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The Geopolitics of Protected Areas
Maano Ramutsindela, Sylvain Guyot, Sébastien Boillat & Frédéric Giraut, Patrick Bottazzi

Introduction to Forum
Maano Ramutsindela

Research on the links between the environment and geopolitics shows that environmental themes have been used to support geopolitical arguments and objectives (Dalby 2014); to control territory and systems of production (Albert 1992; Mullaney 2014; Bluwstein and Lund 2019); and to forge or break international relations (O’Lear 2018). In the domain of nature conservation, geopolitical perspectives are useful for understanding the development of conservation areas and their management regimes, and how these reflect power relations (Albert 1992). They also shed light on conservation’s changing agendas, techniques and logics (Biermann and Anderson 2017). A utilitarian conception of conservation geopolitics seeks to shape conservation interventions and to use a geopolitical perspective to answer pressing questions in conservation. These relate to the impact of political and economic differences on biodiversity outcomes, the effects of geopolitical practices on conservation efforts, the management of borders and human and wildlife movements, and the realignment of conservation strategies and geopolitical realities (Hodgetts et al. 2018).

In this forum we move beyond this utilitarian approach to conceptualize conservation as biopolitical in that ideas and practices of conservation rely on technologies of power (in the Foucauldian sense) to manage human and non-human life in specific settings in which the meanings of life are (re)constructed in accordance with prevailing power relations. We argue that the geopolitics of conservation is anchored in forms of the environment that aligns ecological rationalities and technologies of governance to produce ideas of the environment transmitted through the international state system. Networks that share or seek to develop a common vision of the world centred on the non-human enable such geopolitics. We further argue that the geopolitics of conservation shapes the behaviour of states, reconfigures relations between the state and its citizens, and forges new relations within and between states.
The forum begins with a brief discussion of the links between geopolitics and protected areas to contextualise the case study materials. Following this introduction, we discuss how ideas of the environment encapsulated by the concept of an eco-frontier creates the border between the non-human and human to enable environmentality by which we mean the construction of the idea of the environment and the determination of the conditions necessary to sustain it (Guyot 2017). Such environmentality is driven by government agencies or international environmental NGOs that define the “scientific truth” necessary for protection of natural features. These external drivers transform sovereignty over space in subtle ways but the spatial transformation can also result from locally embedded environmental projects in which agents seek to exercise control over their environmental resources.

Next, we show that environmental agents do not operate in isolation or at fixed levels—they interact through networks. In this context, the telecoupling framework helps us to uncover conservation areas as effects of networks. This framework not only demonstrates the relevance of critical geopolitics for understanding the creation of conservation areas but also draws attention to conservation areas as a site in which geopolitical practices unfold. These practices take various forms such as the denationalisation of territory through the flow of international funding and conservation ideas, and the resurgence of nationalisms spurred by concerns with global terrorism. The last section of the forum discusses how protected areas entangle with the political ideology of nationalism as well as local identities such as indigeneity that are mobilized for conservation projects. We conclude the forum by drawing the connections between the conceptual frames used in the discussion and by highlighting the significance of a geopolitical lens to the analysis of protected areas.

**Geopolitics of/in protected areas**

Writings on geopolitics emphasise the behaviours of states and the consequent geographical dimensions of power, mainly at regional and global scales. The scope and focus of geopolitics have however changed over time to encompass geopolitical representations of the “self” and the “other”, political actors, the materialities of everyday life, and the diffusion of emotional narratives of the state to the population (to make people feel like the state (Eken 2019). This critical geopolitics pays attention to the ways in which domestic
policy becomes ‘a geopolitical device enabling the internationalization of state territory and economy’ (Li and Jonas 2019, 70).

Given that the concept of geopolitics and the ideas and practices of nature conservation have changed over time, how do we draw meaningful links between geopolitics and conservation? One possibility is to conceptualize the world’s natural environment as a feature of statecraft (Woon 2017). We could also trace conceptions of geopolitics and their impact on protected areas over time. A more helpful approach is to draw on various examples of protected areas to demonstrate the connections between conservation projects and the multiplicity of interests, and the consequent power relations enabled by conservation as a global project.

The geopolitics of conservation is the latest addition to a much broader discussion on environmental geopolitics. Examples of that discussion include research on polar geopolitics (Powell and Dodds 2014) and on ecological catastrophes as a post-Cold War geopolitical phenomenon characterised by the redefinition of notions of national security (Dalby 1992). However, the question of how this geopolitical lens enhances our analysis of protected areas as a subject of geopolitical inquiry has not been fully answered. In other words, the new geopolitics that seeks to construct ‘theoretically informed critiques of the spatializing practices of power’ in various sites (O’Tuathail and Dalby 1994, 514) has not been utilized fully for the study of protected areas as a geopolitical phenomenon. Chaturvedi (1996, 3) is of the view that the new geopolitics offers possibilities for tackling ‘questions relate[d] to ecological and economic security in the context of emerging global civil society’. While concerns with security issues are important for world peace, they tend to obscure a much more subtle manifestation of geopolitical forces operating in conservation spaces. Take the negotiation of conventions and treaties for the protection of biological diversity through the establishment or enlargement of protected areas, which bring together weak and powerful states to agree on actions for a common good. This unequal power relation results in the pursuit of national interests under the guise of global interest. In Africa and elsewhere in the Global South, conservation-related conventions and treaties require funding instruments that also tie nation states to some conditionality, especially the release of land for nature
conservation often at the detriment of local people who depend on such land for their livelihood.

The geopolitics of protected areas more generally manifests in the representation of environmental problems in pursuit of the interests of states, in how environmental narratives privilege certain perspectives while marginalizing others, and in the manner in which the environment constitutes a global platform on which international relations are forged or even broken (O’Lear 2013). In this forum we build on this body of work by analysing protected areas as a terrain of geopolitical thought and practice. Our premise is that protected areas function as axes of geopolitics and are also a lens through which we can investigate the ways in which environmental problems and solutions embody the interests of powerful states, non-governmental organizations, and global capitalism. The discussion that follows shows how these actors imagine the environment in ways that have profound implications for the governance of the environment. The actors engender an environmentality that in turn produces eco-frontiers as zones of boundless, timeless and invaluable wilderness protected from humans, especially indigenous populations (Ramutsindela 2004; Guyot 2011).

Eco-frontiers and environmentality
Sylvain Guyot

A frontier is an area of material colonisation between remaining zones of wilderness and civilisation, and it is also an active space where natural elements are considered of utmost importance (Redclift 2006; Guyot and Richard 2009; Héritier et al. 2009; Guyot 2011, 2017; Arnauld de Sartre et al. 2012). As a term first created by a green civil society, the eco-frontier involves ‘a geographical process that motivates humans to conquer a boundless, timeless and invaluable wilderness in the name of plural ecologies to serve their own desires for control and territory building’ (Guyot 2011, 678). It also draws attention to diverse and evolving political strategies for preserving nature in time and space. The eco-frontier is a way to understand the geopolitics of contemporary land expropriation through environmental actions and discourses. Eco-frontiers increase the status of natural spaces, and in doing so lead to geopolitical conflicts (Guyot 2011). This very political side of the
control of nature in a geographic space – which is often hidden under other imperatives – can be perfectly explained by post-Foucauldian notions of eco-governmentality and environmentality (Hebden 2006), which connect the fields of political ecology and critical geopolitics. This part of the forum contributes to eco-frontier theory by analysing the concomitant evolution of territorial production and its environmentality underpinning.

