed men of these age-sets (current ilmurran and junior elders of the Ilkiponi age set) who were excluded from these decision-making processes, on the contrary, were very likely to complain that there were no GR budgets or constitutions and frequent mismanagement of funds and thus to advocate for transparency regarding financial issues, employee selection processes, and school bursary allocation processes.

Changing relations with wildlife

In addition to changes happening within Maasai communities, many interlocutors indicated changing relationships with the wildlife with which they share land and resources, something they often attributed to conservation practices. As noted by others (Campbell 1999, Roque de Pinho 2009), Maasai in Amboseli generally believe that wild animals such as elephants and lions have become more dangerous and aggressive toward people and livestock as a result of decreased lion hunting and spearing of other aggressive animals, as well as the delimitation of protected areas/areas for exclusive wildlife use. Men and women, and youth and elders alike, indicated in interviews that lions and hyenas, in particular, no longer fear people and increasingly attack livestock and herders. Elephants are also perceived as having become more aggressive, sometimes killing people, chasing people going for water (especially women), coming closer to homes than in the past, and also damaging wells (see also Roque de Pinho 2009).

In the past, lion hunting was considered by Maasasi to be a part of "maintaining relations" with lions based on mutual respect and reciprocity (see Roque de Pinho 2009, Goldman et al. 2010). Some elders drew direct parallels between the "murder" fine that Maasai men used to pay after killing someone in a fight and the way that Maasai killing of wild animals that attacked their interests helped to maintain respectful relations between animals and people in the past. One elder explained in depth how these relations with wildlife had fundamentally changed at the time of study:

There wasn't much conflict between us and the animals because when a lion eats a cow it is that one lion that is killed, and it goes for a long time without the livestock being eaten again. Back then we were living together all of us elephants and rhinos here. It is only the day that the animal faults that it is killed...Back then if an elephant killed a person, it would be more than ten years before you heard of it again...it is only the day we fight that we have a conflict, but any other time we live together, and that is why they are here... if you kill someone in the past, there is a year you are supposed to pay, then we forget that thing so that people can have peace again. It is now that an elephant can kill someone and it can stay for fifty years and they have not paid...there is not even a single day that these incidents don't occur, but in the past we knew how to live together.

In emphasizing how relations with wildlife have changed, many interlocutors contrasted the monetary penalties imposed by KWS on Maasai for killing an elephant with the low amounts paid as compensation to families when they lost a relative in an elephant attack. Many emphasized a double standard in government and NGO responses to these events. As one interlocutor explained: "Whenever they [wild animals] damage humans you don't see anyone, but when they [wild animals] are killed you see someone [from conservation NGOs/KWS] here immediately."

This sentiment was echoed by many others alike. One elder indicated how most people are not necessarily opposed to wildlife conservation, but there is an unmet dimension of "care" in project agreements: "We are not saying now all that [conservation] work should be removed, but we are saying people should also look after the people."

This imbalance was viewed by many as a violation of Maasai respectful norms (expressed as *meishaakino*, i.e., "unfitting" or

not proper, or *menarikino*, i.e., not what "ought" to be) by KWS, conservation NGO representatives, and Maasai conservation organization employees. This has led to a widespread sentiment that the government, wildlife organizations, and employees alike value wildlife more than humans, as illustrated in the following elder's statement: "Those employed protect wildlife so much but neglect the people, they should be equal, they should care for human."

Increasing emphasis on spatial separation of humans and wildlife There was a strong sentiment among GR residents that wildlife conservation benefits were unequally distributed. The perception that only a few people "own" wildlife was commonly associated with disparities in benefits. Wildlife conservation organizations, tourist lodge operators, GR representatives, and the government were regularly said to be the main beneficiaries of wildlife. This divide was also linked to Maasai employees of conservation NGOs that are perceived as understandably benefitting their families first, but also of not representing the interests of other community members in their employment activities. When we interviewed such conservation employees, they reported social tensions and lack of trust between themselves and communities, along with accusations of informing on community activities related to wildlife, and of perpetuating a system of "unsuitable" treatment.

Informants also spoke of growing inequalities as related to changing herding practices. Whereas past collective herding practices discouraged predators, at the time of writing, many families faced shortages of herding labor especially when ilmurran are in school and they cannot afford to hire herders. As a result, livestock are often left unguarded while foraging and are more susceptible to predation. Many families also lack the labor needed to build and maintain fences and guard livestock at night. Similar patterns were commonly indicated by interlocutors from farming families who are faced with crop damage by gazelles, zebra, monkeys, buffalo, and elephants due to a lack of labor for guarding the fields. Many also framed as unfair how some wildlife species migrate from ANP onto GR land, while people and livestock do not have access to either ANP or the conservancies within the GRs. Some interlocutors mentioned being told that tourists do not want to see livestock, or as one elder explained: "We are told livestock and wildlife cannot live together; if we graze there the wildlife will leave."

As previously shown by Roque de Pinho (2009), some Maasai also now desire spatial separation from wildlife. We found these sentiments to be extremely common during the present study, as expressed in the following words from an elder: "We have this boundary for the conservancy but not an agreement for wild animals not to cross...it makes everywhere like a conservancy...it is a good thing to do the conservation within the conservancy."

Some also explicitly explained that they wanted GR subdivision as a way to make wildlife stay in "their place": "[subdivision] will also reduce wildlife; everyone will be living everywhere; wildlife will shift back to their designated area [i.e., ANP and conservancies]."

This wish for spatial separation of wildlife and people was often discussed as a way to resolve issues of "unfit" or inappropriate outcomes and unequal "ownership" of and benefit from animals. As one elder explained: "KWS benefits from [the] conservancy, and GR leaders benefit, but GR members do not benefit. How will we live together then peacefully? Where would the problem be if we are all benefitting from this wildlife?"

Informants also referred to competition between livestock and wildlife for forage as one of the "unsuitable" outcomes: areas within GRs provide forage for wildlife outside of ANP, whereas the park (and conservancies) deny people and livestock access to forage and sometimes to water within ANP.

Perceptions of "unsuitable" outcomes also tainted local views of predator compensation schemes for livestock losses to predators. Many GR residents complained about the long time it takes to receive compensation for any domestic animal killed by a predator, e.g.: "When told a cow is killed, they should be compensated immediately, but it actually takes months."

Also, interlocutors expressed complaints about the sliding scale for compensation, which is based on an evaluation, by the managers of the compensation projects, of cattle enclosure fencing and the circumstances under which livestock were killed (see Okello 2014) but does not consider how different families do not have the same means (material and labor) to defend their herds against predators. Compensation amounts are thus often perceived as unacceptably low and as reflecting a lack of respect (*enkanyit*), especially when accompanied by criticism of fencing or herding practices. Finally, interlocutors pointed out that compensation for crop damage by wildlife is not considered under current compensation policies.

