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Gorilla Tourism in Bwindi Impenetrable National Park, Uganda: An Actor-Network Perspective

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This article performs actor-network theory (ANT) to examine the development of gorilla tourism at Bwindi Impenetrable National Park, Uganda. We depict a number of translations in which gorillas were designated and enrolled as coexisting with local livelihood practices, as “trophies” in the hunting network, “man’s closest neighbor” in the scientific network, “endangered species” in the conservation network, and finally, through habituation processes, became part of the tourism network. These five versions of the “gorilla” network show how gorillas are shaped in and by the relations in which they reside. By examining Bwindi in terms of ANT’s notions of ordering, materiality, and multiplicity, we not only show how gorilla tourism has gained permanence and popularity, but also draw attention to new ways of thinking about actors and agency in tourism, conservation, and development.

Keywords actor-network theory, Bwindi, gorilla tourism, Uganda

This article introduces actor-network theory (ANT) to reconstruct the history and the processes that led to the development of gorilla tourism at Bwindi Impenetrable National Park (Bwindi after here) in Uganda. Bwindi is located in southwestern Uganda, covers approximately, 331 square kilometers (33,092 ha) of thick forests on a hilly landscape, and contains both montane and lowland forest (Nowak 1995). Bwindi is a forest of international importance, including exceptional biodiversity (International Gorilla Conservation Programme [IGCP] 2008). It is rich in fauna, with extensive lowland-montane forest and several Albertine Rift endemics and globally threatened species, notably the mountain gorillas. It is a home for more than 340 (43%) of the global population (786) of mountain gorillas (African Wildlife Foundation [AWF] 2010). The rest (446) is spread in Mgahinga National park

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After being hunted, researched, and protected, gorillas are now increasingly being gazed upon by tourists. Bwindi has become an important area for gorilla trekking. Other tourism activities have also been developed, including community trails, forest walks, and butterfly and bird watching, and are contributing to the generation of tourism revenues (Ahebwa 2012; Sandbrook 2006). Gorilla tourism is now a key tourist activity in Uganda.

In this article, we show how actor-network theory works by examining gorilla tourism at Bwindi. Our account is based on literature research (including scientific books and journals, but also historical archives and policy documents), and observations and extensive fieldwork by the second author (see Ampumuza 2009) and third author (Ahebwa 2012; see also Ahebwa et al. 2012a, 2012b). The total number of open-ended interviews based on snowball sampling was 92, including village leaders ($n = 43$), parish leaders ($n = 10$), representatives of governmental ($n = 16$), nongovernmental ($n = 3$), and community organizations ($n = 6$), and other members of the local communities ($n = 14$). We also held 14 focus-group discussions with residents in the villages surrounding the park. These groups consisted of 15 to 25 persons each, and discussions were held in the local languages (Rukiga for communities on the Kabale and Kanunga side and Rufumbira for the Kisoro side), making use of translators. We translated, transcribed, and coded all interviews and focus-group discussions.

First, the article introduces actor-network theory (ANT). Second, it gives a short description of Bwindi and the status of gorilla tourism. Third, it analyzes various stages of translation of gorillas in actor-networks focusing on local livelihoods, hunting, science, conservation, and eventually tourism. Finally, we argue that ANT's notions of ordering, materiality, and multiplicity not only facilitate explaining how gorilla tourism has gained permanence and popularity, but also draw attention to new ways of thinking about actors and agency in tourism, conservation, and development.

Actor-Network Theory

Actor-network theory (ANT) seeks to understand complex social situations by following actors and how they associate. ANT disapproves of both metanarratives and generalized theories (Jepson et al. 2011). According to Law (2009a), actor-network theory is a distinct family of material-semiotic tools and methods that treat everything in the social and natural worlds as an incessantly generated result of the web of relations within which they are located. It thus “describes the enactment of materially and discursively heterogeneous relations that produce and reshuffle all kinds of actors including objects, subjects, human beings, machines, animals, ‘nature,’ ideas, organizations, inequalities of scale and sizes and geographical arrangements” (Law 2009a, 141).

As van der Duim et al. (2012, 2013) recently explained, ANT sees the world as composed of continually constructed relations-gone-solid, which can never be defined as purely social, natural, technological, or cultural, but only—and always—as hybrids. The understanding of actor-networks, like in this case gorilla tourism, as composed of human and nonhuman entities relates to a general ontology according to which the “social” and the “natural” are not preexisting entities, but rather constructs that have been separated and divided through a long and ongoing process of purification (Latour 1993; see also Lockie 2007). Society cannot be held in place

with just the social, but is made up through the complex interaction, interweaving, translation, and ordering of multiple actors. This does not mean that ANT denies the unmistakable workings of dichotomies or social structures for that reason. Rather than confirming their position, however, it sees as its task to describe their ongoing construction.

Accordingly, actor-networks are seen as heterogeneous constructs, constantly in action. They are continuously produced, constructed, and negotiated through the networking and seamless intertwining of its actors, uncovering the entangled and relational character of categories otherwise conceived as pure (Barnes 2005). During their constant emergence and retention, actor-networks go through a number of so-called translations (see also Lockie 2007). Translation is a process through which actor-networks are shaped by the connection and association of a broad variety of entities-becoming-actors through which actors attempt to characterize and pattern the networks of the social. Translations attach characteristics to entities and establish (at least provisionally) stable relationships between them, hence building a constraining network of relationships between various network actors (Callon 1986, 212). This basically means that we cannot take anything as given, as everything is an effect of relational practices. Actors are assembled and structures are arranged in a recursive process of networking or translation (Law 1994).

