

Retrieving intangibility to avert human-driven bio-diversity loss: The case of Thathe sacred forest, Phiphidi waterfalls and Lake Fundudzi, northern South Africa

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Abstract

Human-driven biodiversity destruction are responsible for significant and sustained heritage losses in Africa. In Venda, northern South Africa, biodiversity losses are eroding the existence of sacred places. Such places define the essence of indigenous people's identity and well-being. We highlight how developments in Venda such as mining and agricultural expansion since apartheid times have destroyed biodiversity in the broader landscape, undermining efforts to reduce hunger and poverty. Thathe forest, Lake Fundudzi and Phiphidi waterfalls are central to Venda mythology and legends, origins and identity and are key towards conserving current biodiversity and heritage losses.

Keywords: biodiversity loss, Venda, cultural landscape, myths, legends, Thathe forest, Lake Fundudzi, Phiphidi waterfalls

Introduction

Sustainable Development Goals (SDGs) are about the future, and how any generation perceives such. We quote a French Jesuit priest, scientist, paleontologist, theologian, philosopher and teacher, Pierre Teilhard de Chardin (1881-1955) who said; "The future belongs to those who give the next generation reason for hope". Pierre Chardin was Darwinian, and writer of several influential theological and philosophical books. Though considered by his peers as controversial and in some cases his works condemned by the Roman Catholic Church's Congregation for the Doctrine of the Faith, we however appraise his approach to palaeontology, which, in our view, were far ahead of his time. Pierre Chardin was part of the discovery of Peking Man (*Homo erectus pekinensis*) - a subspecies of *H. erectus* at Zhoukoudian northern China in the mid-1920s (Aczel 2007).

As a Darwinian scholar, Teilhard de Chardin perceived the universe in evolutionary terms, seeing it constantly moving shifting towards a state of greater complexity and higher levels of consciousness. Within this evolutionary process, he discerned several changes, or transitions. According to Teilhard, the beginnings of life on earth and the emergence of human consciousness are two critical thresholds in this process. These changes or transformations trigger new stages in a continuous process of development. He saw the world as a single continuous process of development, what he referred to as "universal interweaving", with diverse levels of organization, and each entrenched in earlier levels, and its emergence is to be seen as the actualization of what was potentially present in earlier levels. Teilhard de Chardin also saw no sharp divide in the word between humanity and other animals, but rather, a single evolving entity, as mutually interconnected events, where one sees a natural progression from matter to life to human existence to human society. We adopt this perspective in our perception of biodiversity – the biological variety and variability of life on earth – as a measure of variation at the genetic, species, and ecosystem level that is now primarily human driven. As some scholars have demonstrated, population size and growth, along with overconsumption, are significant factors in biodiversity loss and soil degradation. They warn of a "ghastly future of mass extinction, declining health and climate-disruption upheavals" that threaten human survival because of ignorance and inaction (Bradshaw et al. 2021). One cannot not detach humans from biodiversity as humans have biological origins

and are species in themselves. Even the World Heritage Convention *Operational Guidelines* (UNESCO 2019) acknowledge this in the identification of sites and landscapes for world heritage listing.

There are consequences in ignoring the values ascribed to sacred landscapes, and how these are not only threatened by modern development, but also poor approaches to conservation. Focusing on Venda people in northern South Africa, we demonstrate that sacred landscapes are slowly being eroded and decimated by modern industrial development and population expansion. The importance of these places is slowly being forgotten as people are failing to see the connection between cultural heritage and a sustainable future (see Gonçalves et al. 2004; Sinamai 2018).