DISCUSSION

Relational basis of perceptions of instrumental benefits of conservation

Maintaining open rangelands is seen as essential to the long-term maintenance of both livestock-based livelihoods and biodiversity conservation surrounding ANP (Western et al. 2009a). Conservation projects throughout the Amboseli area are intended to keep land open for wildlife and to gain "allies" of conservation among Maasai. However, as illustrated above, attempts to encourage Maasai to perceive wildlife as economically beneficial have not produced the anticipated outcomes, namely support for conservation and for keeping rangelands open. By relying primarily on instrumental values of wildlife, conservation projects have largely neglected important aspects of how changing humanhuman and human-wildlife relations are shaping some Maasai perceptions of both wildlife and the land they share it with. Unequal distribution of benefits was identified as a barrier to the success of conservation interventions in this area nearly a decade ago (BurnSilver 2009, Roque de Pinho 2009). Our findings indicate that inequality in benefit distribution continues to shape how people perceive wildlife and land management today. However, although this finding in itself is not surprising, to explain these shifting perceptions, it is vital to consider how unequal distribution of benefits is compounded by limited participation in conservation-related decision making and a growing mistrust of GR representatives who act as intermediaries between conservation organizations and GR residents.

Limited participation in decision making regarding communitywide conservation projects led by NGOs and GR representatives

whose decisions are not seen to represent a consensus, has led to growing concerns among community members about the legitimacy of these projects. These decision-making processes are at odds with Maasai traditions of dialogue that create shared meaning and values (Goldman 2020). This in turn is leading to negative views of wildlife and how decisions are made about collectively titled land. Women are particularly affected because they are the most excluded from decision-making processes and receive the least financial benefits, yet they are disproportionately exposed to dangerous wildlife and loss of income through wildlife damage to farm produce. It is therefore not surprising that women, together with younger males who are also excluded from decisionmaking processes, have formed a growing opposition to conservation projects and are often the most outspoken about their negative views of wildlife such as elephants. However, we are not suggesting that these negative views of wildlife can be explained as only a direct result of the lack of participation or receipt of equal dividends from conservation. We see the views as connected to the larger shifts over time that have come to disproportionately benefit a few leaders financially in the name of wildlife conservation, while others seek new opportunities (i.e., farming) that are commonly seen as at odds with wildlife conservation. Although inequality no doubt existed among Maasai prior to conservation interventions, conservation projects have exacerbated social divisions, not only between leaders and residents, but among those employed by conservation projects and those who see no benefits from them. Conservation projects promote the need to keep land collectively managed (and undivided). However, not all residents benefit equally from the projects and from keeping land collectively titled. This unequal relationship challenges many Maasai views of the way social relations and relations with land "ought" to be, subsequently leading to changes in how people view the land they share with each other and wildlife.

It is also important to consider changing human-nonhuman relations in understanding why CBC projects are not producing intended effects on people's values of wildlife. Relations between people and wildlife are intertwined with local norms of respect and the way that Maasai feel things "ought" to be. Community-based conservation endeavors have not only overlooked people's own past strategies for navigating relations with wildlife (see also Goldman et al. 2013), they are not addressing current relations with wildlife and why they are changing. For Maasai, wildlife is not something "out there," but beings they interact and construct reality with, and with whom they have developed ways of being in the world together. An exclusive focus on making sure that wildlife have "value" (even non-economic, culturally specific values attributed to wildlife) thus overlooks the impacts of changing animals' behavior and perceptions of "ownership" of wildlife that underpin how people think about their relations with wildlife. Current GR representatives, conservation NGO representatives, and conservation NGO employees are seen as exclusively profiting from "their" wildlife, and in turn disproportionately benefitting from community lands that "their" wildlife move freely through. Although some Maasai are not opposed to "caring" for wildlife (eramatare oo ilngwesi; see also Roque de Pinho 2009), they see the "owners" of wildlife (e.g., conservation agencies, Maasai employees, and GR representatives) as neglecting how "they ought to care" for people. For instance, most GR residents experience negative impacts of wildlife, although the resources and labor needed to defend livestock and farms vary among households. At the same time, historical conservation interventions (such as the prohibition of hunting) are blamed for changing behaviors of wildlife (e.g., making them bolder and less afraid of people). In other words, conservation interventions are perceived as limiting people's ability to mediate relationships with wildlife. A good example of this disjunction is monetary compensation schemes for livestock losses to predators, promoted as a benefit of conservation (Okello et al. 2014). Maasai view the schemes as both unjust and inadequate to account for the compound impacts of increased pressure of wildlife on their livestock and changing norms of reciprocity in herding labor that can lead to differences in susceptibility to predation among households. Therefore, when assessing these programs, many conclude that the conservation benefits are not what they "ought" to be.

Although projects that aim to influence people's values of nature tend to either focus on benefits gained (instrumental) or other non-instrumental benefits (e.g., aesthetic, spiritual, social, etc.), the relational view of values emphasizes that these values clearly overlap. This overlap is illustrated in our case study in which social relations, as well as relations with nonhumans, impact the way that many Maasai view and associate material values with wildlife, but also land, in instrumental and non-instrumental ways. Conservation NGO representatives sometimes emphasize culturally specific instrumental values that they ascribe to Maasai, such as the prestige of hunting lions, or value of wildlife as "second cattle" that provided instrumental benefits historically (Western et al. 2015). However, this limited, static consideration of culture and value systems starkly contrasts with the relational processes through which many Maasai ascribe value to wildlife, that is, by evaluating the fairness of conservation benefit distribution, decision-making processes, and how norms of respect between humans and wildlife are enforced. This limited approach to valuation and culture also overlooks important noninstrumental dimensions, such as the immaterial values of wildlife and cattle that are only understood through embodied, dynamic relations between people and animals (Roque de Pinho 2009).

Contrasting processes of valuation

The above dynamics are particularly important to consider because at the time of writing, a consensus had been reached to subdivide land in all three GRs. We connect our findings to the above analysis of relational dimensions of value to distinguish ways that many Maasai articulate their views in relation to conversations about valuation of wildlife and collectively titled land. We contrast the process of valuation (Himes and Muraca 2018) through which Maasai GR representatives and conservation organizations have formed shared values of wildlife and land that are at odds with the shared values of many other Maasai GR residents.

The instrumental values of wildlife and collectively titled land emphasized in conservation projects reflect the values that result from exclusive relational processes involving GR representatives and conservationists. In negotiating the conditions of CBC projects, conservation NGO representatives primarily engage with local communities through elected/appointed representatives and often justify this practice as a way to stay out of "politics" (see Jacquet 2017). However, NGO representatives build and maintain close relationships with GR representatives: as an example, the Imbirikani GR representatives' office is located within a conservation organizations' headquarters and several representatives are employed or highly involved in conservation NGOs. Alliances between these groups are also visible in the direct flow of financial revenue to GR representatives and the exclusive processes of negotiation between GR representatives and conservation NGO representatives, rather than with the larger community. Alliances with GR representatives in turn promise reliable support for conservation projects on GR land. Conservation organizations emphasize providing economic benefits because they create a clear, pragmatic strategy for them and their donors, but they also align, in part, with common demands for tangible benefits (e.g., jobs, bursaries, infrastructure, and health care) by GR representatives. Maasai GR residents also commonly, if not universally, indicate they expect to receive economic benefits from conservation, especially jobs and funds for education. Group ranch representatives in turn promise widespread economic benefits to their constituencies while conservation projects provide funds to GR representatives that are intended for the development of public services on GRs and to provide direct monetary benefits to individuals through salaries, bursaries, and direct lease payments. At the same time, group ranch representatives reassure conservation actors that their constituencies are benefitting from conservation and that they will help them to make successful land use management interventions.