Eco-governmentality’ is a derivative aspect of Foucault’s theory of governmentality (Foucault 2004) ‘that combines concepts of bio power and governmentality in analysing the regulation of social interactions in the natural world’ (Guyot 2017, 24). It is grounded in Foucault’s examination of states with a focus on ecological rationalities and technologies of governance (Malette 2009). Scholars have reconceptualised eco-governmentality as a form of environmentality that includes multiscalar aspects of a now largely globalised system of environmental governance (Luke 1999, 2000; Bryant 2002; Hebden 2006; Guyot 2015, 2017). For its part, environmentality is defined as ‘a process whereby an environmental regime constructs the very idea of environment while also determining the conditions required for that environment to sustain their political approaches’ (Guyot 2017, 25).

Agrawal (2005a, b) highlights that part of these conditions lie in the embodiment of environmental agents within the general population. More specifically, the eco-frontier is a spatial process involving certain political types of environmentality.

In fact, an eco-frontier is driven by environmentality in two related contexts. The first involves a case where a government agency or international environmental NGOs use science to justify the creation and management of protected areas. This eventually leads to the determination of, for example, national park locations and borders, ensuring some kind of sovereignty over space for these NGOs. In the second context, bottom-up environmental agents strive to experience their own eco-frontiers by creating eco-villages, locally based biodiversity corridors or environmental education programmes, where disciplinary values are at stake (Guyot 2017). The eco-frontier therefore reveals the spatial imprint of hidden forms of environmentality.
The eco-frontier as political control

In the literature, the connection between nature and space is paradoxical and tends to reinforce the intrinsic and contradictory divide between nature and culture. A dualism does exist between geographical notions of spatializing nature. Two frameworks stand out in the analysis of this divide. The first focuses on the boundless, timeless, invaluable and non-human aspects of nature, namely wilderness, vastness, and wasteland with eco-tone characteristics. The second not only captures the territorial imprints on bounded, valued and human-controlled natural spaces but also pays attention to the demarcation of designated natural areas and their surroundings by green belts, buffer zones, environmental corridors, protected areas and spatialized environmental networks (Guyot 2011). These two perspectives are paradoxical in that they pay less attention to the dynamics of natural systems. They also ignore the entanglement between ecosystems and human survival that vary across space and time. While the wilderness is intended to remain a wild and uninhabited area in its original condition, no space in the world currently meets strictly such a description. Alternatively, a protected area such as a national park is considered ‘an area of land and/or sea especially dedicated to the protection and maintenance of biological diversity and managed through legal or other effective means’ (IUCN 1994). The reality is that tourism and recreation often replace ecosystems in small reserves and agricultural practices. Ecotourism represents modern forms of elitist mobility and negates the timeless dimension of protected environments. Ironically, it does this while obstructing the ancient nature-related mobility of local inhabitants (Guyot 2015).

The concept of eco-frontier clarifies this dualism by exposing it as a process of environmental control and territorial building. The eco-frontier can embrace the entire process of eco-conquest, both mentally and spatially, without restricting its temporal dimension (Guyot and Richard 2009). It represents a double spatial and temporal concept in which new dynamics always revisit old processes. Both dynamics are included in the eco-frontier logic of conquest and both explain contemporary environmentalities of political control over nature.
Generations of eco-frontiers and hidden environmentalities

The evolution of eco-frontiers is divided into three generations: imperial, geopolitical, and global, each of which illustrates a facet of the relationship between protected areas and environmentality. These generations emerged at different times and tend to co-exist today through processes of superposition and percolation. These processes mean that younger generations of eco-frontiers can use and modify the legacies of older generations while also evolving through the adoption of new principles. The high plasticity of these categories goes beyond a simple chronology of evolution.

Imperial eco-frontiers: the environmentality of exploration

Imperial environmentality combines two intricate processes, namely romanticism and expansionism. First, romanticism characterised the traveller’s era in which naturalist explorers and artists positioned themselves as preservationists to give legitimacy to the theory of “environmental agents”. Second, the expansion of conservation in new territories of the great Empires such as Britain and its colonies (mainly Eastern and Southern Africa, Australia, New Zealand and Canada) and the United States and its western frontier territories bring forth imperial environmentality (Figueirido 2006; Payne 1996). This period was marked by the first generation of national parks such as Yellowstone in the United States, which symbolized modernity and, more importantly the transfer of control over land and other aspects of nature to centralised states. Such transfer was often achieved through violence, especially the use of military force (Spence 1999; Guyot 2011). The states involved established property regimes, which often challenged and transformed traditional and indigenous rights to natural resources while securing new relationships between central governments and civil societies (Redclift 2006). In this imperial context, nature becomes a tool of sovereignty and must be enclosed with proper boundaries that also serve to reserve areas of natural resources.

Geopolitical eco-frontiers: a nationalist environmentality controlling international borders

The second generation is characterised by a political context of nationalist governmental retraction over nature conservation, which I call ‘nationalist environmentality’ (Guyot 2015). This era has also been referred to as “ecologicality” by various authors (Di Stefano 2008; Mazel 1996, 1998). Nationalist environmentality produces eco-frontiers to serve the
geopolitical interests of nation-states at different scales (Ferradas 2004). It is understood that the second generation of eco-frontiers emerged between the two World Wars. However, the use of nature in the defence of the state began prior to this period as evident in Africa in the 1930s, and along the Chilean/Argentinean border in northern Patagonia (Miniconi and Guyot 2010). The rationales for these kinds of state action include attempts to secure borderlands by using nature as a nationalist tool, and to influence state control over peripheral regions, where local inhabitants have been removed from protected areas. Buffer zones also play a strong role in legitimising this second generation of eco-frontiers. They demarcate nature in ways that support politically driven initiatives to exclude certain regions or populations from protected areas (Shafer 1999; Martino 2001; Neumann 2004; Paudel et al. 2007). They have also been used as geopolitical resources in the context of international border tensions (Correl 2005). A case in point is Eduardo Avaroa National Reserve that was proclaimed a buffer zone during severe diplomatic tension between Chile and Argentina in 1974. The park is named after Bolivia’s hero during the War of the Pacific involving Chile, Bolivia and Peru in 1879-1883, Eduardo Avaroa, who was also one of the leaders of the civilian resistance to the Chilean invasion during the Battle of Topáter. This makes the reserve a national symbol of resistance (Guyot 2011).

In another instance, Caprivi Game Park – currently known as Bwabwata National Park - in Namibia, situated between Angola, Zambia and Botswana added a new layer into the politics of the Caprivi region.¹ The region has been contested during colonialization and in the post-independence era. For example, the British and the Germans contested territorial control of the region as it was crucial for securing the passage to the Zambezi. The Anglo-German Treaty of 1890 sought to determine the spheres of influence of Germany and Britain in the Caprivi but did not delimit the boundary between Botswana and Namibia (Gathii 2002). During its occupation of Namibia (1920 – 1990), South Africa used the Caprivi to exert its power through the military, environmental science, and local economic development projects (Lenggenhager 2018). By the 1970s South Africa had militarized the Caprivi in its war against liberation movements in Southern Africa. Of significance to the theme of this forum is that the South African government established the Caprivi Game Park

¹ Additional notes on the Caprivi by Maano Ramutsindela
in 1968 as a strategy for controlling the Caprivi and its people (Lenggenhager 2018). Following the independence of Namibia in 1990 Botswana and Namibia disputed the ownership of the Kisikili/Sedudu Island and by extension the border between the two countries in the Caprivi. The dispute ended up in the International Court of Justice that ruled in Botswana’s favour in 1999.

Global eco-frontiers: an international environmentality over global nature

The third generation of eco-frontiers is driven by a global environmentalist network, which implements a multiscalar environmentality, based on scientific truth, international sovereignty and neoliberal valuing of nature (Guyot 2017). A combination of ecological corridors, eco-tourism and participatory management strategies involving local communities transform inflexible and rigid borders between nature and surrounding areas into more porous, connected and reticular territorial arrangements (Guyot 2015). Within the global environmentalist network, four groups of stakeholders design the architecture of more complex forms of environmentality.