Cultural heritage, bio-diversity and sustainable development goals

Current discussions on biodiversity-related environmental change point to what has been referred to as the Holocene extinction (IPBES 2019a, b), and these are informed by human accelerated deterioration of terrestrial and marine environments from the 1950s onwards. Ultimately, the damage incurred on the ecosystems undermine targets that have been set by the United Nations, especially the Sustainable Development Goals (SDGs) aimed towards addressing hunger, poverty, health, water, urbanisation, climate change, and the environment, encompassing land and oceans. While conservation of biodiversity including cultural heritage is vital (see e.g. Tshiguvho 2008), there is need to acknowledge local ways of knowing and indigenous worldviews. Cultural heritage is glaringly absent from discussions on sustainable development despite its crucial importance to societies and the broader acknowledgment of its importance at national level.

It is evident that globalization, urbanization and climate change are threatening cultural heritage and weakening cultural diversity. To address this, measures to promote the safeguarding of cultural heritage within the global development agenda, where concrete actions are needed to integrate cultural heritage conservation with the sustainable development goals, are required. We however, lament the absence of cultural heritage in the formulation of Sustainable Development Goals and the targets that these goals seek to meet. We also encourage mainstreaming cultural heritage into this agenda, which includes biodiversity. Sustainable Development Goal 15 (SDG 15), for example, seeks to “Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss”. This is achieved by promoting efforts to end deforestation and restore degraded forests by promoting the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally. The same applies to ending desertification by 2030 through efforts towards restoring degraded land and soil. To help achieve this, local and national planning is a requirement for state parties, and for the former, local and indigenous communities are fundamental. Although only one goal has been singled out here to highlight aspects of biodiversity, Sustainable Development Goals are integrated, indivisible, and are treated in this paper as such. SDG 15 links very well with the Aichi Biodiversity targets and strategic plan (2021-2030) which seek to address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society; reduce the direct pressures on biodiversity and promote sustainable use; improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity; enhance the benefits to all from biodiversity and ecosystem services, and, enhance implementation through participatory planning, knowledge

management and capacity building (CBD 2021). We also acknowledge the African Union Agenda 2063, which ascribes to these values.

Research context

This paper is based on the research among the Venda people of northern South Africa (Gottschling 1905). The area in which they live, though now subsumed by the broader Limpopo Province, is also generally referred to by the same name. Venda people reside on the north-eastern foothills of the Soutpansberg mountains (Loubser, 1992, 2007) (Figure 1).



Figure 1: The location of Venda, northern South Africa. The research focuses on Thathe and surrounding areas on the foot of the Soutpansberg mountains (Map, courtesy of Brenda Makanza).

They are descent or descendant communities (for definitions, see Marshall 2002, 2009) ancestrally linked to some of the traditional places including royal palaces, sacred sites and cultural landscapes found in the area (Hanisch 2008; Pikirayi 2011). Venda is well-watered, moist and fertile, but may also be extremely hot and dry.

The Venda are not a monolithic ethnic group, but rather a “composite” entity, comprising culturally different, but related groups or clans. Their origins are discussed in oral traditions (Stayt 1931, Van Warmelo 1932, 1942, 1960), history and archaeology (Hanisch 1994, 2008, Locher 1989, 1991; Huffman and Hanisch 1987.) and are identified as descendants of many heterogeneous groups and clans, the major ones which include the Singo, Ramabulana, Tshivhase, Mphephu and Mphaphuli. You also have the Ngona, Nelwamondo, and Nethengwe clans. The Ngona and Mbedzi are considered original inhabitants of Venda, while the Twanamba, Nyai, Tavhatsindi, Lembethu, Singo, Vhalaudzi (Vhasenzi) and Lemba are regarded as ‘from outside’. However, according to Schapera (1953: 64), these groups may

have been formed for the benefit of the ruling elite, due to the feuds between respective royal houses. Some Venda claim origins from the northern part of the southern African sub-continent and seem to have interacted with Sotho-speakers from south-eastern Africa (see e.g., Van Warmelo 1974). Although oral traditions acknowledge smaller infiltrations to the Soutpansberg region coming from the north of Limpopo River, two migrations stand out. The Ngoni and Tavhatsindi clans arrived first, followed by the Singo, who became rulers of the Venda people (Stayt 1968, Magoma 2014, Ralushai 1977; Ralushai and Gray 1977). The land of Ngoni was later settled by Karanga-Rozvi clans from Zimbabwe, post 1700 AD (Beach 1980). They briefly conquered the Venda and set up a state ruled by the Singo dynasty. These migrations are attested in Venda language, which has elements of both Sotho and Karanga (Loubser 1992, 2007).

