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# Material Pacification: How a Conflict Over Paving Uganda's Tourism Road Got Accidentally Resolved

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## ABSTRACT

Starting from an Actor-network Theory (ANT) inspired relational perspective on object formation and material agency, this article analyses the controversies about plans to pave the Ruhija road through Bwindi Impenetrable National Park (Uganda). Based on interviews, ethnographic observations, and analysis of relevant documents, we examine the multiple ways in which the Ruhija road is enacted and objectified in conservation, tourism, and planning practices. We further show how these different objectifications of the Ruhija road not only led to enduring conflicts but also contributed to postponing the plans to pave the road. We argue that improving traction of the road pacified the conflicts. The partial solidification of the muddiest parts of the road unintentionally matched with the different “road realities” of the actors involved. Our analysis shows how the vibrancy of materiality is always relational, and can only be understood by taking into account the context of their objectification.


## KEYWORDS

Material agency; planning and policy; Ruhija road; Bwindi; material pacification

## Introduction

Infrastructure such as roads are an important aspect in tourism planning and policy processes. Over the years a significant body of literature has emerged focusing on for example developing the most appropriate planning models (Getz, 1986), increasing community participation in tourism planning and policy-making processes (Bello et al., 2016; Murphy, 2012; Simmons, 1994), and sustainability in tourism infrastructure planning (Boers & Cottrell, 2007; Patwal, 2013). In these studies roads are portrayed as objects that facilitate mobility of tourists, connect places, and spur development of tourist destinations (Cárdenas-García & Sánchez-Rivero, 2015; Jovanovic & Ivana, 2016; Khadaroo & Seetanah, 2007). In addition, Kanwal et al. (2020) explain how constructing roads can motivate communities to support tourism development projects.

Within this body of literature, it is argued that roads and other infrastructures have important utility functions. They open up and connect places, and they enable a variety of mobilities. However, Lund and Jóhannesson (2014, p. 456) show that roads can also disconnect places and enact tourist destinations in multiple ways: “the road is

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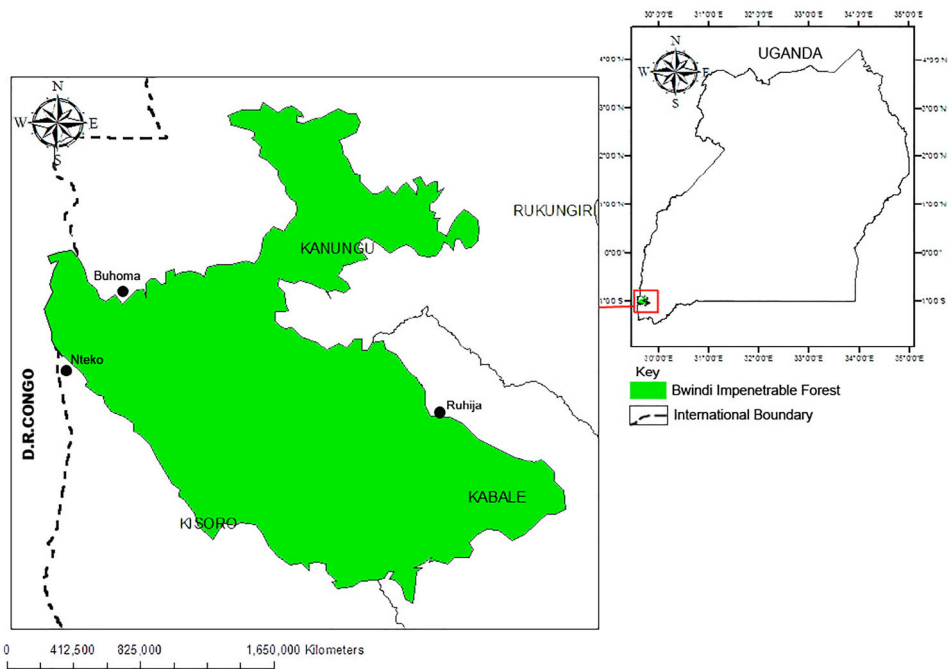
not only a passive construction that fixes traffic through the region, but also it has creative capacities". The creative capacities of roads have also been extensively explored by anthropologists to understand the dynamics of societies (Harvey, 2012). These studies explain that roads are rich with material and social relations conflating the material, social, local, global, politics, economics, subsistence, capitalism, and daily mundane practices (Dalakoglou & Harvey, 2012). In this view, roads emerge as entities that generate particular worlds, and while doing so, they make, and break particular relations.