In contrast, the process through which GR representatives and NGO representatives come to form shared values of land and wildlife is at odds with the processes through which many Maasai have formed shared values of wildlife and collectively titled land. Most Maasai GR residents, although expecting economic benefits, can be seen as creating shared values of wildlife through a very different process; one that emphasizes how things "ought" to be done if respectful human-human and human-nonhuman relations are to be sustained. After years of unequal distribution of benefits, the materialization of long-promised benefits, such as employment and school bursaries, increasingly seem unlikely to many Maasai. For NGO representatives, their conservation projects clearly produce value that will be positively associated with wildlife, but on the contrary, many Maasai see CBC projects as being associated with unfulfilled promises and perpetuating unjust and "unsuitable" relations both among people and between people and wildlife. This then results in increasingly less favorable attitudes toward sharing GR land with wildlife and contradicts the ethic of "staying together with wild animals" (Roque de Pinho 2009). Therefore, and somewhat paradoxically, although conservation organizations increasingly recognize the overlap of mobile pastoralism and associated open rangelands with extensive wildlife populations and thus as a basis for wildlife conservation success, the processes of valuation promoted by GR representatives and NGO representatives to foster "coexistence" have instead reinforced Maasai views that wildlife should "stay in their place" (i.e., areas such as national parks and conservancies) rather than live on people's land where they produce benefits only for others (i.e., GR representatives, KWS, conservation NGOs, tourists, and even researchers). This shift away from thinking about sharing land should not be viewed as necessary or permanent, however, it should be understood that a direct consequence of the way that conservation projects have been implemented.

CONCLUSIONS

The current approach to conservation in Maasai group ranches in Amboseli closely parallels dominant ES/CES approaches that emphasize instrumental and intrinsic values of "nature out there" as the key for fostering human-nonhuman "coexistence." Using a qualitative, ethnographic, relational values approach and an exploration of the (changing) processes of valuation of nature (Himes and Muraca 2018), we addressed dimensions that are typically not considered in ES/CES. Our case study highlights how values are formed through dynamic, heterogeneous, contextspecific social relations that are inseparable from relations with nonhumans. In particular, our case study shows how both natural and cultural dimensions mutually constitute instrumental domains that are often conceptually distinguished in ES/CES.

Despite widespread recognition of the need for participation of local communities in conservation decision making and the recognition of local strategies for navigating relations with wildlife (see Western et al. 2015), CBC interventions around ANP have largely neglected how many Maasai view wildlife following decades of conservation interventions. As non-Maasai scholars, we do not claim this study to represent the full spectrum of individual and collective, instrumental and intrinsic values that Maasai hold, or to speak for their ways of being in the world. However, our findings emphasize that a long history of political marginalization, uneven power dynamics, and land alienation connected to conservation interventions are all inseparable from many Maasai's perceptions about the way things "ought" to be, how human and nonhuman lives are entangled, and how people, not just wildlife, need to be cared for too.

Our analysis of how conservation interventions are shaping both human and human-wildlife relations reveals that through attempts to encourage positive attitudes toward wildlife in Maasai communities, conservation interventions in Amboseli have ironically exacerbated negative views of both wildlife and collective management of land among Maasai. Inequality in the distribution of benefits from wildlife, changes in decision-making processes, and changing local perceptions of human-nonhuman relations are key factors that shape the way in which many Maasai living around ANP interpret the economic and non-economic values of wildlife and collectively titled land put forward by conservation actors and agencies. The current valuation approach in Amboseli relies on new social ties and new social divisions; it is founded on the views of a minority of Maasai and conservation actors, who through their relations have produced new values together. However, these values are both deepening social divisions and reinforcing a widespread desire among resident Maasai for separation from wildlife. Many Maasai in Amboseli view conservation interventions as having privatized wildlife primarily for the benefit of a few people. At the same time, many Maasai view these interventions as limiting their former shared norms of relations with wildlife, in turn leading to increasingly negative impacts on their livelihoods. In other words, the processes through which interventions have sought to establish new types of shared values of wildlife and land have overlooked Maasai ways of being in the world and violated notions of the way things "ought" to be.

Our research points to important challenges for the future of CBC projects in Amboseli, but also to opportunities for a different model of conservation. Our findings highlight the need for

qualitative valuation approaches that focus on how humanhuman relations and human-nonhuman relations co-constitute both instrumental and intrinsic values of nature. Relational ontologies have long been emphasized in Indigenous thought and scholarship, prior to their more recent prominence in the social sciences (see Todd 2016). However, multiple ways of knowing, being, and relating to nature are rarely considered in either applied wildlife valuation or standard ES/CES applications. Our research suggests the need to look for explanations for conservation outcomes not just in inequality of distribution of benefits and lack of participation, but also in how conservation practices and the social relations surrounding them can privilege certain kinds of values over others. Our findings suggest a need to move toward a model of valuation that is rooted in an understanding of how value is always produced through social relations between people with diverse ways of knowing and being in the world. Perhaps a more reflexive, pluralistic appreciation of the complexities of local differentiation, power imbalances, and ways of being in the world could be more fluidly incorporated into nature valuation models using an expanded relational values framework.

Responses to this article can be read online at: <u>https://www.ecologyandsociety.org/issues/responses.</u> <u>php/12539</u>

Acknowledgments:

We express deepest gratitude to the people of Imbirikani, Eselenkei, and Olgulului-Ololorashi for generously sharing their time and knowledge, teaching us about their lives, and for welcoming us into their homes. The first author claims responsibility for any mistakes or misrepresentations that have occurred. This work would not have been possible without the assistance in translation, guidance, and companionship of Charles Ntimama Mutunkei, Richard Solonka ole Supeet, and Sakimba Kennedy Kimiti. The manuscript benefitted greatly from the comments of two anonymous reviewers, as well as Pamela McElwee, Daniel J. Read, and Emily Y. Horton. We acknowledge the French Agence Nationale de la Recherche (ANR) for supporting the research program ANR-16-CE03-0004 MaGNUM. This research was permitted by the Republic of Kenya's National Commission for Science, Technology and Innovation (permit no: NACOSTII/P/19/8312/30903).

Data Availability:

Datalcode sharing not applicable - no new datalcode generated

LITERATURE CITED

Adams, W. M., and D. Hulme. 2001. If community conservation is the answer in Africa, what is the question? Oryx 35(3):193-200. https://doi.org/10.1017/s0030605300031847

Adams, W. M., and J. Hutton. 2007. People, parks and poverty: political ecology and biodiversity conservation. Conservation and Society 5(2):147-183.