First, environmentalists map the world to exert sovereignty over new eco-frontiers of connectivity and high biological value, as well as cultural areas such as biodiversity hotspots, corridors, and indigenous reserves (Laslaz et al. 2012). This group demands an increase in the size of protected areas worldwide, supporting the development of structures such as transfrontier parks (Fall 2003; Chester 2006; Ramutsindela 2007). Second, intergovernmental institutions and programmes such as the World Bank and the United Nations Environment Programme produce new neo-liberal eco-frontiers related to global change while emphasising the importance and value of ecological services. Third, certain scientific communities and the media promote the development of truly eco-frontiers as a last resort to prevent world environmental destruction in remaining secluded and remote areas such as the Antarctic and isolated islands. Finally, the general public, recognised as a legitimate environmental agent, contributes to the general ecologisation of society by supporting eco-tourism strategies based on an eco-frontier dream (Guyot 2011). Therefore a web of environmental agents seeks to preserve and protect the non-human even though they adopt different strategies and their power relations and decision-making processes
Transboundary protected areas as “telecoupled” contexts: a geopolitical approach

Sébastien Boillat & Frédéric Giraut

Socio-economic globalization has led to a constant increase in flows of people, information and traded goods. In this context, the interactions between distant points on the globe are more prevalent than ever before (Liu et al. 2007). Researchers from the field of land system science have proposed the notion of telecoupling to refer to socioeconomic and environmental interactions over distance between socio-ecological systems (Liu et al. 2013). For example, they have shown how international soybean demand drives forest conversion to cropland in South America (Gasparri and Le Polain de Waroux 2015).

The telecoupling framework takes connected socio-ecological systems as a starting point and assesses flows of goods, species and energy between them; identifying agents, cause-and-effect relationships, and “spillover” systems that are affected by the flows (Liu et al. 2013). The advantage of the telecoupling approach in relation with a more general approach to globalization is that distant, connected systems are an integrated part of the analysis, making possible the identification of key stakeholders and processes and their transformation options.

However, the telecoupling framework does not make explicit the wider implications of distant interactions to society and to the environment in terms of power, control and unequal outcomes. For this reason, several researchers on telecoupling have proposed a more heuristic telecoupling approach that includes institutions, actor networks and governance processes to make power relationships in decision-making across distances more explicit (Friis et al. 2015; Eakin et al. 2017, Oberlack et al. 2018). In this contribution, we propose to connect the concept of telecoupling with a geopolitical approach, which pays attention to unfolding power relationships within conservation spaces and how these relations are forged through distant interactions. Our hypothesis is that the focus on flows borrowed from the telecoupling framework can help to uncover the making of territories as
‘effects of networks’ that are necessarily ‘porous, incomplete and unstable’ (Painter 2009, 73). We postulate that uncovering this networked dynamic is a key element for a critical geopolitical approach to protected areas.

We pursue this objective by investigating the influence of distant flows on the governance and management of protected areas (PAs) and the relationships between distant actors, national governments and local communities. We build on a diachronic analysis of the case of the transboundary “W of the Niger conservation complex” named after a “W” shaped bend of the Niger River. The W complex has undergone several reconfigurations in territorial setting, management practices and flows of funding, species, and people since its creation in the 1950s.

**Protected areas as telecoupled contexts**

Many causes of biodiversity loss, such as overexploitation of species, agricultural commodity frontiers and the spread of invasive species and diseases (Maxwell et al. 2016) are related to global socio-economic flows. Such distant flows are particularly challenging to regulate, because they make the identification and involvement of relevant stakeholders difficult (Lenschow et al. 2016). Literature that analyses PAs as telecoupled contexts has however not yet made power relationships and their social consequences explicit. For example, Liu et al. (2015) analyzed the Wolong National Nature Reserve in China as a space of interaction of multiple telecouplings, including global media exposure, international and national tourism, and panda loans to zoos in China and abroad. Destinations of panda loans and the origin of tourists tend to overlap geographically in a few cities in China, USA and Japan. Though the authors highlight possible leverage points for PA governance they do not address power asymmetries and struggles explicitly. Carrasco et al. (2017) conceptualize PAs as instruments to curb or limit flows of natural resources and thus as responses to telecoupling processes (Carrasco et al. 2017). PAs emerge through increased flows of information that raise awareness of environmental issues in distantly connected systems and that generate pressure to adopt and support conservation practices (Carrasco et al. 2017).
The telecoupling approach appears particularly useful to uncover the distant ties that play a key role in shaping PA governance and its social and ecological outcomes. Nevertheless, to grasp the full potential of this approach, one needs to consider the flows that make up PAs from a dynamic and politically explicit perspective. Such perspective makes the paradoxical position of PAs visible: while they are meant to protect nature by restricting uses and flows of species, matter and people, they also represent a valuation of nature that opens up new flows of international tourism, information and funding (Brockington et al. 2008; Miller 2014).

In this context, the globalization of nature conservation does not only have consequences on how nature is managed, but also generates winners and losers, and have an impact on local, national and regional geopolitical configurations (Ramutsindela 2004). This is particularly relevant to African PAs, which are often characterized by strongly asymmetrical decision-making and the prevalence of distant ties through colonial heritage, reliance on external know-how and funding, and tourism. Many PAs in Africa were created during colonial rule and have inherited management structures of that time (Neumann 1998). For example, British and French colonialism influenced the location, objectives and management styles of PAs. As former “game reserves” dedicated to the recreation of the colonial elite, PAs in former British colonies often focus on wildlife and tourism (Giraut et al. 2005), while PAs in former French colonies are dominated by centralized natural resources management in the tradition of French water and forest (“Eaux et Forêts”) management (Giraut et al. 2004). One can therefore ask: to what extent do the contemporary flows of funding, tourist visits and management experts represent a continuation of these past ties, and how are these flows being transformed to reshape decision-making and power relations in PA governance and management?

**A telecoupled conservation context? The scalar swing of the W park(s) in West Africa**

With their location at the margins of national jurisdictions and their position as an interface between nations, transboundary conservation represents an opportunity to make national, regional and international geopolitical stakes visible, and this makes it possible to relate them with changes in flows through time. The case of the W of Niger transboundary conservation complex in West Africa illustrates these possibilities. The complex comprises
several contiguous national parks, forest and wildlife reserves across three nations, Niger, Burkina Faso and Benin.

The area was declared a wildlife sanctuary ("parc-refuge") in 1927, an integral fauna reserve in 1937, and a national park in 1954, when the three countries were part of the French colonial empire. The declaration of a wildlife reserve in this historically low density population area (Benoit 1999) represents an exception in the French colonial context, in which the zoning of PAs was mainly dedicated to forest conservation and exploitation. Here, the French colonial arrangement crossing the internal colonial boundaries was made of parks and hunting reserves in a rare area of West Africa where the “Big Five” (buffalo, elephant, leopard, lion and rhino) could be hunted. It led to a few forced removals of villages and hunting, fishing, picking and mining hamlets. These settlements were developed in the first phase of colonization when the new colonial geopolitical order opened a previous no man’s land bush between competing war chiefdoms (Benoit 1999).

After the independence of Niger, Burkina Faso and Benin, the colonial park was transformed into three national parks on the different sides of the brand new national borders. The newly created national parks appeared as key features of state empowerment and sovereignty in the process of national consolidation. In this context, a gradual tension emerged between a consolidating park administration and rangers, and local communities (Ramutsindela 2004), especially herders (Turner 1999), who seasonally crossed the park to follow their transhumance routes. From the 1990s onwards, the regional integration of the W complex as a transboundary PA increased through international promotion and funding flows. This happened with the recognition of the Niger part as an UNESCO Man and Biosphere (MAB) Reserve in 1996, which then extended to Burkina Faso and Benin in 2002, and international support linked with the promotion of the “Peace Parks” model also used in Europe and Southern Africa. The W complex became ‘W’ Region Transboundary Biosphere Reserve, the first UNESCO transnational reserve in Africa (Figure 1). The W complex received the support of an ambitious European Programme called ECOPAS/W (Ecosystèmes protégés en Afrique soudano-sahélienne) between 2001 and 2008. The programme had a strong research component jointly with additional capacity building and local participation empowerment initiatives – which clearly shows the ties between funding
flows, the transfers of new ideas, and their corresponding management approaches. These initiatives supporting local participation according to the new international paradigm of PA management in the early 2000 was not part of the MAB programme proper but was indirectly linked with the inclusion of traditional human practices such as seasonal bush fires in the definition of the heritage site. Governance and management were harmonized in a transnational way with common strategies and infrastructures, and cooperation between ranger teams. The project also promoted the name of “W regional Park” instead of the previous W national parks (Figure 1).