Following this literature, this article analyses the Ruhija road in Uganda as an object that is enacted in multiple practices (Mol, 2002). In addition, we also draw from discussions on material agency that have emerged in the last 15 years in various disciplines like archaeology (Joyce, 2012; Meskell, 2008), sociology (Pinch & Swedberg, 2008), political science (Bennett et al., 2010; Coole & Frost, 2010), organisation studies (Carlile et al., 2013), and extensively in studies on landscapes, spaces and places (Anderson & Wylie, 2009; Barba Lata & Minca, 2018; Bennett, 2010; Duineveld et al., 2017) and tourism studies. In the latter, it has been argued that materiality such as cheese (Ren, 2011), cigars (Simoni, 2012), coral reefs (Middelveld et al., 2016) are central to the enactment of tourist destinations. Yet that is not all. Materialities can also disrupt tourist activities and schedules as illustrated by particles from a volcanic eruption in Iceland which temporarily halted air travel in most parts of Europe (Van der Duim et al., 2013).

This article contributes to this body of literature by analysing the role material agency in both the shaping and the expiration of the controversy around the paving of the Ruhija road in Bwindi (Uganda). The Ruhija road is an unpaved winding road running from east to west through Bwindi Impenetrable National Park (Bwindi), a forest of 321 square kilometres, located in south-western Uganda bordering the Democratic Republic of Congo to the west (see Map 1).

Currently, the park is renowned for mountain gorilla conservation and gorilla tourism (van der Duim et al., 2014). The Ruhija road was opened up in 1957, before Bwindi forest was declared a national park, following demands for road access from local communities, and to facilitate the gold and timber trade (Ogaram et al., 1995).

Over the years the Ruhija road featured prominently in (social) media, policy reports and public discussions. The road has always received most media attention during the rainy season when it becomes slippery and vehicles get stuck in potholes, negatively affecting communities, tourism and the local economy. In the dry season, the road is more stable and, depending on the intensity of the sun and the time of the day, it can be rather dusty, causing all kinds of dust-related problems. As a result, for years many residents, tourism entrepreneurs and politicians lobbied and protested in favour of paving this road. Around 2011 governmental plans were made to do so. However, proposals and plans to pave this road were met with severe criticism, mainly from (internationally funded) conservationists. Many were against paving this road and suggested to locate it outside of Bwindi (Barr et al., 2015; Tabaruka, 2013). The protests were not unsuccessful and until this day the Ruhija road remains unpaved. Yet, to our surprise by the end of 2018 media attention covering the road controversy dwindled after parts of the road were solidified but not paved. This silencing of the debate sparked our attention. In this paper we will try to deepen our understanding of the road controversies, the demise thereof and the role of material agency in shaping tourism planning processes. By doing so, we will



**Map 1.** Location of Bwindi Impenetrable National Park.

also shed a different light on the seemingly simple question whether this road should be paved or not.

In this article, we combine insights from participant observation, document study and unstructured interviews (45 in total) with key stakeholders such as residents, local leaders, road authority officials, tourism officials and conservationists. Twelve of those interviews were held in small groups ranging from four to eight people during various mobile research events such as drive- or walk-along sessions. These “data” were supplemented with participant observations during meetings, conferences, workshops, social gatherings, drive- and walk-along sessions, conducted by the first author in 2017, 2018 and 2019. In addition, we analysed 104 published and unpublished documents such as local newspapers, tourist blogs, posts on social media (TripAdvisor, Facebook and in WhatsApp groups), government planning documents, policies and policy briefs.

Before returning to our analysis of how fixing a road could resolve a controversy about paving it, we will introduce the theoretical framework that helped us to analyse and deepen our understanding of the role of objects and material agency in social controversies.