Myths, legends and cultural landscapes

In this paper we employ an approach to the understanding of cultural landscapes, highlighting how legends and myths are critical to biodiversity preservation and to a sustainable future. The landscape of Venda is rich with legends and myths central to the heritage of indigenous people. Here, legends and myths are not merely 'stories', but rather, a reality accounting for the formation and evolution of most of the objects that made-up their landscape, and continue to shape their identity. Legends and myths influence and continue to configure Venda worldview and are central to their sustainability.

There are numerous understandings of the term myth (see e.g. Berk, 2015; Eliade, 1971; Herskovits and Frances, 1958; Locher, 1956; Malinowski, 1984; Usman, 2018). According to Baldick (2015), a myth is "a kind of story or rudimentary narrative sequence, normally traditional and anonymous, through which a given culture ratifies its social customs or accounts for the origins of human and natural phenomena, usually in supernatural or boldly imaginative terms". Baldick (2015) notes the wide range of meanings around the term, which he divides broadly into 'rationalist' and 'romantic' versions. The 'rationalist' version views myth as false or unreliable stories or beliefs. The 'romantic' version views myths as a superior intuitive mode of cosmic understanding. As such, myths are regarded as fictional stories with deeper truths, expressing collective attitudes to fundamental matters of life, death, divinity, and existence. Myths are usually distinguished from legends in that they have less of an historical basis, although they seem to have a similar mode of existence in oral transmission, re-telling, literary adaptation, and allusion.

Most scholars, though, agree that myths are explanations of cultural and worldviews of particular group of peoples, and have gods as principal characters, and their purpose is to explain sacred beliefs (Musehane, 2012). According to Cave (1993), human beings use myths as instruments to understand their purpose and meaning in the world. According to Usman (2018), myths are traditional narratives from which a particular group of people makes sense of their existence and also find meaning of certain natural and supernatural occurrences. Myths therefore are legendary or traditional stories that usually concern an event, with or without using factual explanations, and which describe some rites, practices and natural phenomena. As Berk (2015) indicated, a human world without myth is void since cultural richness have been passed on from one generation to the other through myths. In some worldviews, myths constitute "events which human beings consider as absolutely essential for their existence and as giving meaning simultaneously to the present, the past, and the future" (Locher, 1956: 169).

Legends, according to Baldick (2015), are accounts or stories handed down from the past through tradition especially those that are popularly regarded as historical although not verifiable. Such accounts usually consist of exaggerated narratives of some actually or possibly historical person—often a chief, king, queen or deeds of heroes. Like myths, legends are stories coming down from the past. As such, legends may be regarded as myths. Legends focus on human beings with the primary purpose of glorifying the ancestral history of a group (Musehane, 2012). According to Musehane (1987), legends entail stories wherein traditional narratives or other important persons are presented as true.

The Venda worldview derives from their mythology – the collection of myths and legends pertinent to them – and mythography, how they package them to make sense of their cultural circumstances (see e.g. Mafukata 2015). However, mythology and mythography exhibit gaps in knowledge resulting in critical information missing in transit, due to our readings and understandings of the anthropology, archaeology or history, especially the intangible components (see e.g. Sinamai 2018). Intangible heritage is mostly found in stories that are told through myths and legends and thus inaccessible to such disciplines. Myths and legends must be considered as vital to one's heritage, and how such is sustained.