ANT studies have been carried out in diverse ways and not without controversies. In the last two decades ANT has been consistently targeted for being “too light on theory,” “male” and “Machiavellian,” “managerialist” and “apolitical,” and “inconsistent” or “unclear,” and various authors have warned against incorporating material agency (see for these discussions, e.g., Amsterdamska 1990; Collins and Yearley 1992; Fine 2005; Gingras 1995; Jepson et al. 2011; Latour 1999; Law 1999; Murdoch 1997; Pickering 1993; Star 1991). In this article, we propose an understanding of ANT similar to the one forwarded by Law (2007), seeing it as a modest yet important plurality of research undertakings, rather than as a strong and monolithic theory. ANT is not a theory in the usual sense of the word. It does not offer wide-ranging explanations of the world, of why something happens (Law 2007). ANT offers examples, cases, and stories of how things work, of how relations and practices are ordered.

In this way ANT has increasingly received recognition in, for example, rural (van der Ploeg 2003; Wiskerke 1997), development (Verschoor 1997), urban (Farias and Bender 2010), and tourism studies (Franklin 2004; Ren 2011; van der Duim 2007; van der Duim et al. 2012, 2013). These recent studies highlighted and illustrated the multiplicity and heterogeneity (Law and Singleton 2005; Law 2009) of actor-networks, as well as their capacity to enact reality (Mol 1999; 2002; Law 2009a). In that sense ANT reshapes ontology and our understanding of how “the reality we live with is one performed in a variety of practices” (Mol 1999, 74). ANT also entered conservation biology. As Jepson et al. (2011) recently argued, the concept of an actor in conservation biology should also be broadened to include nonhumans, such as species and devices, because they have the agency and ability to influence project goals and outcomes. This is also illustrated by a study of Thompson (2002; see also Law 2009a) about the way elephants at Amboseli National Park in Kenya should be handled. In this case there are the realities of animal behaviorists and conservation biologists at work, which are counterpoised, and these realities “are heterogeneous, combining and enacting the natural, the social, and the political” (Law 2009a, 154). In this article we examine the different realities at Bwindi.

Bwindi Impenetrable National Park

According to the International Union for Conservation of Nature/World Conservation Monitoring Center (IUCN/WCMC) (1994), Bwindi is the most diverse forest in East Africa, with more than 163 species of trees, more than 104 species of ferns, more than 214 species of forest birds, 120 species of mammals, 202 species of butterfly, and 7 species of diurnal primates. Together with the common chimpanzee, l'Hoest's monkey, endangered species of African elephant, African green broadbill, Grauer's rush warbler, Chaplin's flycatcher, African giant swallow tail, and cream-banded swallow tail is the mountain gorilla (United Nations Environment Programme World Conservation Monitoring Centre [UNEP-WCMC] 1994). However, the natural forest is also a former home to Batwa pygmies and is a livelihood "nest" for other surrounding tribal groups—the Bakiga and Bafumbira (Ahebwa 2012; Laudati 2010b). Hamilton (in Wild and Mutebi 1996) indicates that traces of human habitation and manipulation of Bwindi forest date as far back as 4,800 years, which is the earliest evidence of cultivation in tropical Africa. The former forest-dwelling Batwa were primarily hunter-gatherers, while the surrounding densely populated but relatively more sedentary agricultural Bakiga and Bafumbira utilized the forest resources for medicines, fruits, building and craft materials, and other livelihood needs (Namara 2006).

In 1991, the 331 square kilometers of forest was declared a national park, and tourism was introduced in 1992 (Ahebwa 2012). Since 1993, the relatively small park has turned into an internationally recognized and popular tourist hot spot for gorilla trekking. Reports from the private sector (see Wekesa 2008), the Uganda Wildlife Authority (Kimer and Natabaalo 2009), the Minister of Tourism (Olanyo 2007), and international development organizations (USAID 2005), as well as international conservation organizations (WWF 2008), applaud the role of gorilla trekking in Uganda's tourism and conservation efforts. The conservation manager at Bwindi, for example, commented that; "gorilla tourism is the real green Ugandan gold" (Research Interview 2009).

As of 2010, six gorilla groups were available for tourism (Ahebwa 2012). In the same year (2010), eight tourists were allowed to trek each gorilla group per day at a cost of USD 500, USD 475, and about USD 80 for a permit by foreign nonresidents, East African residents, and Ugandans, respectively. But plans are underway to offer discounts on permits, especially in the low tourism business seasons. The gorilla permits revenue makes Bwindi the most lucrative national park in Uganda (Uganda Wildlife Authority [UWA] 2010). Visitor numbers have grown from 1,313 in 1993 to 4,048 in 2002 and 10,124 in 2008 (UWA 2010). The tourism revenues (from park entry fees and gorilla permits) at the park have also increased from USD 898,400 in 2003, to USD 2,052,928 in 2006, and to USD 3,316,900 in 2009 (UWA 2010; Ahebwa 2012).

Enacting Gorillas

Gorilla tourism is not more than 20 years old. But the enactment of gorillas and human–animal interactions has a much longer history. Historical narratives of the former Bwindi forest-dwelling Batwa reveal that gorillas, hunter–food gathering, and farming communities all competed for the forest and highlight some minor incidents of human–gorilla conflicts. The gorillas, the forest, and the hunter-gathering Batwa farming communities with their weapons formed the first—depicted by us

as the *traditional*—actor-network at Bwindi. The Batwa are documented to be the indigenous inhabitants of high-altitude forests of Rwanda, the Democratic Republic of Congo, and southwestern Uganda. Oral histories from elderly Batwa indicate that these forests were known as the “domain of the bells,” named after the bells in Batwa dogs’ collars. The Batwa did not have permanent settlements, but rather lived a “nomadic” lifestyle dependent on the forest for food (hunting bushbucks, pigs, antelopes, and other small animals), gathering fruits and medicinal plants, and carrying out spirit worship in sacred caves, hills, valleys, and swamps. Prior to 1932, local communities at Bwindi were the sole managers of the forest. There were no boundaries and therefore access to the forest was unlimited (Wild and Mutebi 1996). The communities were collecting fruits, hunting wild animals, and extracting other forest resources for livelihoods. In fact, the Batwa had their homes right in the forest and solely depended on forest resources. The Bakiga and Bafumbira were practicing agriculture in and outside the forest and extracted forest resources to supplement their diets and for medicinal plants. They also used the forest for cultural and religious rituals (Wild and Mutebi 1996; Namara 2006).