## Theoretical framework

Actor Network Theory (ANT) has become widely known, especially within science and technology studies, for its focus on the role of non-humans in the making of the social (Michael, 2016). ANT grants that non-humans are actors too and should be taken into

account in our attempts to understand “society”. Both humans and non-humans are granted agency: they act but they never act alone (Law & Mol, 2008; Mol, 2010). They cannot be separated from the networks in which they are constituted (Latour, 2005). Since “the same” elements (bodies, materiality) can become part of different networks, within ANT reality is not seen as singular but multiple (Mol, 2002). Departing from these more general ANT insights we will now deepen our understanding of material agency and object formation, which will be key to our analysis.

### ***Material agency***

Different schools of thought have conceptualised material agency. For example, Bennett (2004; 2010) emphasises that materials are not static entities, passively waiting for human intervention, but are inherently active and capable of self-reorganisation. This view of material agency is shared by theorists such as Cetina et al. (2005, p. 12) who argues that “non-humans do not just mediate, but themselves propagate practices: practices, (...) comprise human and non-human activities”. In the words of Strengers and Maller (2012; p. 756): “material objects, including technologies, infrastructures and artefacts become active participants in social practice”. Michael (2016), for example, draws on several ANT exemplar cases to demonstrate that it is the particular and contextual relation between humans and non-humans that produce, accelerate, disrupt or even hinder certain scientific practices such as experiments.

### ***Object lessons***

A disease, bush pump or piece of cheese is not a singular, stable object but a particular enactment in a particular time and place. So, when we analyse the multiplicity of the Ruhija road or any other object, we do not speak of “different perspectives on a single object but the enactment of different objects in the different sets of relations and contexts of practice” (Law & Singleton, 2005, p. 342). Indeed, objects “probably have a more or less stable shape in physical space—though the definition of that stable physical shape is likely to depend on relational and interactive work of one kind or another (and it may also be that “abstract objects” do not occupy Euclidean space)” (Law & Singleton, 2005, p. 337).

So, while within certain networks, certain objects might be seen as stable, immutable, clearly delineated, this is more the effect of rendering an object real and essentialising it within a certain network (Fuchs, 2009). In other words: while some objects might be thought of as singular and might look like the same thing in different contexts, they are by definition different if the web of relations in which they are enacted are different. Although some objects can be assumed to have more material stability than others, the ways objects hold themselves together in different contexts cannot be assumed a-priori, just like their agency, it is a relational effect.

### ***Our focus***

To understand the contested nature of the Ruhija road we analyse how the Ruhija road is enacted as different, overlapping and conflicting objects by a range of actors from the

tourism sector, conservation, members of local communities, road engineering and development planning. We start with the assumption that roads are the result of a particular enactment of materiality within a particular network into an object: a road. Materiality is always on the move and any discursive fixation renders something discursively static that in fact is dynamic, vibrant and multiple. How materiality will relate to and will affect and be affected by a person, a community, or policies, can only be understood by observing the actual relations that are established between humans and non-humans.

## **A contested road**

The unpaved Ruhija road is used and debated by locals, tourists, tourism organisations, conservationists, policymakers and politicians. We will now make explicit the different ways the road becomes real, and object of dispute for different state and non-state actors. We will start by describing the relations and related experiences different users have with and on the road. These relations and experiences not only illustrate the many ways in which the materiality of the road affects everyday life and practices, it also makes clear why many have argued in favour of paving the road. Then we will move to the realm of politics and policies, and explain the most prominent yet unsuccessful attempts to pave the road. Finally, we will explain how conservationists argued against and undermined the attempts to pave the road.

### ***Living with the Ruhija road; stories of discontent***

During the rainy season, when the Ruhija road gets in contact with the tyres of the vehicles, it often produces a film of water and gets slippery. In the dry season, the same road disintegrates into dust particles when the wind blows over it or when a vehicle passes. Many of the experiences of users of the road are related to these seasonal stages,

the drive takes at least 10 hours along often shocking dirt roads, while the dust your vehicle throws up chokes the children on the verges. (Steve, 2014)

The road is described by tourists as a “rough road” providing an “African massage” (TripAdvisor, 2014) experienced as:

Sharp jolt to the left, with a less-than-graceful smack into the overland truck window. Then a body-roll to the right as the torso tries to right itself in some beginner belly dancing move. It is more often than not accompanied by a vertical push-up on the seat in front before the back nestles into the seat it originally rested on. (Wilson, 2015; see also Coyle, 2002)

The label “bone rattling road” is also used to refer to the roughness of commuting on the road by car (Sher, 2006). As one tourist puts it: “the spine was (...) thrown out of whack and realigned a number of times” (Crabbe, 2011, p. 1). One of the staff from the Ministry of Tourism Wildlife and Antiquities (MTWA) explained that: “a guest does not pay more than 2000 dollars for a gorilla viewing trip to break their backs on that bumpy road; they need a comfortable trip” (Interview with MTWA staff, 2017). The experiences with the Ruhija road and other roads in Uganda made a tourist advise other potential travellers that they

should fly rather than drive to Bwindi because of the drive “along often shocking dirt roads, while the dust your vehicle throws up chokes the children” (TripAdvisor, 2014).

Drivers of tourist vehicles often have to prepare their trips with the road conditions in mind. For example, when it rains, drivers depart from the nearest town of Kabale at 5am and carry shovels along in case they have to deal with the muddy road. Sometimes they have to reduce speed to almost 10 km/h to go through the mud. If they get stuck, they have to mobilise the community, shovel out the mud, collect tree branches and stones to improve traction before they can move. In the dry season, drivers drive with windows closed to avoid irritation from dust. As a result, they pack plenty of water to quench the thirst produced by the heat from closed windows (interview with tour guide 3, 2018).

Many communities neighbouring the Bwindi forest, use the Ruhija road for livelihood activities such as commuting to health centres, farms and markets. They also trade there by setting up roadside stalls and shops, and some have built their homes along the road. Tea farmers told us that whenever the road is slippery and their trucks get stuck on the road, they sometimes have to walk long distances (about 11 kilometres) to the factory, carrying the large tea sacks on their heads. If they are lucky, they can walk to the less slippery sections of the road, where they can then load the tea onto trucks again (group interview with tea farmers, August, 2018).

During the dry months, dust from the road constantly finds its way into residents' houses, compounds, gardens and other spaces. As a result, they have to continuously clean their houses and wash their clothes. Also, people periodically pour water on the surface of the road to contain the dust, though this only helps for a few minutes. During both seasons, many residents wake up early to make up for the extra time needed to drive slowly on a bumpy or slippery road.

From the interviews and meetings with residents and onsite observations, it became clear the current Ruhija road is risky in two ways. Firstly, vehicles transporting patients or women in labour cannot always get to the hospital fast enough, leading to extra complications or even death in some occasions. Secondly, sometimes the drivers fail to negotiate the sharp bends of the winding road while simultaneously dodging the protruding rocks or potholes on the road surface. As a result, the vehicles sometimes veer off course, over turn or cause an accident.

The users we spoke to were very unsatisfied with the Ruhija road and none of them spoke fondly of it. Some residents even argued that “you cannot call the Ruhija road a road, its rather an ekikorogyero”, which literally means a track for livestock. For years, many of these people expressed their wish for paving the road by means of protest or lobbied for it, and the Ruhija road was a constant point of discussion between politicians and their electorate. These demands were further strengthened by local and international media reports about residents' dissatisfaction with the state of the road (e.g. Mafabi, 2017; Red pepper, 2016; Tabaruka, 2013).

### ***Attempts to pave the unpaved***

Until 2011 the Ruhija road was hardly mentioned in official policy documents. In that year, comprehensive tourism statistics and surveys were published to emphasise the economic importance of tourism to Uganda's economy (Weiss & Masserli, 2012). Six priority roads for



tourism were identified, including the road to Bwindi (GSTA, 2011). The assessment report indicated that the poor road infrastructure to key tourist sites was a major setback to the country's tourism sector.