INSERT FIGURE 1

After 2008, when ECOPAS/W ended, a more splintered set of international aid projects (both multi- and bilateral) took over with the PAPE programme (Programme d’Appui aux Parcs de l’Entente). PAPE was supported by the United Nations Development Programme (UNDP) and the Economic Community of West African States (ECOWAS). The programme was also extended spatially with the inclusion of the Arly and Pandjari national parks in Burkina Faso and Benin, and the fauna reserve of Oti-Keran-Manduri in Togo, adding a fourth country to the transboundary complex. In this context, both the spatial extension and the splintering of initiatives and related funding sources led to a less transnational initiative. Instead, a more international set of national PA and local initiatives was set in motion. The MAB and ECOPAS programmes also led to reforms in park policies. For example, buffer and core zones were partly opened to seasonal pastoral activities (Kagoné et al. 2006; Convers et al. 2008), and wildlife tourism benefit-sharing schemes were developed with local communities (Vermeulen et al. 2007; Vermeulen 2004). In this context, tourism reached its peak in 2006 with more than 5000 visitors (Nigerien visitors 2333, expatriate residents 1964, and Foreigners 793) (Halilou Malam Garba 2009).

The context of the W complex changed after 2015, when terror attacks and abduction risks led Western countries to state that the area (especially in Niger and Burkina Faso) was unsafe for Western citizens. This situation led to new policies of national border control and securitization, empowering national bodies such as the army, custom officers, and rangers. This shows that national parks became a geopolitical site on which international relations
were shaped in line with the global war on terror. In this context, a re-nationalization of the area took place, which is visible on the 2017 UNESCO map of the extended area inscribed on the world heritage sites list. The map refers to five different national parks rather than a regional complex. Meanwhile the consequent drop in tourism undermined the economic base of participatory policies. Furthermore, a nationalistic view of protection prevailed and was less open to innovation. There was also a reluctance to allow pastoral activities that were still seen as the main threat to biodiversity and the natural landscape. Paradoxically, however, the transnational dimension continues to be promoted and branded, as evident in the inscription in 2016 of the “Complexe W-Arly-Pendjari” as a UNESCO World Heritage site (Figure 2).

**INSERT FIGURE 2**

Table 1: The Main phases in the management of the W conservation areas:

| Phase                  | Intracolonial regional borderland PA | National PAs | Transnational (regional) borderland PA | (inter)-National borderland PAs |
|------------------------|-------------------------------------|--------------|----------------------------------------|--------------------------------|
| Years                  | 1920’-1950                          | 1950’-1990’  | 2000’                                  | 2010                           |
| Protected Areas involved with proper formulas | “Parc Refuge”; “Réserve Totale de Faune du W” | Three “national parks” on each side of the border | “Parc Régional du W”; “W Region Transboundary Biosphere Reserve” | “Parcs de l’entente”; “W-Arly-Pendjari complex”; |
| Main tied distant region | France                               | National centers (Niger, Burkina Faso, Benin, Togo) | Global, European Union           | National centers, global       |
| Financial flows        | Low (?)                              | Low          | High                                   | Medium                         |
| Tourism flows          | Low                                  | Medium       | Medium-High                            | Low                            |
The different phases in the management of the W conservation complex (Table 1) show strong connections with international and national centers. These phases are characterized by the “swing” from regionalization to the merging of the PAs into a single entity, to nationalization, and to the splitting of the conservation area into separate but related entities. The regional approach was prevalent at the very beginning of the park’s history, when it was part of the French colonial empire, and with international recognition through UNESCO. In particular, strong international telecoupled connections established through the UNESCO MAB programme and the subsequent conservation and development project were related to an increase in funding and in tourism. Nevertheless, they were also related to an increase in the participation of local communities and in benefits associated with sustainable resource use such as pastoralism. Inversely, phases with weaker international connection witnessed the strengthening of nation-state connections, which happened first with the independence of Niger, Burkina Faso (former Haute Volta) and Benin (former Dahomey), but also more recently due to growing insecurity in the region.

The oscillation in international connections referred to above has implications for the distribution of power among the social actors involved, which can be interpreted through a geopolitical lens. First, the fact that weaker international support did not lead to weakening of the parks but rather a return to a fortress-like approach reveals the strong interest of the three neighbouring states to control the park area, and appears to be specific in a transboundary context, where the defense of borders is at stake. The increased control and surveillance of pastoralists during these phases is also not surprising given the difficulty for nation-states to accommodate mobile people (Scott 1998). Thus, nationalization happens at the detriment of local communities.
Second, the increased empowerment of local communities during phases of strong international support highlights an overlap between internationalization and local fragmentation, which is not only visible with the decentralization of governance, but also with the fragmentation of international aid projects after the phasing out of the ECOPAS/W project in 2008. This phase shows affinities with processes of “neoliberal multiculturalism” in which local communities are connected to the global market. In this case, local empowerment happens at the expense of the nation-states (Hale 2005). Because of strong international dependence, local participation rather appears as a direct consequence of “telecoupled” funding flows than a genuine bottom-up process, and is weak when this international support is low. In this context local participation forms part of a broader conservation agenda around which new forms of conflict between local residents and conservation agencies emerge. However, an alliance of local populations, conservationists and companies can also emerge to define and implement conservation agendas. In the Amazon, this process requires the alignment of local identities with conservation ideals and objectives.

Indigenous territorial identities and protected areas in Bolivia: a geopolitical interpretation

Patrick Bottazzi

Due to their importance for global environmental projects, protected areas have become legitimate objects of international interference (Dodds 2014). In the years following the Rio summit in 1992, a growing number of national and sub-national actors took part in the politicized debate around and within protected areas to gain legitimacy and access over resources, people and power. In particular, the everyday geopolitics of protected areas in the Amazon is a theatre of international, national but also sub-national entities such as indigenous peoples, NGOs, forest agencies, and forest companies that have been permanently struggling for territorial claims over which there are many conflicts (Albert 2004). Throughout the reconstruction of an imaginary definition of “indigeneity”, those actors have attempted to build legitimate scenarios of resource appropriation. In South America, and particularly in the Amazon areas, international conservation organizations, local advocacy NGOs and governments have essentialized and popularized notions of
indigenous peoples’ ecological stewardship to legitimate territorial reforms in the name of multiple indigenous groups (Albert 2004). In some cases territorial claims, by conservation NGOs in the name of indigenous populations, there was a hidden agenda for the commercial control of timber, oil and gas (Chapin 2004). As the case study of the indigenous populations in Bolivia will show, attempts to give title to land to indigenous peoples are highly political.