However, despite the presence of gorillas in the forests of Uganda, Rwanda, and Congo, little was known about them compared to the prominence and popularity they have gained today. The process that led to the contemporary popularity of gorillas and the associated tourism can be traced in the 19th century when they were formally studied and documented. The scientific discovery of the gorilla took place in 1902 when Captain Oscar von Beringe, travelling for the German colonial authorities, found the animal and “with the zealous concern for specimens that was characteristic of the time, they shot at them, killing two” (Adams 2004, 1). After the killing, Captain von Beringe took mountain gorilla specimens to a German laboratory, from where the taxonomists and scientists declared the mountain gorilla as man’s closest cousin, subsequently assigning it a scientific name *Gorilla beringei beringei* after the captain (see Adams 2004). At this point of time, we trace the heterogeneous entities as Captain von Beringe and his troops, their guns, the body parts of the gorilla, the technological means through which the parts were transported to Germany, the laboratory equipment, and the taxonomists as a particular configuration that networked to define the ape as a mountain gorilla. In the process of identifying and naming the gorilla, the taxonomists in Berlin acted at a distance using their scientific “expertise” to distinguish the mountain gorilla from the other gorillas.

Associating the gorilla with man—gorillas share about 97.7% of their genes with humans (Adams 2004)—created a second and different version of the gorilla: the *scientific* gorilla, whose status was completely different from the traditional gorilla in the first network.

The “discovery” of the mountain gorilla attracted more scientists and hunters to the Virunga volcanoes. Between 1902 and 1925 at least 54 gorillas were killed and specimens were taken for scientific study (Schaller, cited in Adams 2004). However, it is not clear how many gorillas were killed for trophy and how many were captured to be taken to zoos abroad. This period was also dominated by colonial hunting adventures in the form of sport hunting. There were also reports of unsuccessful efforts of hunters to keep baby gorillas in zoos, because mountain gorillas did not survive in captivity (Girling 2006). In 1921, Akeley also visited the Virunga to collect mountain gorilla specimens for display in the American Museum of Natural History. He hunted five specimens, and in his experience of collecting gorilla specimens, he associated the gorilla’s behavior with human attributes (Warren 2001).

It is during this time that Akeley redefined the scenario as he persuaded King Albert to establish the Albert National Park in 1925 to protect the animals living in the Virunga Mountains (Warren 2001). The “newly found” status of the mountain gorilla also persuaded the colonial administration to change the management approach at Bwindi; first by gazetted the forest as a reserve in 1932 and later by restricting gorilla viewing on the Ugandan side until the 1950s.

By 1959, Dr. Louis Leakey, one of the prominent paleoanthropologists in the world, entered the stage (Krystek 2002). Dian Fossey requested to tour Leakey’s excavations. In 1963 Leakey guided Dian Fossey through the excavation at a fee of 14 shillings. It is during this trip that Dian Fossey also saw the mountain gorillas. In 1966 Dr. Leakey enrolled Dian Fossey into mountain gorilla research and enabled her to perform accordingly by providing a Land Rover, two tents, and funds. It is with these resources that Dian established the Karisoke Center in Rwanda in 1967. Dian Fossey recruited some local community members to work as guides. She carried out regular visits to the gorillas, guided by a few locals and information from Schaller, who published in 1959 a book entitled *The Mountain Gorilla*. She eventually habituated a group of gorillas at Karisoke in Rwanda. The weaving of various heterogeneous entities (Fossey, Leakey, the local community guides, the forest, Schaller’s book and resources) formed a configuration that long-lastingly enrolled the mountain gorilla into the conservation network (Robbins et al. 2001; Krystek 2002).

However, Dian Fossey was not able to enlist most local people and governments into her preservation ideals. With the booming trophy trade in mountain gorillas’ heads and skulls, Fossey’s preservation ideas highly diverged from the governments and locals’ commercially driven interests to hunt. Here the conservation and hunters networks clearly collided. Motivated by the active conservation principles, Fossey’s team carried out antipoaching patrols and practically confronted poachers. However, Fossey was not very successful, due to lack of resources and support. Eventually, the trophy trade resulted in the killing four gorillas in 1978 from a group that had been researched over a long period by the Karisoke Research Center team (Robbins et al. 2001). Fossey published her experiences with the gorillas and their fate in *National Geographic*. The publication was at a time when powerful international conservation organizations, which were founded in the 1970s, had taken root (Adams 2004). Numerous campaigns and fundraising activities for gorilla conservation were organized in the United States and England. Consequently, the Digit fund was established in honor of Fossey’s favored gorilla, which she had named Digit (Krystek 2002).