They specifically cited the World Economic Forum's 2011 TCI ranking of Uganda at 119 (out of 139 countries) in quality of roads (Weiss & Masserli, 2012, p. 16) to justify the need for paving these roads. Both the USAID-STAR paper and the tourism sector assessment report argued that paving the tourist roads would promote tourism development and competitiveness by improving accessibility to the mountain gorillas (GSTA, 2011; Weiss & Masserli, 2012). With the help of the United States Agency for International Development (USAID) and the Uganda Ministry of Finance, the paving of tourist roads became a priority in order to improve infrastructure for sustainable tourism development in the Albertine region. Ruhija was of the roads earmarked to spur sustainable tourism development (GSTA, 2011) and the pavement of this road was included for funding in the 2011/2012 budget of the Ugandan Ministry of Finance and Economic Development.

Between 2012 and 2015, all key tourism plans and policy documents included roads as a key issue and many of the perceived problems related to the sorry state of the road were acknowledged. For example, UWA's, 2013 strategic plan stated that "roads and tourist infrastructure (...) are inadequate, in a sorry state (...) hence giving the wrong institutional image and demoralising staff" (UWA, 2013, p. 19). The Bwindi General Management Plan (GMP) indicated that, "all roads connecting Bwindi (...) are most of the time in a bad state (...) tourist vehicles often get stuck causing delays in their time-bound itineraries especially gorilla tracking" (UWA, 2014, p. 74).

Also Uganda's revised tourism policy 2015, listed "poor road access to and between key tourists sites (...)" (MTWA, 2015, p. 13) as a key weakness of the tourism sector and aimed at "linking all key tourism sites with paved roads and all-weather marram roads where appropriate" (MTWA, 2015, p. 18). In addition, the policy was striving to integrate tourism development planning into physical infrastructure planning and development at central and local government levels. This influence was also evident in the revised National Development Plan II (NDPII) and the Vision 2040 (Chapter 4, section 90), that emphasised improving tourism support infrastructure to efficiently facilitate the tourism industry. However, despite all these plans and debates, the Ruhija road has neither been paved through the forest nor redirected outside the forest.

### ***Conservationists resisting and undermining paving the Ruhija road***

Conservationists also frequently use the Ruhija road when they commute to their offices, field stations to monitor gorillas and the forest, to conduct experiments, and collect samples, as well as to guide visitors. Although they use the road and are also subject to the poor road conditions, most of the conservationists are against paving the road. For them, as one of the biologists explained, the *Ruhija* road is "living matter that is constituted by microbes, mineral matter, water, and air". Other conservationists added that the Ruhija road cannot be separated (by paving it) from the rest of the forest because it is part of the same ecosystem and plays a part in the feeding habits of the mountain gorillas, elephants and other animals, such as earthworms, snails and numerous other invertebrates, either burrowing into it or walking on it.



No wonder the conservationists protested against the plans to pave the Ruhija road. The Uganda Wildlife Authority, responsible for conserving Uganda's biodiversity, and partners commissioned a study questioning "the paving of the impenetrable", and suggested alternative routing for the same reasons and came up with an option outside the park (Barr et al., 2015). In a policy brief Barr et al. (2015) justified the need to maintain the current material conditions of the road. It not only argued that paving the Ruhija road would have adverse effects—such as losing the image of impenetrability and a higher gorilla mortality—but also suggested alternatives. In line with this, Uganda Wildlife Authority's GMP of Bwindi proposed to "lobby with central government to divert and tarmac the Ruhija-Ndego road through the community land (...) instead of going through the park" (Uganda Wildlife Authority, 2014, p. 75). Such inclusions in policy reviews is not surprising given the efforts by various conservationists to influence policy and infrastructure development in support of biodiversity (Kim Bonine et al., 2016).

Moreover, the International Gorilla Conservation Programme (IGCP), who offers substantial financial support for the conservation of Bwindi, gave two options; withdrawal of their financial support if the road is paved; or mobilise more funds if the road is diverted outside the forest (Interview with IGCP staff, 2017). The lobby of the conservationists seemed to be successful as the reviewed 2014 Uganda Wildlife Policy explicitly stated that "any road passing through a game park would only be built after a scientific study has cleared its viability and impact on the park" (Nsereko, 2014, p. 1).

Important to note here is that the conservationists were not unanimously against paving the road. For example, some UWA staff (2018) indicated that the unpaved road disrupted conservation practice by causing delays for the field staff (Uganda Wildlife Authority, 1995; Uganda Wildlife Authority, 2014). Conservationists at the MTWA argued that focusing only on gorillas and the forests excluded humans, thus narrowing the concept of conservation practice (Interviews with MTWA staff, 2017a; 2017b).