Scholars of agrarian and land reform have used different vantage points to argue for or against land titling (Deininger and Feder 2009; Grimm and Lesorogol 2012; Ramírez-Álvarez 2019). The rationales for giving marginalized peoples title to land (i.e. titling) are that the process is necessary for securing land rights and for increasing the economic value in situations where these rights are precarious or are deemed weak and ill-defined. A counterargument is that land titling is embedded in a Eurocentric view of land as private property. Furthermore, giving land titles to individuals who share land as a common resource risks creating conditions for land alienation as wealthy and influential people are likely to acquire land from the poor, thereby leaving them landless. The process of land titling has been strongly associated with strategic and heterogeneous international and national political agendas. The formalization of indigenous territories in protected areas was also criticized for the fragmentation of complex indigenous territoriality (Reyes-García et al. 2014) or for what is called an “ethnical segmentation” of space and natural resources (Bottazzi and Rist 2012; Bottazzi 2014). The Bolivian case illustrates some of the complex issues related to the ‘everyday geopolitics’ of indigenous territories overlapping with protected areas. Such approach of geopolitics emphasizes divergent interests in natural resources but also signifies the redefinition of sub-national identities and territorialities.

**The indigenous/conservationist alliance and international forest companies**

By the end of the 1980s there was increasing worldwide awareness of the existence of rainforest indigenous populations living according to values different from those cherished in the westernized and capitalist world. The images of charismatic indigenous leaders appeared on television supported by famous artists and documentaries. This appreciation of indigenous ways of life was accompanied by a sense of environmental justice. For example, it elevated the territorial rights of indigenous peoples to the international arena, where the
International Labour Organization Convention 169 supported indigenous territorial rights. At sub-national levels, this development was echoed by the mobilization of grassroots indigenous organizations to claim territorial rights and to secure access to natural resources (Morin 1992). In Bolivia, a group made up of intellectuals (national and foreign), the Catholic Church, evangelical missionaries (such as the US New Tribes Mission) and conservation activists promoted an essentialist vision of human/nature harmony and the indigenous ecological way of life.

The first territorial demand in favour of less mountainous areas by indigenous groups date back from 1988 when it was formulated by the Central Cabildos Indigena Mojeños (CCIM) that later became the Central de Pueblos Indígenas del Beni (CPIB) by extension to other indigenous groups of the lowlands. The first decree recognized the geographical area ‘traditionally’ occupied by indigenous groups living according to their cultural and subsistence needs ‘with an integral exploitation of natural resources, maintaining the equilibrium of nature and the conservation of ecosystems’. Paradoxically the titling process in favour of indigenous groups that continued in the early 1990s was directly related to corporate interests in timber extractions supported by international actors such as the International Timber Trade Organization (ITTO), the German forest mission, as well as Canadian and North American forest companies. The idea was that by supporting indigenous groups’ title to their land, forest companies would keep a better control on forest resources knowing the weak economic and political capacities of indigenous organizations compared to local private operators or the Andean settlers’ organizations.

Big conservation NGOs such as Conservation International and the Nature Conservancy were reluctant to support the formalization of indigenous land rights. They preferred strict rules for biodiversity conservation that were, in their view, not guaranteed under indigenous rights (Lehm 1994; Bottazzi 2014). Their support came with a conditionality to combine protected areas with indigenous land (known as double statute areas) and their initiative contributed to reducing forest extraction in some critical areas in the following years. The departure of forest companies however was organized after most of the precious

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2 Decree n°205862 Februrary 17th 1989
timber was already extracted and exported. The recognition of the first five indigenous territories shortly after the March for the Territory and Dignity started in August 1990\(^3\) was done in the name of the Tsimane’ Mojenos, Sirono, and Yuracaré indigenous groups. At the same time, the decree created the Isiboro Sécure National Park and Indigenous Territory (TIPNIS) with the double statute of protected area and indigenous territory. Between 1990 and 1996, 33 indigenous territories with a total area of 14 million hectares were also recognized.

**Instruments of hydrocarbon and migration control**

During the 1990s, successive liberal governments in Bolivia also created an environmental regime through the environmental law of 1993 and the forestry law of 1997. These laws are the products of a long standing negotiation between conservation activism, forest companies, local forest user groups, parts of civil society, and government authorities (Pacheco, de Jong, and Johnson 2010). A decisive push for the creation of the National System of Protected Areas (SERNAP) came from the government of President Sánchez de Lozada whose daughter, a biologist, was the national director of the Department of Biodiversity Conservation (Steinberg 2001). In 1998, 21 protected areas covering 17.5 million hectares were created of which seven overlapped with formally recognized indigenous territories (TCO). This confirms the importance of the strategic alliance between indigenous territorial claims and conservationists’ interest. During the same period and under the same government, the most influential regulations to protect the environment were established and enforced.

The creation of the national system of protected areas in Bolivia has been interpreted as the willingness to protect rich biodiverse areas while at the same time keeping control over strategic resources such as mining, gas and oil. Since their creation, 20 protected areas have been subjected to potential and effective extractive concessions. Some border parks such as Noel Kempf Mercado National Park (on the border with Brasil), Madidi and Apolobamba (on the border with Peru) acted as buffer zones to stop ‘pioneer settlers’ in neighbouring countries from accessing natural resources (Perrier-Bruslé 2005). Until 2006, the temptation

\(^3\) DS No. 22609 of 24 September 1990
to extract hydrocarbon has been contained due to the presence of a strong conservationist lobby and the mobilization of indigenous organizations.

**Spaces of “multicultural revolutions”**

Protected areas in Bolivia should also be understood as spaces of ‘multicultural revolutions’ in that they were shaped by colonialism, militarization and a liberal ideology and its consequent productivist valuation of space and natural resources, private property, commercial crops and cattle expansion with the aim of ‘feeding the nation’ (Bottazzi and Rist 2012). In 1996, the so-called ‘second agrarian revolution’ took place under the neoliberal regime of Sánchez de Lozada that promoted liberal multiculturalism (Hale 2005; Lacroix 2012). It resulted in the *Tierra Comunitaria de Origen* (TCO): a formal recognition of the land distributed to indigenous groups, mainly in the lowlands together with other categories such as the small property, the communal land, the *solar campesino*, the medium and the large properties. This recognition was part of the strategy to satisfy all the groups represented in the Bolivian society by granting specific rights to secure their land. An extremely ambitious programme of land formalization known as the INRA reform (*Instituto Nacional de Reforma Agraria*) in 1996 was largely funded and implemented by foreign agencies to support the land registration process (*saneamiento*) but was also motivated by specific economic interests in natural resource extraction and control over populations (Lerch 2014). The reforms accelerated the formal titling process and political recognition of indigenous territories overlapping protected areas, most of them being located in the lowlands.

**Conflicting indigeneities and the weakening of protected areas**

A radical change of regime took place in 2003 and was driven by what some have called an “indigenous liberation” (Webber 2011). Supported by all the indigenous groups of the country from the *oriente* to the *occidente*, the leader of the coca producer unions and of the MAS political party, Evo Morales, came to power in 2006 defending an “indigenist” national identity and the moral values of mother earth (*pachamama*). His first reforms clearly show his solidarity with the Andean settlement and cocalero movement. The new law of agrarian
reforms (*Ley de Reconducción Communitaria de la Reforma Agraria*) facilitated the expropriation of large scale private properties as well as the conversion of all the TCO into TIOC (*Territorio Indígena Originario Campasino*). Both reforms aimed to satisfy the land needs of Andean settlers in the lowlands. To achieve this, Morales fired the director of the SERNAP and appointed someone known to be in support of the Andean settlement policies. Many directors of parks were also changed for the same reason. Two cases illustrate Morales’ political economy in respect to protected areas and lowlands indigenous, namely Chepete-Balla Dam and the TIPNIS national park. The construction of the hydropower dam compromised some 180 km$^2$ of protected areas and impacted negatively on the subsistence of indigenous peoples. Hence indigenous peoples went on a 12 days hunger strike in protest against the construction of the dam. The Morales government also showed disregard for protected areas and indigenous territories by constructing the Villa Tunari-San Ignacio de Moxos highway across the TIPNIS national park and indigenous territory. The project would potentially open the park to the *cocaleros* and could potentially serve the purpose of cocaine market export into Brazil. In addition, companies have been granted 25.5 % of the TIPNIS for hydrocarbon exploration (Hope 2016). In summary, the highway project has ignited tension within local groups, has spurred local resistance, and has also led to violent encounters with the police (Perrier-Bruslé 2012).