The Fauna and Flora Preservation Society (which later turned into Fauna and Flora International, FFI) responded to the Digit Fund and took an upper hand to conserve the gorillas. The fundraising and publicity not only collected money for the Digit Fund but also strengthened the global conservation network and opened the Virunga area to other conservationists. From funds raised, the Mountain Gorilla Project was launched. In 1979, the World Wildlife Fund (WWF) and the Africa Wildlife Foundation (AWF) joined the FFI Mountain Gorilla Project (Warren 2001). Bill Weber obtained funds from FFI to establish the Mountain Gorilla Project in 1979 in Rwanda. At that moment it was clear that the research and protectionist strategy in the Dian Fossey configuration could not build a robust and stable network, thus necessitating another round of translations, which later emerged to be the use of market-based mechanisms through gorilla tourism. However, during the education sessions, the local communities still indicated their preference to clear the forest and use land for agriculture (Weber, 2008). The interest of clearing the forest still

diverged from the conservation interests of the international conservation network. To address these controversies, the global conservationists, the local communities, gorillas, and other materials ended up in an intricate process that eventually developed and implemented gorilla tourism, which has now become so popular in Bwindi and other Virunga Parks.

Toward Gorilla Tourism at Bwindi

The translation of gorillas in a tourism network clearly relates to the gazettelement of Bwindi as a National Park. To upgrade the conservation status of Bwindi forest, but also responding to global conservation discourses, Bwindi obtained the national park status by resolution of the National Resistance Council of 13 August 1991. It became known as Bwindi Impenetrable National Park (Ahebwa 2012). The National Park status meant a change in management system and rules of the game. No humans were allowed to reside in or even access the park, which clearly evoked resentment in those living around the National Park.

Before that, in the 1980s, the European Economic Community (EEC) had already funded the Uganda Forest Department's efforts to streamline management of Bwindi Forest Reserve. During the same period, WWF implemented the USAID funded Impenetrable Forest Conservation Project (IFCP) in support of the Game Department in 1986. The IFCP project was focused on conservation and research on gorillas (Wild and Mutebi 1996). However, this new project did not last long since communities still resisted the conservation project. Wild and Mutebi (1996), for example, note that open conflict arose between the local communities and game guards following the establishment of the WWF Impenetrable Forest Conservation Project in 1986. Community members often directly attacked the game guards, and also showed open hostility during public meetings. Given the resistance against the conservation discourse, the need to enroll local communities into conservation was clear, and this led to the establishment of Community Conservation Programs.

In 1988 WWF recruited CARE International (Wild and Mutebi 1996) to initiate a project Development Through Conservation (DTC) funded by USAID. The DTC under CARE's management was thus named CARE-DTC. In this network CARE International translated the conservation discourse to local communities facilitated by WWF and USAID funds. The project focused on resource substitution, compensation, and environmental education. To further persuade local communities to perform conservation the People and Plants Initiative of WWF, UNESCO, and the Royal Botanic Gardens Kew provided more funding and training of local botanists.

However, the actor-network that had been established by the CARE-DTC program was destabilized in 1991 when Uganda National Parks (UNP) declared Bwindi a national park. Without involving local communities, Uganda National Parks (which later became Uganda Wildlife Authority, UWA) implemented the gazettelement by closing off the park from communities. UNP declared as illegal all hunting and resource collection activities that had been agreed upon in the sustainable harvest program (Namara 2006). People who entered the park to collect herbs and food items were termed as "encroachers," and hunters became "poachers" (Ahebwa 2012; Adams 2004). This action created fractures in the conservation actor-network that had been formed in 1988–1991 through the CARE-DTC project.

Open hostility and intensified harassment of the park staff illustrated fractures in the network. Politicians mobilized local communities to resist gazettelement and

to mount attacks on park staff. At one moment the people set 10 km² of the park ablaze and more fires erupted after gazetting Bwindi. In 1992 alone, 5% of the park was burned (Mujuni et al. 2003). The fires were believed to have been deliberately set by the local communities in retaliation for denying them access to the park. Other subtle forms of resistance were excluding park staff by denying them communal services and sale of foodstuffs, even to those who came from the same villages (Ahebwa 2012). The local communities also constantly accused the park staff of favoring wildlife more than humans (see also Laudati 2010b).

When a fracture in a network occurs, new actors emerge, while other actors pull out, and actors start to enact different roles or even change their status. Indeed, at Bwindi new actors were enrolled, and thus actions and strategies were changed. The International Gorilla Conservation Programme (IGCP), a coalition of WWF, AWF, and FFI, already active on the Rwanda side, swung into action and proposed tourism as a possible instrument that would address the standoff between communities and the Uganda Wildlife Authority (Martin et al. 2011). Tourism was seen as a magic bullet that would address the twin problem of conservation and development (Ahebwa 2012).

Yet the translation process leading to the emergence of gorilla tourism at Bwindi was not linear. It can be traced back to the popularization of gorillas by the writings of Dian Fossey and the successes obtained in Rwanda through an extensive process of mobilization, negotiation, and continuous consolidation. But it also had ideological links with the neoliberal rhetoric that seeks to give nature an economic value and to develop market-based solutions addressing the conservation–development nexus (Ahebwa 2012; Büscher 2008).

In the mobilization phase, the Mountain Gorilla Project team used the funds obtained from the Digit campaign to redefine the problem and to convince other entities (communities and government) that the best strategy to unlock communities from poverty was gorilla tourism (Weber, 2008). Through extensive negotiations, the Mountain Gorilla Project team convinced the park service in Rwanda to use gorillas to brand tourism in the area. The park service that had legal authority at the national level was shown the possibility of not only conserving gorillas but also charging an amount from tourists who wanted to see their “closest cousins” (Weber, 2008). The resulting permit system turned out to be one of the durable materials used to connect the local communities and governments to the network to create a more stable configuration (Ampumuza 2009).