## Conflicting realities

During our field work, we observed a road multiple, coenacted by "its" materiality. During normal weather, the road appeared as a stable patch of compacted earth with a rough gravel surface on the most part of the road. On other parts of the road, the gravel surface was washed away leaving gullies and potholes and several patched and bare soils. The roughness of this materiality was inescapably felt by all who drove or cycled on this road. During the dry season, upon contact with sun and wind, the same road surface disintegrated into dust particles. On rainy days, we also observed other configurations. The road surface was dotted with holes of varying sizes and shapes, with ants, earthworms, and other insects burrowing in and out, and others such as giant snails moving about on the road surface. In addition, the texture of the road during rainy seasons was also different. The surface felt soft to the feet, necessitating careful movement as it got slippery.

We noted that all these material realities were constantly present in the lives of those that either make use of the road or communicate about it in policy documents, protests and media. ANT sensitised us not only to observe the agency of the Ruhija road, but also how agency relates to its multiplicity. Based on our road observations, and the ways in which people dealt with the Ruhija road and communicated about it, we discerned a

couple of different roads: a tourist road, an invisible road, an ecological road, a “non” road, a technical road and a political road and it is the difference between some of these enactments that sparked the controversy. In this paper we focus on the three versions of the Ruhija road—the tourist road, the non-road and the ecological road—that stood out and dominated all discussions about the road.

### ***The tourist road***

The first road we observed is the tourist road that winds through the mountainous landscape of Southwestern Uganda, and promises an encounter with mountain gorillas. This road entangled with the tourist vehicles, driver’s skills to manoeuvre the bends, the tourist’ bodies, and weather to enable or hinder tourist movement to Bwindi. This road worked in relation with weather to enable tourists’ movements, and thus enhanced their itineraries, especially during the moderate weather conditions. However, during the heavy rains, the same road worked with the vehicle tyres, to hinder or slow movement thereby disrupting the tourist’s itineraries. In one case, the winding road made it difficult for the driver guide to negotiate the bends leading to an accident. The sight of an overturned 4 × 4 vehicle, the spilled fuel mixed with blood on the dirt road surface, and pieces of metal not only made apparent the agency of the road in terms of hindering tourists’ mobility and disrupting itineraries; but also revealed how risky the roads could be.

This road was enacted in several tourism-related activities such as planning for tourism infrastructure development, budgeting processes, tour driving, and assessment surveys and reporting. In these activities, the Ruhija road is a road that enables transporting tourists to and from gorilla tracking in Bwindi, which is Uganda’s most important source of tourism revenue. Partly this road is constituted by ongoing calculations of the economic value of the road based on revenue earned through tourism and the trade of goods such as tea (interview with UNRA staff, 2017; interview with local leader 1 & 2, 2018). Paving the tourist road is seen as an investment in Uganda’s tourism industry, not paving it would imply prolonging the many problems tourism entrepreneurs and tourists experience in using the road in its current state.

### ***The non-road***

The non-road was observed to be non-motorable because of its slipperiness and rough surface. The residents often encountered this road as a mere “semblance of road, but actually, (...) it is ekikorogyero” (interview with community leader 1, 2017). “Ekikorogyero” refers to the paths normally used by cattle as they are herded to the fields. We name this second enactment of the Ruhija road: the non-road. Paving this version of the road would turn the ekikorogyero into an actual road. This road included the painful absence of not being paved. At stake here is not the country’s economy, or tourism in general, but the lives and livelihoods of many communities who depend on the road in one way or another.

### ***The ecological road***

The ecological road was observed in terms of the variety of life that came forth from the road surface, mainly on rainy days. Some people we talked to further explained that the

ecological road is living matter—a composite of “microbes, mineral matter, water and air” (interview with a biologist, 2017). Others added that the road in its unpaved current shape further ensures survival of other animal life, such as gorillas who also constantly cross the road as they go about their daily lives. They clarified that by “forcing” motorists to slow down due to the rough surface, the road is safe for gorillas and other animals because it reduces the risk of road kills from speeding vehicles (interview with UWA staff 2, 2018; interview with IGCP staff 1, 2017).