Agrawal, A., and C. C. Gibson. 1999. Enchantment and disenchantment: the role of community in natural resource conservation. World Development 27(4):629-649. <u>https://doi.org/10.1016/S0305-750X(98)00161-2</u>

Akama, J. S., C. L. Lant, and G. W. Burnett. 1995. Conflicting attitudes toward state wildlife conservation programs in Kenya. Society and Natural Resources 8(2):133-144. <u>https://doi.org/10.1080/08941929509380907</u>

Allen, K. 2018. Why exchange values are not environmental values: explaining the problem with neoliberal conservation. Conservation and Society 16(3):243-256. <u>https://doi.org/10.4103/cs.cs_17_68</u>

Altmann, J., S. C. Alberts, S. A. Altmann, and S. B. Roy. 2002. Dramatic change in local climate patterns in the Amboseli basin, Kenya. African Journal of Ecology 40(3):248-251. <u>https://doi.org/10.1046/j.1365-2028.2002.00366.x</u>

Anderson, D. 2002. Eroding the commons: the politics of ecology in Baringo, Kenya, 1890s-1963. Ohio University Press, Athens, Ohio, USA.

Arias-Arévalo, P., B. Martín-López, and E. Gómez-Baggethun. 2017. Exploring intrinsic, instrumental, and relational values for sustainable management of social-ecological systems. Ecology and Society 22(4):43. <u>https://doi.org/10.5751/ES-09812-220443</u>

Bakker, K. 2009. Neoliberal nature, ecological fixes, and the pitfalls of comparative research. Environment and Planning A: Economy and Space 41(8):1781-1787. <u>https://doi.org/10.1068/a4277</u>

Barnaud, C., and M. Antona. 2014. Deconstructing ecosystem services: uncertainties and controversies around a socially constructed concept. Geoforum 56:113-123. <u>https://doi.org/10.1016/j.geoforum.2014.07.003</u>

Bennett, N. J., R. Roth, S. C. Klain, K. Chan, P. Christie, D. A. Clark, G. Cullman, D. Curran, T. J. Durbin, G. Epstein, A. Greenberg, M. P. Nelson, J. Sandlos, R. Stedman, T. L. Teel, R. Thomas, D. Veríssimo, and C. Wyborn. 2017. Conservation social science: understanding and integrating human dimensions to improve conservation. Biological Conservation 205:93-108. https://doi.org/10.1016/j.biocon.2016.10.006

Berbés-Blázquez, M., J. A. González, and U. Pascua. 2016. Towards an ecosystem services approach that addresses social power relations. Current Opinion in Environmental Sustainability 19:134-143. https://doi.org/10.1016/j.cosust.2016.02.003

Blaikie, P. 2006. Is small really beautiful? Community-based natural resource management in Malawi and Botswana. World Development 34(11):1942-1957. <u>https://doi.org/10.1016/j.worlddev.2005.11.023</u>

Blaser, M. 2009. Political ontology: cultural studies without 'cultures'?. Cultural Studies 23(5-6):873-896. <u>https://doi.org/10.1080/09502380903208023</u>

Blaser, M. 2013. Ontological conflicts and the stories of peoples in spite of Europe: toward a conversation on political ontology. Current Anthropology 54(5):547-568. <u>https://doi.org/10.1086/672270</u> Bonner, R. 1993. At the hand of man: peril and hope for Africa's wildlife. Alfred Knopf, New York, New York, USA.

Bremer, L. L., K. A. Brauman, S. Nelson, K. M. Prado, E. Wilburn, and A. C. O. Fiorini. 2018. Relational values in evaluations of upstream social outcomes of watershed Payment for Ecosystem Services: a review. Current Opinion in Environmental Sustainability 35:116-123. <u>https://doi.org/10.1016/j.cosust.2018.10.024</u>

Brockington, D. D. 2002. Fortress conservation: the preservation of the Mkomazi Game Reserve, Tanzania. Indiana University Press, Bloomington, Indiana, USA.

Brockington, D., and K. Homewood. 1999. Pastoralism around Mkomazi Game Reserve: the interaction of conservation and development. Pages 513-530 in M. Coe, N. McWilliam, G. Stone, and M. Packer, editors. Mkomazi: the ecology, biodiversity, and conservation of a Tanzanian savanna. Royal Geographical Society (with the Institute of British Geographers), London, UK.

Brockington, D., and J. Igoe. 2006. Eviction for conservation: a global overview. Conservation and Society 4(3):424-470.

Brosius, J. P., A. L. Tsing, and C. Zerner. 1998. Representing communities: histories and politics of community-based natural resource management. Society and Natural Resources 11 (2):157-168. https://doi.org/10.1080/08941929809381069

Brosius, P. J., A. L. Tsing, and C. Zerner, editors. 2005. Communities and conservation: histories and politics of community-based natural resource management. AltaMira, Walnut Creek, California, USA.

Bulte, E. H., R. B. Boone, R. Stringer, and P. K. Thornton. 2008. Elephants or onions? Paying for nature in Amboseli, Kenya. Environment and Development Economics 13(3):395-414. https://doi.org/10.1017/S1355770X08004312

BurnSilver, S. B. 2009. Pathways of continuity and change: Maasai livelihoods in Amboseli, Kajiado District, Kenya. Pages 161-207 in K. Homewood, P. Kristjanson, and P. C. Trench, editors. Staying Maasai? Livelihoods, conservation and development in East African rangelands. Springer, New York, New York, USA. https://doi.org/10.1007/978-0-387-87492-0_5

Campbell, D. J. 1981. Kajiado District. Pages 212-242 in D. J. Campbell, and S. E. Migot-Adholla, editors. The development of Kenya's semi-arid lands. Occasional Paper No. 36. Institute for Development Studies, Nairobi, Kenya. [online] URL: <u>https://opendocs.ids.ac.uk/opendocs/handle/20.500.12413/805</u>

Campbell, D. J. 1993. Land as Ours, Land as Mine, in Being Maasai: Ethnicity and Identity in East Africa, Thomas Spear and Richard Waller (eds). Oxford: James Currey, pp. 258-72. <u>https://doi.org/10.2307/1160800</u>

Campbell, D. J. 1999. Response to drought among farmers and herders in southern Kajiado District, Kenya: a comparison of 1972-1976 and 1994-1995. Human Ecology 27(3):377-416. https://doi.org/10.1007/BF01531283

Campbell, D. J., H. Gichohi, A. Mwangi, and L. Chege. 2000. Land use conflict in Kajiado District, Kenya. Land Use Policy 17 (4):337-348. <u>https://doi.org/10.1016/S0264-8377(00)00038-7</u> Campbell, D. J., D. P. Lusch, T. A. Smucker, and E. E. Wangui. 2005. Multiple methods in the study of driving forces of land use and land cover change: a case study of SE Kajiado District, Kenya. Human Ecology 33(6):763-794. <u>https://doi.org/10.1007/s10745-005-8210-y</u>

Castree, N. 2008. Neoliberalising nature: the logics of deregulation and reregulation. Environment and Planning A: Economy and Space 40(1):131-152. <u>https://doi.org/10.1068/a3999</u>

Chan, K. M. A., P. Balvanera, K. Benessaiah, M. Chapman, S. Díaz, E. Gómez-Baggethun, R. Gould, N. Hannahs, K. Jax, S. Klain, G. W. Luck, B. Martín-López, B. Muraca, B. Norton, K. Ott, U. Pascual, T. Satterfield, M. Tadaki, J. Taggart, and N. Turner. 2016. Opinion: why protect nature? Rethinking values and the environment. Proceedings of the National Academy of Sciences 113(6):1462-1465. https://doi.org/10.1073/pnas.1525002113