Step by step, various elements were enrolled to form a gorilla tourism network of Bwindi. Gorillas were the first element to be enlisted into the tourism network. In their wild nature, gorillas do not tolerate curious tourists with their cameras. Therefore, gorillas were enabled to perform tourism through a habituation process. The habituation process started in 1991, and in April 1993, a process that actually created two types of gorillas: unhabituated mountain gorillas and habituated mountain gorillas. Gorilla tourism was officially opened with two gorilla groups at Buhoma, Kanungu District. Gorilla tourism at Bwindi started generating tourist revenue by charging each visitor USD 120 for a tourist permit and USD 23 to enter the park (Nowak, 1995).

Another actor enrolled was the U.S. Peace Corps officer in charge of tourism development in the Virunga area, who recruited more Peace Corps members to assist the IGCP, mainly in habituating gorillas and training park guides. Through the training of park guides, various heterogeneous materials were assembled: some local community members, land where they camped, sticks, logs, guns, uniforms to

differentiate them from other community members, and food items. Through extensive negotiations, more community members were enrolled into the gorilla tourism network through the establishment of a community rest camp at Buhoma. During this process, IGCP mobilized funds from USAID, communities mobilized building materials and, labor, and John Dubois provided technical expertise (Ahebwa and van der Duim 2012).

The communities at Buhoma now enact gorilla tourism also as tourist guides, as suppliers of food products, as camp staff, and as conservationists. They have further diversified their tourism enactment by establishing a community trail, orphans group for cultural displays, and artisan crafts, and as a result, Buhoma has turned into a touristic village fetching more revenue to the communities than all other activities combined (Sandbrook 2010). However, it is important to note that even in such a scenario, continuous changes in roles and performances prevail.

Realizing the gorilla tourism situation at Buhoma, several other communities surrounding the park demanded habituation of more gorillas so that they also could obtain the opportunities accruing from gorilla-based tourism. One vivid example is that of the Nkuringo community, who claimed to have donated land to the gorillas which earned them a USAID donation to partner with a private company to establish a high-end Clouds Mountain Gorilla Lodge (Ahebwa et al. 2012a).

Other examples include numerous entrepreneurs who are competing to buy land around Bwindi to tap into the gorilla-based tourism. Various nongovernmental organizations linking to conservation of the mountain gorilla by addressing local communities needs also sprang up. Outside the tourism realms, businesses also started using the mountain gorilla to brand their products. At this point in time, the network has gained durability: predominantly by enrolling tourists with their dollars, travel documents, permits, cameras, and other equipment, but also by including communities in the network through a variety of tourism revenue schemes and direct and indirect employment (Ahebwa 2012). However, the tourism gorilla network has also gained durability as part of a broader multidiscursive ordering process that links science, conservation, and tourism with community livelihood needs (van der Duim 2011). Although the gorilla tourism network has registered considerable success and thus stability, it has also remained fluid (Law 2009), as episodes of instabilities and controversies still burst out. Most notably, in 1999, Interahamwe attacked and kidnapped a group of 14 tourists in Bwindi. Eight of the tourists were killed. The story was featured on *National Geographic* and of course destabilized the gorilla tourism network for quite a period of time. But also scientists, for example, point at the possible health risks for gorillas due to the visits of tourists (Sandbrook and Semple 2006), and Laudati (2010a, 726) describes how Bwindi has become “a product of wilderness, a wild and unspoilt destination marketed to foreign visitors,” arguing “that the ‘new’ relations between people and parks created under ecotourism in Bwindi have in actuality created new forms of control and vulnerabilities.” Last but not least, stability is also endangered by the gorillas themselves as they continue to move outside the park boundaries, where they are sometimes killed, or community members enter the park and kill the gorillas inside the park (IGCP 2011; Laudati 2010b).

Conclusion

By means of the ANT-inspired notions of ordering, materiality, and multiplicity (see van der Duim et al. 2013), this article offers a fresh and unconventional vista

on gorilla tourism. For centuries gorillas at Bwindi have coexisted with and competed for forest resources with hunter–food gathering and farming communities. From the late 19th century onward, however, they have been enacted in different and partly contending networks. This article showed that Bwindi is now a multidiscursive ordering and result of a number of translations in which gorillas were designated and enrolled as coexisting with local livelihood practices, as “trophies” in the hunting network, “man’s closest neighbor” in the scientific network, “endangered species” in the conservation network, and finally “objects of the tourist gaze” through habituation processes and enrollment in the tourism network. These five versions of the “gorilla” network illustrate how gorillas are shaped in and by the relations through which they are connected to a particular network (see also Ren 2011). Each of these networks contains and relates places, physical structures, discourses, and resources that enact the gorillas as unique. In describing practices, materialities, and discourses connected to gorillas in Bwindi, we showed how the different enactments of the gorillas were partaking in constructing the networks. What appeared in this tracing were a number of discourses (on the relation between human and nature, conservation and the role of tourism), places and localities (scientific laboratories, zoos, lodges, villages, the forest, the international tourism market), documents (legislative documents, permits, agreements with communities), objects (guns, dollars, snares, fires), organizations (IGCP, UWA, CARE-DTC), people (park staff, conservationists like Leakey or Fossey, international tourists, the Batwa and other locals), and traditional livelihood, hunting, conservation, scientific, and tourism practices.