The geopolitical interpretation of indigenous resistance against the Chepete-Balla dam as well as against the TIPNIS is that it was organized on the basis of a place-based indigenism (Moorman 2017), which the government labelled as the work of external forces. To be sure, the government described indigenous resistance as a strategy of foreign environmentalist interests defended by ‘small groups’ that are linked to foreign North American interest. In the view of government, the United States Aid for International Development (USAID) and environmental NGOs support these small groups to destabilize the political sovereignty of the indigenous and socialist nation of Bolivia. The controversial dam and the highway are not the end of the story; the Morales government has also granted several oil and mining concessions in eight of the twenty-one protected areas of Bolivia. The decree 2366 adopted in May 20, 2015 by Morales’ government allows the development of oil extraction in

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Law n°3545 of November 28th 2006
protected areas. Conservation organizations and lowlands indigenous organizations see the Morales government as a threat to the cultural values associated with “mother earth”.

The Bolivian case shows that multiple indigeneities in protected areas are the mirror of diverging and converging geopolitical interests supported by local, national and international actors. These conditions are conducive for conflicts among indigenous groups and between these groups and the central state. In Bolivia successive governments adopted, emphasised, and sometimes accepted alternative indigenous territorialities in protected areas to legitimate contradictory policies of conservation, extraction of strategic resources, and large scale development programmes.

Bolivia’s protected areas epitomize a geopolitics that combines competing strategies of access to, and control over natural resources through a redefinition of subnational indigenous identities. Protected areas have played a critical role in the geopolitical redefinition of the “self” and the “other” (Ramutsindela, 2004) for various indigenous groups, while being instrumental for transnational actors such as conservationists, forest companies, and successive neoliberal and indigenist governments of Bolivia. The Bolivian geopolitics of protected areas demonstrates the versatility of essentialized notions of indigeneity as an economic and political instrument against those in power (Thornber 2016).

**Conclusion: Insights from the Forum**

**Maano Ramutsindela**

In practice, the geopolitics of conservation entails the deployment of the idea of the environment to save biodiversity but also to influence states and citizens to behave towards the biophysical environment in specific ways. It is a form of statecraft in that it redefines state sovereignty over natural resources and creates governance structures for the management of these resources as well as the people who use or need them. Conditions under which eco-frontiers are sustained to produce conservation and political goals are not local but are themselves an outcome of global processes. This means that a protected area such as a national park may not embody national aspirations of, or interest in the wild.
Instead, external forces could drive its establishment as the first generation of national parks in African has shown (Grove 1995).

Though essays in this forum tackle specific elements of geopolitics in protected areas in different contexts, they collectively demonstrate the need for attuned attention to protected areas as sites of geopolitical thinking and action. They highlight the need to frame geopolitical discourses in multiple scales and reveal the connectedness between local practices and world politics. If indeed geopolitics is part of everyday life (Dodds 2014), the need to understand the ways in which protected areas are involved in determining the fortunes and miseries of ordinary people emanating from environmentally-inspired actions is a pertinent geopolitical question. Answers to this question require that we pay attention to the dialectical relations between geopolitics and protected areas. These relations have a spatio-temporal dimension, which is crucial for understanding the dynamics of protected areas and the conditions under which conservation contributes to geopolitical thought and practice.

The concepts that stand out in this forum are eco-frontier, telecoupling and place-based indigeneity. Taken together, these concepts demonstrate three key elements of the geopolitics of protected areas. First, at the core of the geopolitics of protected areas is the idea of nature that enables conservation practices through networked agents, whose objectives are pursued in specific sites. Whereas environmentalities are crucial for the control of land and other natural resources, telecoupling facilitates this control through networks operating in distant spaces to direct place-based conservation projects. Second, the networks that pursue conservation objectives lend themselves to geopolitical interpretations. Examples of these interpretations are that networks serve global environmental agendas that shape domestic policies and that also compromise the national developmental agendas of weaker states. There is also a view that international conservation agencies and organisations working with local and indigenous groups interfere with domestic affairs thereby undermining the sovereignty of the state. This view is more prominent where local and indigenous groups resist government actions that interfere with their ways of living, including access to natural resources. Third, environmental action and discourses associated with eco-frontiers account for geopolitical conflicts. Such conflicts
manifest strongly in local populations where global conservation ideas meet territorial claims. Such claims are ignited by shifts in the borders of protected areas that can be ascribed to the fusion of or contestation between global and domestic forces (Noe 2019).

This forum has referred to protected areas to confirm that the flows of people, matter and money should be understood in relation with geopolitical interests and the struggles to control these flows and to promote certain ideologies. The flow of conservation ideas and practices have geopolitical implications in that they shape the behaviours of states, reconfigure the relations between the central government and local and indigenous people, and also enable powerful groups and individuals to structure the relationships between humans and non-humans as a necessary condition for human survival and the health of the planet.

References

Agrawal, A. 2005a. Environmentality: Technologies of Government and the Making of Subjects. Durham, NC: Duke University Press.

Agrawal, A. 2005b. Environmentality: Community, intimate government, and the making of environmental subjects in Kumaon, India. Current Anthropology 46(2): 161–90.

Albert B. 1992. Indian lands, environmental policy and military geopolitics in the development of the Brazilian Amazon: the case of the Yanomami. Development and Change 23: 35–70.

Albert, B. 2004. Territoriality, Ethnopolitics, and Development: The Indian Movement in the Brazilian Amazon. In The Land Within: Indigenous Territory and Perception of the Environment, eds. P. García Hierro and A. Surrallés, 200–229. Copenhagen: IWGA.

Arnauld de Sartre, X., V. Berdoulay, and R. S. Lopez. 2012. ‘Eco-frontier and place-making: The unexpected transformation of a sustainable settlement project in the Amazon. Geopolitics 17(3): 578–606.
Benoit, M. 1998. Dynamique des parcours pastoraux dans la région du Parc National du W du Niger. *Niamey: Orstom*, 7.

Benoit, M. 1999. Peuplement, violence endémique et rémanence de l’espace sauvage en Afrique de l’Ouest. *Espace, populations, sociétés* 17(1) : 29–51.

Berkes, F. 2012. *Sacred Ecology*, 3rd ed. London: Routledge.

Biermann, C. and Anderson, R.M. 2017. Conservation, biopolitics, and the governance of life and death. *Geography Compass* 11:e12329.

Bluwstein J, Lund JF. 2018. Territoriality by conservation in the Selous–Niassa corridor in Tanzania. *World Development* 101: 453–465.

Boillat, S., J. D. Gerber, C. Oberlack, J. G. Zaehringer, C. Ifejika Speranza, and S. Rist. 2018. Distant interactions, power and environmental justice in protected area governance: A telecoupling perspective. *Sustainability* 10: 3954.

Bottazzi, P., and S. Rist. 2012. Changing land rights means changing the society: The sociopolitical effects of agrarian reforms under the government of Evo Morales. *Journal of Agrarian Change* 12: 528–551.

Bottazzi, P. 2014. *Une écologie politique des territoires tsimane' d'Amazonie bolivienne: "notre grande maison"*. Karthala: Graduate Institute Publications.

Brockington, D. 2002. *Fortress Conservation: The Preservation of the Mkomazi Game Reserve, Tanzania*. Bloomington: Indiana University Press.

Bryant, R. L. 2002. Non-governmental organizations and governmentality: ‘Consuming’ biodiversity and indigenous peoples in the Philippines. *Political Studies* 50: 268–292.
Carrasco, L. R., J. Chan, F. McGrath, and L. Nghiem. 2017. Biodiversity conservation in a telecoupled world. *Ecology and Society*, 22(3).