Chan, K. M. A., R. K. Gould, and U. Pascual. 2018. Editorial overview: relational values: what are they, and what's the fuss about? Current Opinion in Environmental Sustainability 35:A1-A7. https://doi.org/10.1016/j.cosust.2018.11.003

Chan, K. M. A., A. D. Guerry, P. Balvanera, S. Klain, T. Satterfield, X. Basurto, A. Bostrom, R. Chuenpagdee, R. Gould, B. S. Halpern, N. Hannahs, J. Levine, B. Norton, M. Ruckelshaus, R. Russell, J. Tam, and U. Woodside. 2012. Where are cultural and social in ecosystem services? A framework for constructive engagement. BioScience 62(8):744-756. <u>https://doi.org/10.1525/bio.2012.62.8.7</u>

Chan K. M. A., and T. Satterfield. 2016. Managing cultural ecosystem services for sustainability. Pages 343-358 in M. Potschin, R. Haines-Young, R. Fish, and R. K. Turner. Routledge handbook of ecosystem services. Routledge, London, ULK https://doi.org/10.4324/9781315775302-30

Costanza, R., J. H. Cumberland, H. Daly, R. Goodland, R. B. Norgaard, I. Kubiszewski, and C. Franco. 2014. An introduction to ecological economics. CRC Press, Boca Raton, Florida, USA. https://doi.org/10.1201/b17829

Daily, G. C. 1997. Nature's services: societal dependence on natural ecosystems. Island, Washington, D.C., USA.

Dempsey, J., and M. M. Robertson. 2012. Ecosystem services: tensions, impurities, and points of engagement within neoliberalism. Progress in Human Geography 36(6):758-779. https://doi.org/10.1177/0309132512437076

Descola, P. 2013. Beyond nature and culture. University of Chicago Press. Chicago, Illinois, USA.

Díaz, S., S. Demissew, J. Carabias, C. Joly, M. Lonsdale, N. Ash, A. Larigauderie, J.R. Adhikari, S. Arico, A. Báldi, A. Bartuska, I. A. Baste, A. Bilgin, E. Brondizio, K. M. A. Chan, V. E. Figueroan, A. Duraiappah, M. Fischer, R. Hill, T. Koetz, P. Leadley, P. Lyver, G. B. Martin-Lopez, M. Okumura, D. Pacheco, U. Pascual, E. S. Pérez, B. Reyers, E. Roth, O. Saito, R. J. Scholes, N. Sharma, H. Tallis, R. Thaman, R. Watson, T.Yahara, Z. A. Hamid, C. Akosim, Y. Al-Hafedh, R. Allahverdiyev, E. Amankwah, S. T. Asah, Z. Asfaw, G. Bartus, L. A. Brooks, J. Caillaux, G. Dalle, D. Darnaedi, A. Driver, G. Erpul, P. EscobarEyzaguirre, P. Failler, A. M. M. Fouda, B. Fu, H. Gundimeda, S. Hashimoto, F. Homer, S. Lavorel, G. Lichtenstein, W. A. Mala, W. Mandivenyi, P. Matczak, C. Mbizvo, M. Mehrdadi, J. P. Metzger, J. B. Mikissa, H. Moller, H. A. Mooney, P. Mumby, H. Nagendra, C. Nesshover, A. A. Oteng-Yeboah, G. Pataki, M. RouÓ, J. Rubis, M. Schultz, P. Smith, R. Sumaila, K. Takeuchi, S. Thomas, M. Verma, Y. Yeo-Chang, and D. Zlatanova. The IPBES conceptual framework — connecting nature and people. 2015. Current Opinion in Environmental Sustainability 14:1-16. https://doi.org/10.1016/j.cosust.2014.11.002

Dunn, M. 2014. Transforming lion killers into 'Lion Guardians'. CNN, 17 December. [online] URL: <u>https://www.cnn.</u> com/2014/07/24/world/cnnheroes-hazzah/index.html

Emerton, L. 1998. The nature of benefits and the benefits of nature: why wildlife conservation has not economically benefitted communities in Africa. Community conservation research in Africa (Paper no. 5). Institute for Development Policy and Management, University of Manchester, Manchester, UK.

Escobar, A. 2017. Sustaining the pluriverse: the political ontology of territorial struggles in Latin America. Pages 237-256 in M. Brightman and J. Lewis, editors. The anthropology of sustainability. Palgrave Studies in Anthropology of Sustainability. Palgrave Macmillan, New York, New York, USA. <u>https://doi.org/10.1057/978-1-137-56636-2_14</u>

Fish, R., A. Church, and M. Winter. 2016. Conceptualising cultural ecosystem services: a novel framework for research and critical engagement. Ecosystem Services 21:208-217. <u>https://doi.org/10.1016/j.ecoser.2016.09.002</u>

Frank, L., A. Cotterill, S. Dolrenty, S. Ekwanga, L. Hazzah, A. Howard, and S. Maclennan. 2007. Living With Lions: annual report, 15. Living with Lions, Nanyuki, Kenya.

Gadd, M. E. 2005. Conservation outside of parks: attitudes of local people in Laikipia, Kenya. Environmental Conservation 32 (1):50-63. <u>https://doi.org/10.1017/S0376892905001918</u>

Galaty, J. G. 1981. Land and livestock among Kenyan Maasai. Symbolic perspectives on pastoral exchange, social change and inequality. Journal of Asian and African Studies 16:68-88. <u>https:// doi.org/10.1177/002190968101600106</u>

Galaty J. G. 1992. "The land is yours": social and economic factors in the privatization, sub-division and sale of Maasai ranches. Nomadic Peoples 30:26-40.

Galaty J. G. 1994. Ha(l)ving land in common: the subdivision of Maasai group ranches in Kenya. Nomadic Peoples 34/35:109-122.

Galaty, J. G. 2013. Land grabbing in the Eastern African rangelands. Pages 143-154 in A. Catley, J. Lind, and I. Scoones, editors. Pastoralism and development in Africa: dynamic change at the margins. Routledge, London, UK.

Garland, E. 2008. The elephant in the room: confronting the colonial character of wildlife conservation in Africa. African Studies Review 51(3):51-74. https://doi.org/10.1353/arw.0.0095

Goldman, M. J. 2011. Strangers in their own land: Maasai and wildlife conservation in Northern Tanzania. Conservation and Society 9(1):65-79.