However, much as the ecological road seemed to support life, there were concerns that this road also disrupts ecological life processes. By dissecting the park at the Kitahurira corridor the road created a great difference between the northern and southern blocks of the forest (Butynski, 1984). As a result, most ecologists argued that paving this road would separate it from the rest of the forest and affect the ecosystem in a negative way, since this road is part of the same ecosystem (interview with IGCP staff 1 & 2; 2017).

### Consensus materiality

Following Mol’s (2002) argument about the body multiple, the multiple realities of the Ruhija road cannot be dismissed as perspectives from different people; they are realities in their own right. Yet, at the same time, these realities are not exclusive; they also overlap in particular ways. While paving would reduce the tourist travel time and discomfort while travelling on the Ruhija road (NRM Media, 2016) and improve “the quality of human life” on and next to the road for many, the ecological road as it is now recognised by conservationists, would be destroyed. The other way around: doing nothing would “conserve” the ecological road, but would prolong its disruptive agency for many. An end to this controversy is therefore hard to imagine, yet it was reached.

In November 2015, a presidential candidate from the most popular opposition party was reported to have spent about 40 minutes helping to push a lorry that was stuck on the Ruhija road (Tumushabe & Rumanzi, 2015). This interaction with the road, in relation to his scheduled rally “prompted him to “immediately” refocus his message of the day to condemning the incumbent on poor road infrastructure” (Monitor team, 2015, p. 22). A few days after media reports on the materiality of the Ruhija road, the Executive Director of the Uganda National Roads Authority (UNRA) received a directive from H.E. the President to visit Bwindi and the entire Kanungu area to assess the situation (Monitor team, 2015). Upon receiving this directive, UNRA staff visited the area with a team of other politicians from the national, district and local level representatives (interview with local leader 2, 2017). During this visit the UNRA director also got stuck in the mud.

We all got stuck at Mpungu for more than three hours together with the UNRA director and her Kampala team. It was getting dark with no hope of pulling through (...) (interview with political leader, 2017)

This prompted the UNRA to immediately dispatch equipment, and engineers to “fix” the muddy section of the road by improving traction without paving (Interview with Roads Authority staff 1, 2018). The road was fixed by first excavating out all the existing inferior material (chalky soil); then filling the excavation with a layer of rock fill [big stones]. And lastly, adding gravel, and compacting the surface to improve traction. This

is because rocks and gravel do not easily get slippery after heavy rains (Interview with UNRA field staff 2, 2018). After the intervention, vehicles no longer got stuck at the Mpungu spot on the Ruhija road. Consequently, the frequency of articles in local print media and social media dropped from weekly reports around November and December 2015 to none in the same period of 2016.

Here the object lessons already learned by other ANT scholars can help us to understand why the conflict ended (at least for now). Fixing certain parts of the road made a difference in each of the three road realities. Although not paved, the tourist road as well as the non-road improved. For the conservationist the improvements still matched with their idea of an ecological road. While paving would harm the road, this way of fixing kept the ecological road intact. The material changes kept the road alive as a mutable mobile, comparable to the bush pump as described by Annemarie Mol:

This object is best understood as a mutable mobile. It is mutable in a variety of ways and for a variety of reasons. For instance, over time (and indeed geographical location) its physical shape changes, as do its component parts. This is because, when a pump breaks, villagers tend to replace its components with whatever happens to be at hand: bits of old tyres, convenient tree branches [...] ‘The pump’ keeps going, but the work that is keeping it going is largely unremarked, and (very important in the present context) that work has the effect of reconfiguring the relations that keep the pump going. (Law & Singleton, 2005, p. 338)

In maintaining the adaptive capacity of the road’s materiality and not solidifying it in an almost irreversible way (by paving it) tamed its agency in all networks, but saved its productive role in that of the conservationists.

## Conclusion

In many studies, transport infrastructure is taken for granted as a fixed object that facilitates travel to and from particular regions, places or tourist destinations or is seen as a passive object of controversies, discussions, policies and plans (Beeco et al., 2013; Boers & Cottrell, 2007; Donázar et al., 2018; Gardner, 2017). In this article, we moved away from this perspective and departed from theoretical and conceptual notions from Actor-network Theory on material agency.