Chaturvedi, S. 1996. *The Polar Regions: A Political Geography*. Chichester: John Wiley & Sons.

Chester, C. 2006. *Conservation across Borders: Biodiversity in an Interdependent World*. Washington DC: Island Press.

Convers, A., A. Convers, I. Chaibou, A. Binot, and D. Dulieu. 2008. La gestion de la transhumance dans la zone d’influence du parc régional du W par le programme Ecopas. *Vertigo - la revue électronique en sciences de l’environnement*, 4.

Dalby, S. 2002. *Environmental Security*. Minneapolis MN: University of Minnesota Press.

Dalby S. 2014. Environmental geopolitics in the twenty-first century. *Alternatives* 39: 3–16.

Deininger, K. And Feder, G. (2009). Land registration, governance, and development: Evidence and implications for policy. *World Bank Research Observer*, 24(2), 233–266.

Di Stefano, M. 2008. The Organic Citizen: Reimagining Democratic Participation and Indigeneity in U.S. Late 19th and 20th Century Eco-narratives. PhD Thesis, Duke University.

Dodds, K. J. 2014. *Global Geopolitics: A Critical Introduction*. London: Routledge.

Eakin, H., X. Rueda, and A. Mahanti. 2017. Transforming governance in telecoupled food systems. *Ecology and Society* 22.

Eken, M.E. 2019. How geopolitical becomes personal: method acti9ng, war films and affect. *Journal of International Political Theory* 15(2): 210–228.
Fall, J. 2003. Planning protected areas across boundaries: New paradigms and old ghosts. *Journal of Sustainable Forestry* 17(1): 81–102.

Figueiredo, Y. 2006. Aux sources du débat écologique contemporain: l’expérience américaine’. *Revue française d’études américaines* 109: 69–82.

Foucault, M. 2004. *Sécurité, territoire, Population, cours au Collège de France 1977-78*. Paris: Gallimard-Seuil.

Friis, C., C. Friis, J. Ø. Nielsen, I. Otero, H. Haberl, J. Niewöhner, and P. Hostert. 2015. From teleconnection to telecoupling: Taking stock of an emerging framework in land system science. *Journal of Land Use Science* 4248: 1–23.

Gasparri, N. I., and Y. Le Polain de Waroux. 2015. The coupling of South American soybean and cattle production frontiers: New challenges for conservation policy and land change science. *Conservation Letters* 8: 290–298.

Gathii, J.T. 2002. Geographical Hegelianism in territorial disputes involving non-European land relations: An analysis of the case concerning Kasikili/Sedudu Island (Botswana/Namibia). *Leiden Journal of International Law* 581–622.

Giraut, F., S. Guyot, and M. Houssay-Holzschuch. 2004. Les aires protégées dans les recompositions territoriales africaines. *L’information géographique* 4: 340–368.

Giraut, F., S. Guyot, and M. Houssay-Holzschuch. 2005. La nature, les territoires et le politique en Afrique du Sud. *Annales. Histoire, Sciences Sociales*, 60(4): 695–717.

Grimm, E. M. and Lesorogol, C. K. 2012. The impact of land privatization on cooperation in farm labor in Kenya. *Human Ecology*, 40(1), 69–79.

Grove, R.H. 1996. *Green imperialism: colonial expansion, tropical island Edens and the origins of environmentalism, 1600-1860*. Cambridge: Cambridge University Press.
Guyot, S. 2011. The eco-frontier paradigm: Rethinking the links between space, nature and politics. *Geopolitics* 16(3): 675–706.

Guyot, S. 2015. The politics of eco-frontiers: When environmentality meets borderities. In *Borderities and the Politics of Mobile Borders*, eds. A-L. Amilhat-Szary, and F. Giraut, 68–84. London: Palgrave-Macmillian.

Guyot, S. 2017. *La nature, l’autre frontière: fronts écologiques au Sud (Afrique du Sud, Argentine, Chili)*. Berlin: Peter Lang.

Guyot, S., and J. Dellier, eds. 2009. *Rethinking the Wild Coast (South Africa): Eco-frontiers versus Livelihoods in Pondoland*. Saarbrücken: Verlag.

Guyot, S., and F. Richard. 2009. Les Fronts Ecologiques. *L’Espace Politique*, http://espacepolitique.revues.org/index1422.html.

Hale, C. 2005. Neoliberal multiculturalism. *PoLAR: Political and Legal Anthropology Review* 28, 10–19.

Halilou Malam Garba, H. 2009. Estimation des valeurs des biens et services produits par les aires protégées: Cas du Parc Régional du W du Niger. Masters Dissertation.

Hebden, M. 2006. Environmentality: UNESCO Biosphere Reserves, and the Globalisation of Environmental Governance, Master’s Thesis, University of Wales.

Hodgetts, T., Burnham, D., Dickman, A., Macdonald, E.A, and and Macdonald, D.W. 2018. Conservation Geopolitics. *Conservation Biology* 33(2): 250–259.

Hope, J. 2016. Losing ground? Extractive-led development versus environmentalism in the Isiboro Secure Indigenous Territory and National Park (TIPNIS), Bolivia. *Extractive Industries and Society* 3: 922–929.
Hughes, K.A. and S.M. Grant, S.M., 2017. The spatial distribution of Antarctica’s protected areas: A product of pragmatism, geopolitics or conservation need? Environmental Science & Policy 72: 41–51.

Kagoné, H., B. Toutain, D. Dulieu, M. Houinato, A. Boureima, and U. Nocker. 2006. Pastoralism and protected area in West Africa: From conflict to concerted management of transboundary transhumance in the region of the “W” national park (Benin, Burkina Faso, Niger). Bulletin of Animal Health and Production in Africa 54(1): 43–52.

Kevin, A., K. A. Hughes, and S. M. Grant. 2017. The spatial distribution of Antarctica’s protected areas: A product of pragmatism, geopolitics or conservation need? Environmental Science & Policy 72: 4–51.

Krech III, S. 1999. The Ecological Indian. Myth and History. New York: W.W Norton & Co.

Lacroix, L. 2012. Territorialité autochtone et agenda politique en Bolivie (1970-2010). Quaderns-e de l’Institut Català d’Antropologia, 60–77.

Larsen, P. 2015. Post-frontier Resource Governance: Indigenous Rights, Extraction and Conservation in the Peruvian Amazon. Cham: Springer.

Lehm, Z. 1994. The Chimanes Forest: A stage for social conflict (1986–1993), Bolivia. In The Role of Alternative Conflict Management in Community Forest: Trees and People, ed. C. Pendzich. FAO: Working Paper.

Lenggenhager, L. 2018. Ruling nature controlling people: Nature conservation, development and war in North-Eastern Namibia since the 1920s. Basel: Basler Afrika Bibliographien.

Lenschow, A., J. Newig, and E. Challies. 2016. Globalization’s limits to the environmental state? Integrating telecoupling into global environmental governance. Environmental Politics 25: 136–159.
Lerch, L. 2014. The geopolitics of land: Population, security and territory viewed from the international financing of the land survey in Bolivia (1996-2013). *Journal of Latin American Geography* 13: 137–168.

Li, Y. and Jonas, A.E.G. 2019. City-regionalism as countervailing geopolitical processes: The evolution and dynamics of Yangtze River Delta region, China. *Political Geography* 73: 70–81.

Liu, J., T. Dietz, S. R. Carpenter, M. Alberti, C. Folke, E. Moran, A. N. Pell, P. Deadman, T. Kratz, J. Lubchenco, and E. Ostrom. 2007. Complexity of coupled human and natural systems. *Science*, 317(5844): 1513.

Liu, J., V. Hull, M. Batistella, R. DeFries, T. Dietz, F. Fu, T. W. Hertel, R. C. Izaurralde, E. F. Lambin, S. Li, and L. A. Martinelli. 2013. Framing sustainability in a telecoupled world. *Ecology and Society*, 18(2).