Myths and legends are inscribed within specific places or landscapes. Such landscapes are the physical illustration of how people have related to and transformed their environments (see e.g. Pajouh et al. 2013), in ways meaningful to them, how they manipulated and influenced change, impacting on themselves and the environment. Therefore, the relationship between humans and landscape is an everlasting one and the foundation of all other relations in human society (Liu 2008). This is how sustainability should be understood.

There are three major sacred sites or landscapes central to Venda worldview, namely Thathe forest, Lake Fundudzi and Phiphidi waterfalls (Figure 2). Legend says half-humans collected water from the waterfalls, travelled into adjacent forest for rituals, and then proceed to the lake for rain petitioning. This cultural landscape is under serious threat due to human-driven biodiversity loss. Such biodiversity losses to Venda worldview and identity is a major threat to Sustainable Development Goal 15 (Life on Land). Significant colonial and corporate developments in mining and agriculture, though touted as investments generating employment among local and indigenous people, will not reduce poverty reduction (SDG 1)

and hunger (SDG 2).

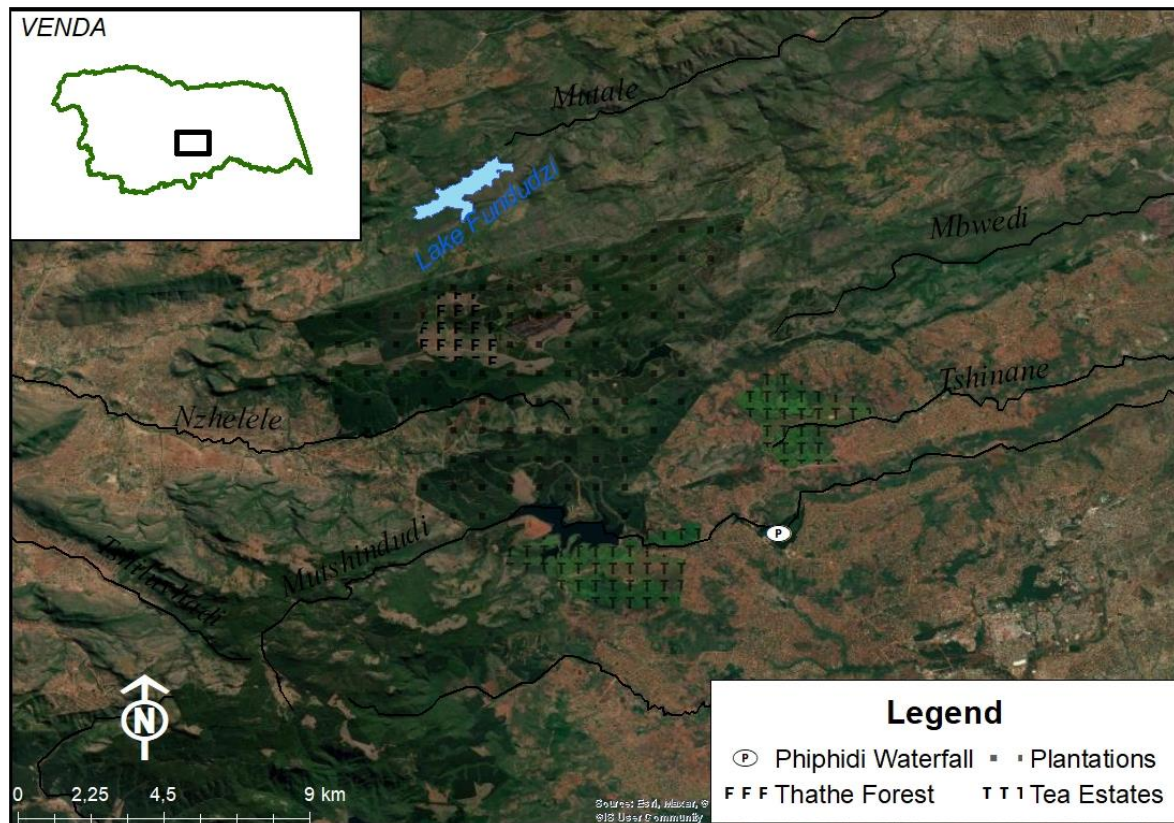


Figure 2: The region of Venda showing the location of Thathe forest (F), surrounded by pine and eucalyptus plantations, Lake Fundudzi, the tea estates, and Phiphidi waterfalls (P) (Map, courtesy of Brenda Makanza)