Clearly, the five versions of the gorilla network are not mutually exclusive, but different enactments are in various ways entwined. Boundaries, for example, between science and conservation, conservation and development, or conservation and tourism, are constantly overflowed, blurred, and renegotiated, leading to complicated relations of power between and within these networks. Even now that gorilla tourism has taken root and attained a seemingly stable form, entities still change roles and positions and rules of the game continuously change in reaction to new conservation discourses. In these processes, numerous practices, places, and people are transformed, brought to the fore or in some cases “othered” (Ren 2011). All denotations are still present at Bwindi. However, in the complex and interrelated processes of enacting the different versions of the “gorilla” network and the adjoined possibilities and realities, a number of things, people, and practices are “othered”; especially hunting (and to a large extent “poaching”) has been externalized. Related, the role of local communities has changed as the gap between tourism, conservation, and livelihood has at least partly been bridged. Especially in Buhoma, locals increasingly have become actors in the conservation network as gorilla tourism has given them all kind of livelihood improvements (see Ahebwa 2012). What remains are partly overlapping, but also mutual contesting, actor-networks (see Laudati 2010b), which seem to temporarily converge and stabilize, especially by processes of habituation of gorillas, increased livelihood outcomes for local people, and a gorilla visit permit system. But the permanence is fragile, as recent discussions on the side effects of tourism (Laudati 2010a), access to benefits from active pathways (Sandbrook and Adams 2012), tourism-revenue sharing (Ahebwa et al. 2012b), and the Clouds Mountain Lodge (Ahebwa et al. 2012a) illustrate.

This article clearly illustrates that ANT offers new ways of thinking about actors and agency in the scientific fields of tourism, development, and conservation (see also

Jepson et al. 2011). Referring to the latter, just as did Thompson (2002) in his study on African elephants in Amboseli and Jepson et al. (2011) in their account on the Asian elephant, in this article we argued that gorillas are actants. They influence the cause of events due to their relations with local people, hunters, scientists, conservationists, and more recently tourists, and in turn their inclusion in multiple networks changes the gorilla. Similarly, scientific facts and policy documents related to gorillas, fires, permits for visiting gorillas, donor or tourist dollars, or cameras are actors with anticipated but also unexpected consequences. Using a wider conception of actors and agency co-producing tourism, conservation, and development also discloses a number of other issues. Following Law (2009a) and related to Bwindi, we could start looking at legal issues to do with rights and responsibilities related to existing laws and regulations, permits, and land use questions (see, e.g., Ahebwa et al., 2012a), economic concerns about development (see Ahebwa 2012; Sandbrook 2010), scientific debates on the pros and cons of habituating gorillas, and epistemic tensions about the nature of proper knowledge. And of course, we also should look at normative or moral issues. ANT not only reshapes ontology, but also opens the intellectual and political space of ontological politics. This implies the insistence that any particular reality is not destiny (Law 2009a). Our account showed that Bwindi is organized in multiple ways. Gorillas in the traditional, hunting, conservation, or tourism network not only are perceived differently but also are differently enacted in practices (Law 2009b.) These multiple realities hold solid by relating through discontinuity but also by flowing into another. Consequently, we are confronted not only with these different realities, but also with the option and possibility to choose between them or to enact different versions (Ren 2011; van der Duim et al. 2013). We have seen that actor-network theory explores the enactment of realities, the ontological. It shows that practices are also about the doing of goods: “Goods (or bads), knowledges, and realities, all are being enacted together” (Law 2009a, 154). In a broader perspective, as Ren (2011) argues, a sensitivity toward the multiple, sociomaterial and enacted character of a place like Bwindi potentially provides us with a more complex understanding of the relations and entities that construct and enable Bwindi as a place to live, conserve, research, or visit, not only in research, but also in the daily practices of dwelling, managing, conserving, and promoting the area.

References

- Adams, W. M. 2004. *Against extinction, The story of conservation*. London, UK: Earthscan.
- African Wildlife Foundation. 2010. *The population of mountain gorillas in the Virunga Massif*. <http://awf.org/content/headline/detail/4472> (accessed 27 July 2010).
- Ahebwa, W. 2012. *Tourism, livelihoods and biodiversity conservation. An assessment of tourism related policy interventions at Bwindi Impenetrable National Park (BINP), Uganda*. PhD thesis, Wageningen University, Wageningen, the Netherlands.
- Ahebwa, W., and V. R. van der Duim. 2012. The governance capacity of community-based tourism policy initiatives: The case of Buhoma-Mukono Model, Uganda. *MAWAZO J. College Humanities Social Sci. Makerere Univ.* 11(1):192–210.
- Ahebwa, W., V. R. van der Duim, and C. Sandbrook. 2012a. Private–community partnerships: Investigating a new approach to conservation and development in Uganda. *Conserv. Society* 10(4):305–317.
- Ahebwa, W., V. R. van der Duim, and C. Sandbrook. 2012b. Tourism revenue sharing at Bwindi National Park (BINP), Uganda: A policy arrangement approach. *J. Sustain. Tourism* 20(3):377–394.