Liu, J., V. Hull, J. Luo, W. Yang, and W. Liu. 2015. Multiple telecouplings and their complex interrelationships. *Ecology and Society*, 20(3).

Luke, T. W. 1999. Environmentality as green governmentality. In *Discourses of the Environment*, ed., É. Darier, 121–151. Oxford: Blackwell.

Luke, T. W. 2000. Toward a green geopolitics: Politicizing ecology at the Worldwatch Institute. In *Geopolitical Traditions: A Century of Geopolitical Thought*, eds., K. Dodds and D. Atkinson, 353–371. London: Routledge.

Malette, S. 2009. Foucault for the next century: Eco–governmentality. In *A Foucault for the 21st Century: Governmentality, Biopolitics and Discipline in the New Millennium*, eds. S. Binkley and J. Capetillo. Cambridge: Cambridge Scholars Publishing.

Martino, D. 2001. Buffer zones around protected areas: A brief literature review. *Electronic Green Journal*, http://escholarship.org/uc/item/02n4v17n.
Maxwell, S. L., R. A. Fuller, T. M. Brooks, and J. E. Watson. 2016. Biodiversity: the ravages of guns, nets and bulldozers. *Nature*, 536(7615): 143–145.

Mazel, D. 1998. ‘A beautiful and thrilling specimen’: George Catlin, the death of wilderness, and the birth of the national subject. In *Reading the Earth: New Directions in the Study of Literature and the Environment*, eds. M. P. Branch, R. Johnson, D. Patterson, and S. Slovic, 129–144. Moscow, ID: University of Idaho Press.

Mazel, D. 1996. American literary environmentalism as domestic orientalism. In *The Ecocriticism Reader: Landmarks in Literary Ecology*, eds. C. Glotfelty and H. Fromm, 137–148. Athens: University of Georgia Press.

Miller, D.C., 2014. Explaining global patterns of international aid for linked biodiversity conservation and development. *World Development* 59: 341–359.

Miniconi, R., and S. Guyot. 2010. Conflicts and cooperation in the mountainous Mapuche territory (Argentina). *Journal of Alpine Research* 98(1), http://rga.revues.org/index1151.html.

Moorman, T. 2017. *Dam Politics: Bolivian Indigeneity, Rhetoric, and Envirosocial Movements in a Developing State*. PhD Diss., University of Mississippi.

Morin, F. 1992. Revendications et stratégies politiques des organisations indigènes amazoniennes. *Cahier des Amériques Latines* 12: 75–85.

Mullaney, E.G. 2014. Geopolitical maize: peasant seeds, everyday practices, and food security in Mexico. *Geopolitics* 19(2): 406-430,

Neumann, R. P. 1997. Primitive ideas: Protected area buffer zones and the politics of land in Africa. *Development and Change* 28: 559–582.

Neumann, R. P. 1998. *Imposing Wilderness: Struggles over Livelihood and Nature Preservation in Africa*. Los Angeles: University of California Press.
Noe, C., 2019. The Berlin curse in Tanzania: (re)making of the selous world heritage property. *South African Geographical Journal* 101(3): 379–398.

Oberlack, C., S. Boillat, S. Brönnimann, J-D. Gerber, A. Heinimann, C. Ifejika Speranza, P. Messerli, S. Rist, U. Wiesmann. 2018. Polycentric governance in telecoupled resource systems. *Ecology and Society* 23.

O’Lear, S. 2013. Environment. In *Ashgate Research Companion to Critical Geopolitics*, eds. K. Dodds, M. Kuus, and J. Sharp, 305–322. Aldershot: Ashgate.

O’Tuathail, G. and S. Dalby. 1994. Editorial. *Environment and Planning D: Society and Space* 12: 513–514.

Pacheco, P., W. de Jong, and J. Johnson. 2010. The evolution of the timber sector in lowland Bolivia: Examining the influence of three disparate policy approaches. *Forest Policy and Economics* 12: 271–276.

Paudel, N.S., P. Budhathoki, and U. R. Sharma. 2007. Buffer zones: New frontiers for participatory conservation? *Journal of Forest and Livelihood* 6(2): 44–53.

Payne, D. G. 1996. *Voices in the Wilderness, American Nature Writing and Environmental Politics*. London: University Press of New England.

Ramírez-Álvarez, A.A. 2019. Land titling and its effect on the allocation of public goods: Evidence from Mexico. *World Development* 124.

Redclift, M. 2006. *Frontiers, Histories of Civil Society and Nature*. Massachusetts, MA: MIT Press.

Perrier-Bruslé, L. 2012. Le conflit du Tipnis et la Bolivie d’Evo Morales face à ses contradictions: analyse d’un conflit socio-environnemental. EchoGéo.
Powell, R. C., and K. Dodds, eds. 2014. *Polar Geopolitics? Knowledges, Resources and Legal Regimes*. Cheltenham: Edward Elgar.

Ramutsindela, M. 2004. *Parks and People in Postcolonial Societies: Experiences in Southern Africa*. Dordrecht: Kluwer.

Ramutsindela, M. 2007. *Transfrontier conservation in Africa: at the confluence of capital, politics and nature*. Wallingford: CABI.

Reuber, P. 2017. Geopolitics. In *International Encyclopedia of Geography: People, the Earth, Environment, and Technology*, eds. D. Richardson, N. Castree, M. F. Goodchild, A.L Kobayashi, W. Liu, and R. Marston, 2872–2882. Chichester: Wiley.

Reyes-García, V., J. Paneque-Gálvez, P, Bottazzi, A. C. Luz, M. Gueze, M. J. Macía, M. Orta-Martínez, and P. Pacheco. 2014. Indigenous land reconfiguration and fragmented institutions: A historical political ecology of Tsimane'lands (Bolivian Amazon). *Journal of Rural Studies* 34: 282–291.

Scott, J. C. 1998. *Seeing Like a State: How Certain Schemes to Improve the Human Condition have Failed*. New Haven: Yale University Press.

Shafer, C. 1999. US national park buffer zones: Historical, scientific, social and legal aspects. *Environmental Management* 23(1): 49–73.

Steinberg, P. F., M. E. Kraft, and S. Kamieniecki. 2001. *Environmental Leadership in Developing Countries: Transnational Relations and Biodiversity Policy in Costa Rica and Bolivia*. Cambridge MA: MIT Press.

Thornber, K. 2016. Humanistic environmental studies and global indigeneities. *Humanities* 5(3): 52.
Turner, B. S. 1999. La lutte pour les ressources de la forêt en Amazonie: le cas des Indiens Kayapo, Nature sauvage, nature sauvée? Ecologie et peuples autochtones. *Ethnies-documents*: 115–148.

Turner, M. D. 1999. No space for participation: Pastoralist narratives and the etiology of park-herder conflict in southeastern Niger. *Land Degradation & Development* 10(4): 345–363.

Vermeulen, C. 2004. Community-based wildlife management in Burkina Faso: The experiments of the Nazinga Ranch and W park. *Game and Wildlife Science*, 21(3): 313–326.

Vermeulen, C., A. Lamon, B. Kabore, and A. Lankoande. 2007. Le foncier en pratique. *VertigO - la revue électronique en sciences de l’environnement*, Hors-série 4.

Webber, J. R. 2011. *From Rebellion to Reform in Bolivia: Class Struggle, Indigenous Liberation, and the Politics of Evo Morales*. Chicago: Haymarket Books.

Westing, A.H. 1992. Protected natural areas and the military. *Environmental Conservation* 19(4): 343–348.

Woon, C.Y. 2017. Geopolitics of the environment. In *International Encyclopedia of Geography: People, the Earth, Environment, and Technology*, eds. D. Richardson, N. Castree, M. F. Goodchild, A.L Kobayashi, W. Liu, and R. Marston, 2883–2891. Chichester: Wiley.