Biodiversity loss in Venda

Since apartheid times, Venda has increasingly experienced, systematic, sustained and increased human-driven biodiversity loss, due to massive development pressure. According to the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services report (2019), biodiversity losses from disturbances caused by humans tend to be more severe and longer-lasting. We show how this is happening in Venda around Lake Fundudzi, Thathe forest and Phiphidi.

Thathe Forest

Biodiversity

According to Sikhitha (1999), indigenous forests provide a plethora of basic needs which are either consumptive or non-consumptive. Indigenous forests of Venda have sacred sites which have always been protected by particular clans from time immemorial. These clans will carry the traditional secrets and folklore related to the continuation of ancient rituals and ceremonies. Sacred sites are therefore integral to the people of Venda such that almost every village has a sacred site.

Thathe sacred forest is one of the few remaining largely undisturbed moist forest in southern Africa (Netshiungani, 1981; Munyati and Sinthumule, 2014; Araia and Chirwa, 2019) (Figure

3). The original extent of the sacred forest of Thathe before commercialisation remains unknown. The forest is currently about 3807 hectares (Sikhitha, 1999) and is surrounded by timber plantations as well as the villages of Vondo, Tshidzivhe and Tshilungwi. Thathe sacred forest, is according to Netshiungani (1981) a botanical paradise characterised by annual rainfall of approximately 1500 mm (Munyati and Sinthumule, 2014). The forest falls within the northern mist belt, hence is frequently covered by mist throughout the year (Mucina and Rutherford 2006). The species found therein are of subtropical provenience, with tall and diverse trees, which are multi-layered, have a well-developed canopy and understory layers (Mashau 2007; Mucina and Rutherford 2006; Sinthumule and Mashau, 2020).



Figure 3: Thathe forest, showing the giant hardwoods, ferns, undergrowth and creepers (Image copyright of SA-Venues)

Giant hardwoods such as yellowwoods, ferns, thick undergrowth and creepers characterise the flora. *Cryptocarya liebertiana* (tropical quince) is the most common. Other conspicuous trees include *Drypetes gerrardii* (ironwood), *Rawsonia lucida* (forest peach), *Combretum kraussii* (bushwillow), *Ficus natalensis* (Natal fig), *Podocarpus latifolius* (yellowwood), *Xymalos monospora* (lemonwood), *Cussonia spicata* (cabbage tree) and *Oxyanthus gerrardii* (Whipstick Falsoquat). The forest is impenetrable and dense, attracting several bird species, including the chorister robin-chat (*Cossypha dichroa*), the white-starred robin (*Pogonochla stellate*), the Knysna turaco (*Tauraco corythaix*), the yellow-streaked greenbul (*Phyllastrephus flavostriatus*) and the orange ground-thrush (*Geokichla gurneyi*) (Sikhitha, 1999).

Cultural significance

The name ‘Thathe’ derives from the Venda word ‘thatha’, meaning to “chase away”. One Venda legend says sometime in the past a lion lived in this forest. Because the lion used to

chase villagers herding cattle and collecting firewood, it was named Nethathe, meaning “the chaser”, or “the owner of Thathe”. This must have been a reincarnation of a Venda chief by the same name. Thathe is also the place where the sacred python or the python god that resides in the nearby Lake Fundudzi, disburses some of its time. This sacred forest is also guarded by a lightning bird, Ndadzi, and is home to the half-spirit, half-human predatory and apparently clumsy people. Although the forest is rich in firewood, no person dares to collect wood for fear of being traumatised by spirits residing there. It is also believed that if one fetches wood from Thathe, such wood can transmute into a harmful snake (Stayt, 1931; van der Waal, 1997).