Goldman, M. J. 2020. Narrating nature: wildlife conservation and Maasai ways of knowing. University of Arizona Press, Tuscon, Arizona, USA. <u>https://doi.org/10.2307/j.ctv179h215</u>

Goldman, M. J., and J. S. Little. 2015. Innovative grassroots NGOS and the complex processes of women's empowerment: an empirical investigation from Northern Tanzania. World Development 66:762-777. https://doi.org/10.1016/j.worlddev.2014.09.005

Goldman, M. J., J. Roque De Pinho, and J. Perry. 2010. Maintaining complex relations with large cats: Maasai and lions in Kenya and Tanzania. Human Dimensions of Wildlife 15 (5):332-346. https://doi.org/10.1080/10871209.2010.506671

Goldman, M. J., J. Roque De Pinho, and J. Perry. 2013. Beyond ritual and economics: Maasai lion hunting and conservation politics. Oryx 47(4):490-500. https://doi.org/10.1017/S0030605312000907

Gould, R. K., S. C. Klain, N. M. Ardoin, T. Satterfield, U. Woodside, N. Hannahs, G. C. Daly, and K. M. Chan. 2015. A protocol for eliciting nonmaterial values through a cultural ecosystem services frame. Conservation Biology 29(2):575-586. https://doi.org/10.1111/cobi.12407

Gould, R. K., M. Pai, B. Muraca, and K. M. A. Chan. 2019. He 'ike 'ana ia i ka pono (it is a recognizing of the right thing): how one indigenous worldview informs relational values and social values. Sustainability Science 14:1213–1232. <u>https://doi.org/10.1007/s11625-019-00721-9</u>

Grandin, B. E. 1991. The Maasai: socio-historical context and group ranches Maasai herding: an analysis of the livestock production system of Maasai pastoralists in Eastern Kajiado District, Kenya. ILCA, Addis Ababa, Ethiopia.

Haraway, D. J. 2003. The companion species manifesto: dogs, people, and significant otherness. Prickly Paradigm, Chicago, Illinois, USA.

Haraway, D. J. 2007. When species meet. University of Minnesota Press, Minneapolis, Minnesota, USA.

Hazzah, L. N. 2006. Living among lions (*Panthera leo*): coexistence or killing? Community attitudes towards conservation initiatives and the motivation behind lion killing in Kenyan Maasailand. Thesis. University of Wisconsin-Madison, Madison, Wisconsin, USA. [online] URL: <u>http://www.livingwithlions.org/MScThesis_LeelaHazzah_new.pdf</u>

Hazzah, L., S. Dolrenry, L. Naughton, C. T. T. Edwards, O. Mwebi, F. Kearney, and L. Frank. 2014. Efficacy of two lion conservation programs in Maasailand, Kenya. Conservation Biology 28(3):851-860. <u>https://doi.org/10.1111/cobi.12244</u>

Hazzah, L., M. B. Mulder, and L. Frank. 2009. Lions and warriors: social factors underlying declining African lion populations and the effect of incentive-based management in Kenya. Biological Conservation 142(11):2428-2437. <u>https://doi.org/10.1016/j.biocon.2009.06.006</u>

Himes, A., and B. Muraca. 2018. Relational values: the key to pluralistic valuation of ecosystem services. Current Opinion in Environmental Sustainability 35:1-7. <u>https://doi.org/10.1016/j.cosust.2018.09.005</u>

Hirons, M., C. Comberti, and R. Dunford. 2016. Valuing cultural ecosystem services, Annual Review of Environment and Services 41:545-574. <u>https://doi.org/10.1146/annurev-environ-110615-085831</u>

Hodgson, D. L. 1999. Women as children: culture, political economy, and gender inequality among Kisonko Maasai. Nomadic Peoples 3(2):115-130. <u>https://doi.org/10.3167/0822794-99782409451</u>

Holbraad, M., and M. A. Pedersen. 2017. The ontological turn: an anthropological exposition. Cambridge University Press, Cambridge, UK. <u>https://doi.org/10.1017/9781316218907</u>

Homewood, K. M., and W. A. Rodgers. 1984. Pastoralism and conservation. Human Ecology 12(4):431-441.

Homewood, K. M., and W. A. Rodgers. 1991. Maasailand ecology: pastoralist development and wildlife conservation in Ngorongoro, Tanzania. Cambridge University Press, Cambridge, UK. https://doi.org/10.1017/CBO9780511525568

Homewood, K. M., P. C. Trench, and D. Brockington. 2012. Pastoralist livelihoods and wildlife revenues in East Africa: a case for coexistence? Pastoralism: Research, Policy and Practice 2 (1):19. <u>https://doi.org/10.1186/2041-7136-2-19</u>

Hughes, L. 2006. Moving the Maasai: a colonial misadventure. Palgrave Macmillan, New York, New York, USA.

Igoe, J., and D. Brockington. 2007. Neoliberal conservation: a brief introduction. Conservation and Society 5(4):432-449.

Ingold, T. 2000. The perception of the environment: essays on livelihood, dwelling and skill. Routledge, Abingdon, Oxon, UK. https://doi.org/10.4324/9780203466025

Ishihara, H. 2018. Relational values from a cultural valuation perspective: how can sociology contribute to the evaluation of ecosystem services? Current Opinion in Environmental Sustainability 35:61-68. https://doi.org/10.1016/j.cosust.2018.10.016

Jablonski, K. E., J. Merishi, S. Dolrenry, and L. Hazzah. 2020. Ecological doctors in Maasailand: identifying herding best practices to improve livestock management and reduce carnivore conflict. Frontiers in Sustainable Food Systems 4:118. <u>https://doi.org/10.3389/fsufs.2020.00118</u>

Jacquet, J. 2017. Les organisations environnementales dans la savane: favorisent-elles la résilience dans le socio-écosystème d'Amboseli au Kenya? Thesis. Université Lumière Lyon 2, Lyon, France.

Jax, K., M. Calestani, K. M. A. Chan, U. Eser, H. Keune, B. Muraca, L. O'Brien, T. Potthast, L. Voget-Kleschin, and H. Wittmer. 2018. Caring for nature matters: a relational approach for understanding nature's contributions to human well-being. Current Opinion in Environmental Sustainability 35:22-29. https://doi.org/10.1016/j.cosust.2018.10.009

Kallis, G., E. Gómez-Baggethun, and C. Zografos. 2013. To value or not to value? That is not the question. Ecological Economics 94:97-105. <u>https://doi.org/10.1016/j.ecolecon.2013.07.002</u>

Kimani, K., and J. Pickard. 1998. Recent trends and implications of group ranch sub-division and fragmentation in Kajiado District, Kenya. Geographical Journal 164:202-213. <u>https://doi.org/10.2307/3060370</u>

Kinzig, A. P., C. Perrings, F. S. Chapin, III, S. Polasky, V. K. Smith, D. Tilman, and B. L. Turner, II. 2011. Paying for ecosystem services—promise and peril. Science 334(6056):603-604. <u>https://doi.org/10.1126/science.1210297</u>

Kituyi, M. 1990. Becoming Kenyans: socio-economic transformation of the pastoral Maasai. African Centre for Technology Studies, Nairobi, Kenya.

Knowles, J. N., and D. P. Collett. 1989. Nature as myth, symbol and action: notes towards a historical understanding of development and conservation in Kenyan Maasailand. Africa 59 (4):433-460. <u>https://doi.org/10.2307/1159941</u>

Kull, C. A., X. Arnauld de Sartre, and M. Castro-Larrañaga. 2015. The political ecology of ecosystem services. Geoforum 61:122-134. <u>https://doi.org/10.1016/j.geoforum.2015.03.004</u>

Kumar, P. 2010. The economics of ecosystems and biodiversity: ecological and economic foundations. Routledge, London, UK. https://doi.org/10.4324/9781849775489

Lele, S., O. Springate-Baginski, R. Lakerveld, D. Deb, and P. Dash. 2013. Ecosystem services: origins, contributions, pitfalls, and alternatives. Conservation and Society 11(4):343-358.