We first studied the multiple ways in which the Ruhija road in Bwindi (Uganda) is enacted and got objectified by different stakeholders. The Ruhija road is singular in name only. The “same” materiality—a road—was enacted by different human actors affected by the materiality into different, sometimes overlapping and sometimes contradicting, objects. Matter matters, yet it matters differently depending on the relation in which it is enacted.

Second and related, we showed how different objectifications of the Ruhija road not only led to enduring conflicts, but also contributed to the postponement of the implementation of the proposed plans to pave the road. We specifically focussed on the role of material agency in the constitution of these conflicting differences and related communications of discontent. This discontent was partly embedded in the way the materiality is enacted into a specific object. Simply put: the normative attitudes towards the road were part of the enactment of the road. Those who enacted the material as an ekikorogyero, or a non-road only, were clearly dissatisfied with the state it was in,

while others, such as many of the conservationists we interviewed, were happy with the unpaved road. There is a clear relation between the way the road is enacted as a road or non-road and the way it is seen as a problem or not. For most actors involved and in most media discourses, the road was seen as a problem, as something that needed to be changed into a “real” road by paving. Only for some conservationists, for whom the road was “living matter”, keeping the road as it was, was more important than the disadvantages of an unpaved road.

Third, we argued that this conflict was almost accidentally resolved by improving traction without paving the road. The ability of the road to disrupt the movement of politicians led to the initial prompt action, which resulted in fixing some of the most problematic parts of the road, which made the road less dangerous and stopped the road from reminding people about its dangerous existence. As a result, the conflict got pacified. This material pacification is the result of an undeliberate interference that improved all road realities and did not undermine or was at odds with anyone of them.

In terms of theoretical contributions, our observations helped us to rethink and reconceptualise a particular form of non-human agency: material agency. A kind of agency that transcends enabling the movement of tourists (Beeco et al., 2013; Denstadli & Jacobsen, 2011) or attracting tourists (Lew, 1991); to an agency that, among others, allows multiple observations, blocks, renders possible, and influences (Latour, 2005) plans, policies and practices. We showed how materiality is not only vibrant but also how this vibrancy is always relational, and can only be understood when one takes into account the context in which materiality is objectified and co-shapes practices and policies.

Although we were obviously not able to interview the road, our observations, interviews and document analysis made it clear that the agency of the road in our case is undisputed. Its disruptive forces in relation to some (e.g. tourists and local communities) and its productive forces in relation to others (e.g. wildlife) made this clear. The road was opened up by humans and technologies and in turn, the road disrupted technicians, politicians, tourists, residents and other people’s movements. In terms of agency, the Ruhija example clearly demonstrates Michael’s (2016, p. 69) argument that “the agency of non-humans enables the agency of humans which enables the agency of non-humans and so on”. In addition, the ability of the road to disintegrate into dustiness and slipperiness; to get vehicles stuck, placed the road on district and national planning and policy agendas. Hence, we argue that the process of planning and making policies on tourism infrastructure development was co-produced by the Ruhija road, tourism planners and policy makers, and the technologies involved, among others. Therefore, inspired by Jepson et al. (2011) we discern the road as a conservation and tourism actor in this respect.

Our analysis also revealed that materiality itself is indifferent to particular objectifications (as a road, not a road, living matter). Whether or not the materiality is enacted as a road or a non-road, all actors involved were and are dealing with the limitations it imposes on their commutes. Simply put: the car of the ecologist who believes that the road is part of nature gets just as stuck as the car of the resident who believes the road is not actually a road. So how materiality is observed as an object does not always necessarily relate to its agency. Sometimes, it relates to particular contexts and people’s opinions making it more complicated than a matter of paving or not paving. Finally, by providing detailed examples of the situational agency of materiality, we hope we contributed to a body of literature that goes beyond illustrating or proving

that matter matters in social sciences, humanities and tourism studies, but that deepens our insight into how it matters in a non-singular world where humans and non-humans relate in vibrant and often surprising ways, infinitely.

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