Thathe forest was used by the Netshidzivhe family to bury their chiefs and to venerate their ancestors. According to Venda traditions, before his death, Nethathe told his people that he must be buried in the cave where he stored his herbs and charms. He also ordered that all children and future generations of Thathe, whether male or female, to be buried in Thathe rainforest, while the remains of chiefs were to be placed in the cave. Up to this day married women whose surname is Nethathe, Netshidzivhe or Netshitangani are buried in Thathe rainforest. This is why the forest is regarded as sacred. It is also believed that the forest is guarded by the spirit of Khosi Nethathe, who reincarnates as a white lion. It also helps bring rain, but such rain may not fall if trees from the forest are cut. Nethathe himself was a healer, diviner, herbalist and magician, and this is why legend says he was able to shapelift (in therianthropic terms) himself into a white lion.

Appropriation



Figure 4: Commercial plantations around Thathe forest. Note the scars timber harvesting is inflicting on the environment (Image courtesy of Munyadziwa Magoma).

Between 1945 and 1985, Thathe forest was reserved for forestry by the apartheid regime in South Africa. This saw the emergence of timber plantations (Figure 4). This commercialisation of Thathe interfered with the common property tenurial system customary to the custodians of Thathe. The people resisted, setting fire on plantations uprooting of pine seedlings. Such acts of resistance, were allegedly caused by the spirits of Thathe, to avenge the imminent destruction of the sacred forest. Despite the resistance, the South African government continued appropriating the forest. However, in 1949 following a plea from headman Netshidzivhe, the government agreed to preserve parts of the forest (Netshiungani et al. 1981; van der Waal, 1997). The preserved area, which currently is what Thathe forest is entirely surrounded by pine plantations. The original extent of the sacred forest before commercialisation remains unknown.

Another development that took advantage of the loopholes of the environmental injustices under apartheid and the exploitation of traditional leadership is mining within Thathe forest, which, since 2014, has been protected by the South African government under the National Heritage Resources Act of 1999. Unknown to local communities, a mining company, the Mamma Metal Group, has been prospecting the forest of precious minerals such as coal, diamonds and gold since 2018, and with the approval of the South African government. Local communities are apparently unaware of this approval, and are keen to stop the development project to save the forest.

The South African Government confirmed issuing a prospecting right to Mamma Group in August 2018, valid for five years, to prospect for heavy minerals. The main concern is how far these mining claims are from sacred areas, and whether the remnants of the forest is buffered sufficiently from such high impact developments. Typical of corporate behaviour in South Africa, the mining company has apparently consulted few individuals, proceeded with prospecting without the approval of the Tshivhase Royal Council traditional leadership, and, in the absence of an environmental impact assessment. What remains uncertain is the environmental management plan. Of further concern is that the mining licence was in evident breach of the National Heritage Resources Act, 25 of 1999, as there is an overlap between the more than 13 000 hectares earmarked for prospecting and the heritage buffer zone that was demarcated in 2014. Some indigenous Venda traditional leaders have indicated that although the demarcated heritage site begins in Fondwe village and stretches all the way around and covering the mountainous range, the miners will still be mining 20 kilometres from the sacred places, overlapping with the sacred heritage, impacting on both Thathe and Lake Fundudzi. This area also has indigenous plants found nowhere else in in the region. The effects of mining are obvious: it would pollute the rivers that flowed down from the mountain into the adjacent Kruger National Park. It would deplete water from the Thathe dam and Lake Fundudzi. This would intensify the suffering in a region ravaged by drought. Already, Venda is experiencing the negative effects of mining, e.g., the open-cast Tshikondeni coal mine operated by heavy minerals mining company Exarro, had permanently destroyed the soil, water and housing within the surrounding community. Traditional leaders blame the local community for allowing it. The same applies to the open-cast Vele coal mine in the Limpopo valley, close to the World Heritage site of Mapungubwe (Figure 5).