Li, T. M. 2014. Land's end: capitalist relations on an Indigenous frontier. Duke University Press, Durham, North Carolina, USA.

Little, P. 1994. The link between local participation and improved conservation: a review of issues and experiences. Pages 347-372 in D. Western, D. and M. A. Wright, editors. Natural connections: perspectives in community-based conservation. Island, Washington, D.C., USA.

Little, P. D. 2014. Economic and political reform in Africa : anthropological perspectives. Indiana University Press, Bloomington, Indiana, USA.

Maclennan, S. D., R. J. Groom, D. W. Macdonald, and L. G. Frank. 2009. Evaluation of a compensation scheme to bring about pastoralist tolerance of lions. Biological Conservation 142 (11):2419-2427. https://doi.org/10.1016/j.biocon.2008.12.003

Manoa, D. O., and F. Mwaura. 2016. Predator-proof bomas as a tool in mitigating human-predator conflict in Loitokitok Sub-County Amboseli Region of Kenya. Natural Resources 7:28-39. https://doi.org/10.4236/nr.2016.71003

Martín-López, B., E. Gómez-Baggethun, M. García-Llorente, and C. Montes. 2014. Trade-offs across value-domains in ecosystem services assessment. Ecological Indicators 37:220-228. https://doi.org/10.1016/j.ecolind.2013.03.003

Mbane, J. O., R. M. Chira, and E. M. Mwangi. 2019. Impact of land use and tenure changes on the Kitenden wildlife corridor, Amboseli Ecosystem, Kenya. African Journal of Ecology 57 (3):335-343. <u>https://doi.org/10.1111/aje.12611</u>

Mbaria, J., and M. Ogada. 2016. The big conservation lie: the untold story of wildlife conservation in Kenya. Lens and Pens Publishing.

Milcu, A. I., J. Hanspach, D. Abson, and J. Fischer. 2013. Cultural ecosystem services: a literature review and prospects for future research. Ecology and Society 18(3):44 <u>https://doi.org/10.5751/</u> ES-05790-180344 Millennium Ecosystem Assessment (MEA). 2005. Ecosystems and human well-being: synthesis. Island, Washington, D.C., USA. [online] URL: <u>https://www.millenniumassessment.org/</u> <u>documents/document.356.aspx.pdf</u>

Muraca, B. 2016. Relational values: a whiteheadian alternative for environmental philosophy and global environmental justice. Balkan Journal of Philosophy 8(1):19-38. <u>https://doi.org/10.5840/bjp2016813</u>

Mwangi, E. 2007. The puzzle of group ranch subdivision in Kenya's Maasailand. Development and Change 38(5):889-910. https://doi.org/10.1111/j.1467-7660.2007.00438.x

Neumann, R. P. 1998. Imposing wilderness: struggles over livelihood and nature preservation in Africa. University of California Press, Berkeley, California, USA.

Norgaard, R. B. 2010. Ecosystem services: from eye-opening metaphor to complexity blinder. Ecological Economics 69 (6):1219-1227. https://doi.org/10.1016/j.ecolecon.2009.11.009

Okello, M. M. 2005. Land use changes and human-wildlife conflicts in the Amboseli Area, Kenya. Human Dimensions of Wildlife 10(1):19-28. <u>https://doi.org/10.1080/10871200590904851</u>

Okello, M. M., R. Bonham, and T. Hill. 2014. The pattern and cost of carnivore predation on livestock in Maasai homesteads of Amboseli ecosystem, Kenya: insights from a carnivore compensation programme. International Journal of Biodiversity and Conservation 6(7):502-521. https://doi.org/10.5897/ijbc2014.0678

Osano, P. M., M. Y. Said, J. de Leeuw, S. S. Moiko, D. O. Kaelo, S. Schomers, R. Birner, and J. O. Ogutu. 2013. Pastoralism and ecosystem-based adaptation in Kenyan Masailand. International Journal of Climate Change Strategies and Management 5 (2):198-214. https://doi.org/10.1108/17568691311327596

Parkipuny, M. L. O., and D. J. Berger. 1993. Maasai rangelands: links between social justice and wildlife conservation. Pages 113-131 in D. Lewis and N. Carter, editors. Voices from Africa: local perspectives on conservation. World Wildlife Fund, Washington, D.C., USA.

Pascua, P. A., H. McMillen, T. Ticktin, M. Vaughan, and K. B. Winter. 2017. Beyond services: a process and framework to incorporate cultural, genealogical, place-based, and indigenous relationships in ecosystem service assessments. Ecosystem Services 26:465-475. https://doi.org/10.1016/j.ecoser.2017.03.012

Peterson, M. J., D. M. Hall, A. M. Feldpausch-Parker, and T. R. Peterson. 2010. Obscuring ecosystem function with application of the ecosystem services concept. Conservation Biology 24 (1):113-119. <u>https://doi.org/10.1111/j.1523-1739.2009.01305.x</u>

Potkanski, T. 1999. Mutual assistance among the Ngorongoro Maasai. Pages 199-217 in D. M. Anderson and V. Broch-Due, editors. The poor are not us. James Currey, Oxford, UK.

Reid, R. S. 2012. Savannas of our birth: people, wildlife, and change in East Africa. University of California Press, Berkeley, California, USA. <u>https://doi.org/10.1525/9780520954076</u>

Ribot, J. C., J. F. Lund, and T. Treue. 2010. Democratic decentralization in sub-Saharan Africa: its contribution to forest

management, livelihoods, and enfranchisement. Environmental Conservation 37(1):35-44. https://doi.org/10.1017/S0376892910000329

Roque de Pinho, J. 2009. 'Staying together': people-wildlife relationships in a pastoral society in transition, Amboseli ecosystem, southern Kenya. Dissertation. Colorado State University, Fort Collins, Colorado, USA.

Roque de Pinho, J., C. Grilo, R. B. Boone, K. A. Galvin, and J. G. Snodgrass. 2014. Influence of aesthetic appreciation of wildlife species on attitudes towards their conservation in Kenyan agropastoralist communities. PLoS ONE 9(2):e88842. <u>https://doi.org/10.1371/journal.pone.0088842</u>

Russell, S., P. Tyrrell, and D. Western. 2018. Seasonal interactions of pastoralists and wildlife in relation to pasture in an African savanna ecosystem. Journal of Arid Environments 154:70-81. https://doi.org/10.1016/j.jaridenv.2018.03.007

Rutten, M. M. E. M. 1992. Selling wealth to buy poverty : the process of the individualization of landownership among the Maasai pastoralists of Kajiado District, Kenya, 1890-1990. Dissertation. Catholic University of Nijmegen, Nijmegen, The Netherlands.

Rutten, M. 2002. Parks beyond parks: genuine community-based wildlife eco-tourism or just another loss of land for Maasai pastoralists in Kenya? International Institute for Environment and Development, London, UK.