- Amsterdamska, O. 1990. Surely you must be joking, Monsiour Latour. *Sci. Technol. Hum. Values* 15(4):495–504.
- Ampumuza, C. 2009. *Multi-level partnerships in Uganda's gorilla tourism, power processes and poverty, The case of Bwindi Impenetrable National Park*. MSc thesis. Wageningen, the Netherlands: Wageningen University.
- Barnes, T. 2005. Culture: Economy. In *Spaces of geographical thought*, ed. P. Cloke and R. Johnston, 61–80. London: Sage.
- Büscher, B. 2008. Conservation, neoliberalism and social science. *Conserv. Biol.* 22:229–231.
- Callon, M. 1986. Some elements in a sociology of translation: Domestication of the scallops and fishermen of St. Brieuc Bay. In *Power, action, belief*, ed. J. Law, 19–34, Boston, MA: Routledge and Kegan Paul.
- Collins, H. M., and S. Yearley. 1992. Epistemological chicken. In *Science as practice and culture*, ed. A. Pickering, 301–326. Chicago: Chicago University Press.
- Fariás, I., and T. Bender. 2010. *Urban assemblages. How actor-network theory changes urban studies*. Oxford: Routledge.
- Fine, B. 2005. From actor-network theory to political economy. *Capitalism Nat. Socialism* 16(4):91–108.
- Franklin, A. 2004. Tourism as an ordering: Towards a new ontology of tourism. *Tourist Stud.* 4:277–301.
- Gingras, Y. 1995. Following scientists through society? Yes, but at arm's length. In *Scientific practice: Theories and stories of doping physics*, ed. J. Z. Buchwald, 123–148. Chicago, IL: University Press.
- Girling, A. 2006. *Our story, The Gorilla Organisation*. <http://www.gorillas.org/About/> (accessed 11 March 2009).
- International Gorilla Conservation Programme. 2008. Our work. http://igcp.org/our_work/our_work.asp (accessed 30 October 2008).
- International Gorilla Conservation Programme. 2009. *Mysterious gorilla death in Bwindi under investigation*. http://www.igcp.org/news/news_gorilladeath.html (accessed 11 March 2009).
- International Gorilla Conservation Programme. 2011. *Mountain gorilla killed by poachers in Bwindi Impenetrable National Park, Uganda*. <http://www.igcp.org/mountain-gorilla-killed-by-poachers-in-bwindi-impenetrable-national-park-uganda> (accessed 12 December 2011).
- International Union for Conservation of Nature/World Conservation Monitoring Center (IUCN/WCMC). 1994. *World Heritage nomination*. IUCN Summary, Bwindi Impenetrable National Park, Uganda.
- Jepson, P., M. Barua, and K. Buckingham. 2011. What is a conservation actor? *Conserv. Society* 9(3):229–235.
- Kimer, L., and G. Natabaalo. 2009. *UWA invests more in the gorilla tourist industry*. http://www.monitor.co.ug/artman/publish/features/UWA_invests_more_in_the_gorilla_tourist_industry_80440.shtml (accessed 13 March 2009).
- Krystek, L. 2002. *Dian Fossey and the gorillas of the Virunga volcanoes*. <http://unmuseum.mus.pa.us/fossey.htm> (accessed 13 March 2009).
- Latour, B. 1993. *We have never been modern*, trans. C. Porter. Cambridge, MA: Harvard University Press.
- Latour, B. 1999. On recalling ANT. In *Actor network theory and after*, ed. J. Law and J. Hassard, 15–50. Oxford, UK: Blackwell.
- Latour, B. 2005. *Reassembling the social: An introduction to actor-network-theory*. Oxford, UK: Oxford University Press.
- Laudati, A. 2010a. Ecotourism: The modern predator? Implications of gorilla tourism on local livelihoods in Bwindi Impenetrable National Park, Uganda. *Environ. Plan. D: Society Space* 28:726–743.
- Laudati, A. 2010b. The encroaching forest: Struggles over land and resources on the boundary of Bwindi Impenetrable National Park, Uganda. *Society Nat. Resources* 23:776–789.

- Law, J. 1992. Notes on the theory of the actor-network: Ordering, strategy and heterogeneity. *Systems Pract.* 5(4):379–393.
- Law, J. 2004. *After method: Mess in social science research*. New York: Routledge.
- Law, J. 1999. After ANT: Complexity, naming and topology. In *Actor network theory and after*, ed. J. Law and J. Hassard, 1–14. Oxford, UK: Blackwell.
- Law, J. 2009a. Actor network theory and material semiotics. In *The new Blackwell companion to social theory*, ed. B. S. Turner, 141–158. London, UK: Blackwell.
- Law, J. 2009b. Practicing nature and culture: An essay for Ted Benton. In *Nature, social relations and human needs. Essays in honour of Ted Benton*, ed. S. Moog and R. Stones, 65–79. London: Palgrave MacMillan.
- Law, J., and V. Singleton. 2005. Objects lessons. *Organization* 12(3):331–355.
- Lewis, J. 2000. *The Batwa pygmies of the Great Lakes region*. London: Minority Rights Group International. <http://www.minorityrights.org/?lid=1056> (accessed October 30, 2008).
- Lockie, S. 2007. Deliberation and actor-networks: The “practical” Implications of social theory for the assessment of large dams and other interventions. *Society Nat. Resources* 20:785–799.
- Martin, A., E. Rutugarama, M. Gray, S. Asuma, M. Bana, A. Basobose, and M. Mwine. 2011. Linking development interventions to conservation: Perspectives from partners in the International Gorilla Conservation Programme. *Society Nat. Resources* 24:626–636.
- Mol, A. 1999. Ontological politics: A word and some questions. In *Actor network theory and after*, ed. J. Law and J. Hassard, 74–89. Oxford, UK: Blackwell.
- Mujuni, C. N., K. Nicholson, P. van de Kop, A. Baldascini, and S. Grouwels. 2003. Community-based forest enterprise development for improved livelihoods and biodiversity conservation. A case study from Bwindi World Heritage Site. Uganda. World Forestry Congress 2003, Quebec, Canada, 21–28 September.
- Murdoch, J. 1997. Inhuman/nonhuman/human: Actor-network theory and the prospects for a nondualistic and symmetrical perspective on nature and society. *Environ. Plan. D Society Space* 15(4):731–756.
- Namara, A. 2006. From paternalism to real partnership with local communities? Experiences from Bwindi Impenetrable National Park (Uganda). *Africa Dev.* XXXI(2):39–68.
- Nowak, R. 1995. Uganda enlists locals in the battle to save gorillas. *Sci. Mag.* 267(5205):1761–1762, March 27.
- Olanyo, J. 2007. Tourism body made Shs 3billion from Chogm. *Daily Monitor*. http://www.monitor.co.ug/artman/publish/business_power/Tourism_body_made_Shs3billion_from_Chogm_57054.shtml (accessed 9 December 2008).
- Pickering, A. 1993. The mangle of practice: Agency and emergence in the sociology of science. *Am. J. Sociol.* 99(3):559–589.
- Plumptre, A. J., A. Kayitare, H. Rainer, M. Gray, I. Munanura, N. Barakabuye, S. Asuma, M. Sivha, and A. Namara. 2004. The socio-economic status of people living near protected areas in the Central Albertine Rift. *Albertine Rift Technical Reports* 4. Kampala, Uganda.
- Ren, C. 2011. Non-human agency, radical ontology and tourism realities. *Ann. Tourism Res.* 38(3):858–881.
- Robbins, M. M., P. Sicotte, and K. J. Stewart. 2011. *Mountain gorillas: Three decades of research at Karisoke*. Cambridge, UK: Cambridge University Press.
- Sandbrook, C. G. 2006. *Tourism, conservation and livelihoods: The impacts of gorilla tracking at Bwindi Impenetrable National Park, Uganda*. PhD thesis, University of London, London, UK.
- Sandbrook, C. G. 2010. Putting leakage in its place: The significance of retained tourism revenue in the local context in Rural Uganda. *J. Int. Dev.* 22:124–136.
- Sandbrook, C. G., and W. M. Adams. 2012. Accessing the impenetrable: The nature and distribution of tourism benefits at a Ugandan park. *Society Nat. Resources* 25:915–932. doi:10.180/08941920.2011.644394
- Sandbrook, C. G., and S. Semple. 2006. The rules and the reality of mountain gorilla *Gorilla beringei beringei* tracking: How close do tourists get? *Oryx* 40(4):428–433.