Sandbrook, C., W. M. Adams, B. Büscher, and B. Vira. 2013. Social research and biodiversity conservation. Conservation Biology 27(6):1487-1490. <u>https://doi.org/10.1111/cobi.12141</u>

Saxena, A. K., D. Chatti, K. Overstreet, and M. R. Dove. 2018. From moral ecology to diverse ontologies: relational values in human ecological research, past and present. Current Opinion in Environmental Sustainability 35:54-60. <u>https://doi.org/10.1016/j.</u> cosust.2018.10.021

Seid, M. A., N. J. Kuhn, and T. Z. Fikre. 2016. The role of pastoralism in regulating ecosystem services. Revue scientifique et technique (International Office of Epizootics), 35(2):435-444. https://doi.org/10.20506/rst.35.2.2534

Southgate, C., and D. Hulme. 2000. Uncommon property the scramble for wetland in Southern Kenya. Pages 73-118 in P. Woodhouse, H. Bernstein, and D. Hulme, editors. African enclosures? The social dynamics of wetlands in drylands. James Currey, London, UK.

Spear, T. 1993. Introduction. Pages 1-18 in T. Spear and R. Waller, editors. Being Maasai: ethnicity and identity in East Africa. nJames Currey, London, UK.

Spencer, P. 1993. Becoming Maasai, being in time. Pages 140-156 in T. Spear and R. Waller, editors. Being Maasai: ethnicity and identity in East Africa, James Currey, London, UK.

Stålhammar S, and E. Pedersen. 2017. Recreational cultural ecosystem services: how do people describe the value? Ecosystem Services 26:1-9 <u>https://doi.org/10.1016/j.ecoser.2017.05.010</u>

Stålhammar, S., and H. Thorén. 2019. Three perspectives on relational values of nature. Sustainability Science 14:1201-1222. https://doi.org/10.1007/s11625-019-00718-4 Steinhart, E. I. 1989. Hunters, poachers and gamekeepers: towards a social history of hunting in colonial Kenya. Journal of African History 30(2):247-264. https://doi.org/10.1017/S0021853700024129

Steinhart, E. I. 2006. Black poachers, white hunters: a social history of hunting in colonial Kenya. James Currey, London, UK.

Sullivan, S. 2006. Elephant in the room? Problematising 'new' (neoliberal) biodiversity conservation. Forum for Development Studies 33(1):105-135. <u>https://doi.org/10.1080/08039410.2006.9666337</u>

Sullivan, S. 2009. Green capitalism, and the cultural poverty of constructing nature as service-provider. Radical Anthropology 3:18-27. [online] URL: <u>https://core.ac.uk/download/pdf/9630316.</u> pdf

Sullivan, S. 2017. What's ontology got to do with it? On nature and knowledge in a political ecology of the 'green economy'. Journal of Political Ecology 24(1):217-242. <u>https://doi.org/10.2458/v24i1.20802</u>

Thompson, M., and K. Homewood. 2002. Entrepreneurs, elites, and exclusion in Maasailand: trends in wildlife conservation and pastoralist development. Human Ecology 30(1):107-138. <u>https://doi.org/10.1023/A:1014519113923</u>

Todd, Z. 2016. An indigenous feminist's take on the ontological turn: 'ontology' is just another word for colonialism. Journal of Historical Sociology 29(1):4-22. https://doi.org/10.1111/johs.12124

Tsing, A. L. 2015. The mushroom at the end of the world. Princeton University Press, Princeton, New Jersey, USA.

Velásquez Runk, J. 2009. Social and river networks for the trees: Wounaan's riverine rhizomic cosmos and arboreal conservation. American Anthropologist 111(4):456-467. <u>https://doi.org/10.1111/j.1548-1433.2009.01155.x</u>

Velásquez Runk, J., C. Peña Ismare, and T. Peña Conquista. 2019. Animal transference and transformation among Wounaan. Journal of Latin American and Caribbean Anthropology 24 (1):32-51. <u>https://doi.org/10.1111/jlca.12389</u>

Waller, R. 1976. The Maasai and the British 1895-1905: the origins of an alliance. Journal of African History 17(4):529-553. <u>https://doi.org/10.1017/s002185370001505x</u>

Waller, R. 2012. Pastoral production in colonial Kenya: lessons from the past? African Studies Review 55(2):1-27. <u>https://doi.org/10.1353/arw.2012.0039</u>

West, P. 2005. Translation, value, and space: theorizing an ethnographic and engaged environmental anthropology. American Anthropologist 107(4):632-642. <u>https://doi.org/10.1525/aa.2005.107.4.632</u>

West, P. 2006. Conservation is our government now: the politics of ecology in Papua New Guinea. Duke University Press, Durham, North Carolina, USA. <u>https://doi.org/10.2307/j.ctv1198x8f</u>

Western, D. 1982. The environment and ecology of pastoralists in arid savannas. Development and Change 13(2):183-211. <u>https://doi.org/10.1111/j.1467-7660.1982.tb00117.x</u>

Western, D. 1994. Ecosystem conservation and rural development: the case of Amboseli. Pages 15-52 in D. Western and M. Wright, editors. Natural connections: perspectives on community-based conservation, Island, Washington, D.C., USA.

Western, D. 1997. In the dust of Kilimanjaro. Island, Washington, D.C., USA.

Western, D., and H. Gichohi. 1993. Segregation effects and the impoverishment of savanna parks: the case for ecosystem viability analysis. African Journal of Ecology 31(4):269-281. <u>https://doi.org/10.1111/j.1365-2028.1993.tb00541.x</u>

Western, D., R. Groom, and J. Worden. 2009*a*. The impact of subdivision and sedentarization of pastoral lands on wildlife in an African savanna ecosystem. Biological Conservation 142 (11):2538-2546. https://doi.org/10.1016/j.biocon.2009.05.025

Western, D., D. L. M. Nightingale, V. N. Mose, J. O. Sipitiek, and K. S. Kimiti. 2019. Variability and change in Maasai views of wildlife and the implications for conservation. Human Ecology 47(2):205-216. <u>https://doi.org/10.1007/s10745-019-0065-8</u>

Western, D., S. Russell, and I. Cuthill. 2009b. The status of wildlife in protected areas compared to non-protected areas of Kenya. PLoS ONE 4(7):6140. https://doi.org/10.1371/journal.pone.0006140

Western, D., and P. Thresher. 1973. Development plans for Amboseli. World Bank Report, Nairobi, Kenya.

Western, D., J. Waithaka, and J. Kamanga. 2015. Finding space for wildlife beyond national parks and reducing conflict through community-based conservation: the Kenya experience. Parks 21.1:51-62. https://doi.org/10.2305/IUCN.CH.2014.PARKS-21-1DW. en

Worden, J. S., R. S. Reid, and H. Gichohi. 2003. Land-use impacts on large wildlife and livestock in the swamps of the Greater Amboseli Ecosystem, Kajiado District, Kenya. International Livestock Research Institute, Nairobi, Kenya.

Zeppel, H. 2006. Indigenous ecotourism: Sustainable development and management. Wallingford: CAB International, Wallingford, UK.