- Star, S. L. 1991. Power technologies and the phenomenology of conventions: On being allergic to onions. In *A sociology of monsters—Essays on power, technology and domination*, ed. J. Law, 26–56. Sociological Review Monograph 38. Oxford, UK: Routledge.
- Stewart, K. J., P. Sicotte, and M. M. Robbins. 2001. Mountain gorillas of the Virungas: A short history. In *Mountain gorillas: Three decades of research at Karisoke*, ed. M. M. Robbins, P. Sicotte and K. J. Stewart, 1–26. Cambridge, UK: Cambridge University Press.
- Thompson, C. 2002. When elephants stand for competing models of nature. In *Complexity in science, technology and medicine*, ed. J. Law and A. Mol, 166–190. Durham, NC: Duke University Press.
- Uganda Wildlife Authority. 2010. *The population of mountain gorillas at Bwindi Impenetrable National Park from 1997 to 2010*. Management report. Kampala, Uganda: Uganda Wildlife Authority.
- United Nations Environment Programme World Conservation Monitoring Centre. 2011. Bwindi Impenetrable National Park, Uganda. <http://www.unep-wcmc.org/medialibrary/2011/06/28/1f6619d0/Bwindi.pdf> (accessed 12 December 2011)
- USAID. 2005. Gorillas key to Uganda's development. Country spotlight: Uganda. http://www.usaid.gov/press/frontlines/fl_apr05/country.htm#3 (accessed 9 December 2008).
- van der Duim, V. R. 2007. Tourismscapes: An actor network perspective. *Ann. Tourism Res.* 34(4):961–976.
- van der Duim, V. R. 2010. Safari. A journey through tourism, conservation, and development. Inaugural address. Wageningen, the Netherlands: Wageningen University.
- van der Duim, V. R., G. T. Jóhannesson, and C. Ren. 2012. *Actor network theory and tourism: Ordering, materiality and multiplicity*. London, UK: Routledge.
- van der Duim, V. R., C. Ren, and G. T. Jóhannesson. 2013. Ordering, materiality and multiplicity: Enacting ANT in Tourism. *Tourist Stud.* 13(1):3–20.
- van der Ploeg, J. 2003. *The virtual farmer: Past, present and future of the Dutch peasantry*. Assen, the Netherlands: Van Gorcum.
- Verschoor, G. 1997. *Tacos, tiendas and mezcal: An actor-network perspective on small-scale entrepreneurial projects in western Mexico*. PhD dissertation, Wageningen University, Wageningen, the Netherlands.
- Warren, A. 2001. *Mountain gorilla*. http://www.lastrefuge.co.uk/data/articles/new_articles/articles_main.html (accessed 12 December 2011).
- Weber, B. 2008. Setting up the Mountain Gorilla project—Attenborough—BBC wildlife. http://www.youtube.com/watch?v=7IIq10IYcVc&feature=results_video&playnext=1&list=PL42FAD56588026A11 (accessed 15 December 2008).
- Wekesa, M. A. 2009. Why Uganda should give tourism high priority. *Monitor*, March 9. http://www.monitor.co.ug/artman/publish/opinions/Why_Uganda_should_give_tourism_high_priority_81192.shtml (accessed 9 March 2009).
- Wild, R. G., and J. Mutebi. 1996. *Conservation through community use of plant resources. Establishing collaborative management at Bwindi Impenetrable and Mgahinga Gorilla National Parks, Uganda*. People and Plants Working Paper 5. Paris, France: UNESCO.
- Wiskerke, J. 1997. *Zeeuwse akkerbouw tussen verandering en continuïteit. Een sociologische studie naar diversiteit in de landbouwbeoefening, technologieontwikkeling en plattelandsvernieuwing*. PhD dissertation, Wageningen University, Wageningen, the Netherlands.
- World Wildlife Fund. 2008. Mountain gorilla conservation contributes to local livelihoods around the Bwindi Impenetrable National Park, Uganda. http://www.panda.org/what_we_do/endangered_species/species_people/our_solutions/binp_uganda (accessed 28 February 2009).