Figure 5: The destructive effects of open cast mining in Venda. This is Vele mine, close to the world heritage landscape of Mapungubwe. The discovery of minerals such as coal in much of Venda has led to the destruction of not only the environment, but also people's livelihoods (Photo, courtesy of Innocent Pikirayi)

Phiphidi Waterfalls

Cultural significance

Also referred locally as *Zwifho zwa Guvhukuvu*, *La Nwadzongolo*, *Zwifho zwa Vhutanda*, and *Zwifho zwa Thathe* (Ross 2017), are Phiphidi waterfalls (Figure 6) located within another forested area, some 8 kilometers from Lake Fundudzi (see below). Its traditional custodians are the Tavhatsindi of the Ramunangi clan, who also claim to have originated from there. At Phiphidi, the river, the falls and surrounding forest are all considered sacred. The most sacred setting in the area is the rock above the plunge known as Lanwadzongolo, and the pool below the waterfall, called Guvhukuvhu (Ramunangi, 2008). There are complex laws and rituals which govern the behaviour that must be observed at Phiphidi waterfalls by each and every person, including the custodians. It is believed that the area is inhabited by ancestral water spirits, to be appeased annually through ritual offerings. There are accounts of Venda traditional clothes left on the rocks to dry and of people who have heard sounds of 'malombo' – consecrated musical performance reserved for ancestral rites – coming from Phiphidi

waterfalls (Ramunangi, 2008).



Figure 6: Phiphidi waterfalls and associated forest (Image courtesy of Munaydziwa Magoma)

Appropriation

With Venda proclaimed as a Bantustan in 1979, the voices of smaller clans were silenced, and some sacred sites destroyed. Phiphidi waterfalls were affected, when the apartheid government decided to open it for tourism. Roads, pathways, picnic sites, toilet blocks and fences were constructed and tourists allowed access. These developments were, however, being constructed on sensitive land and *inter alia*, in breach of its taboos and rules. These falls are central to the Ramunangi clan's relationship with ancestral spirits. This custodial responsibility, however, is not legally recognized, limiting the Ramunangi's ability to protect Phiphidi from tourism development. Lanwadzongolo — one of the site's most sacred areas — was recently destroyed as part of a road-building project, irretrievably defacing the surrounding sacred forest. The Ramunangi have been denied full access to the site to perform rituals and custodial duties. The clan is now seeking legal redress to regain full access to the falls and receive official custodial recognition (Ramunangi 2008).

Agricultural developments (Figure 7) nearby Phiphidi waterfalls and forest have further resulted in land clearance, which in turn eroded and degraded more sacred places. In 1973, Chief Tshivhase made available land for tea plantations on the banks of the Mutshindudi River (Steenkamp 1994). Although this development was apparently so successful that many assumed Venda might become the 'Ceylon of Southern Africa' (Adjei, 1995), this was attained at the expense of sacred places including burial sites desecrated in the process. Indigenous people had to be displaced to make way for this development, and relocated some distance away. The tea estate presently covers some 584 hectares and within it are sacred

sites and burials, which although spared from destruction, remained isolated due to the relocation of the custodians.



Figure 7: Some of the tea estates in Venda. Note the groves inside the estates, which are the remnants of some of the some of the sacred sites of the people who were displaced by this development.

Lake Fundudzi

Geomorphology

Immediately below and adjacent to Thathe forest is a sacred waterscape – Lake Fundudzi (Figure 8). It is approximately 3 kilometers long and 1 kilometer wide and covers an area of about 144 hectares, a maximum depth of 27 meters, at an elevation of 865 meters above sea level. It is at least 10,000 years old. The Mutale River channel enters the lake through the middle of its bed, running in a south-west to north-eastern direction. Lake Fundudzi is unique. It is a landslide dam, with no obvious outlet (Janisch 1931; Costa and Schuster, 1988).



Figure 8: Lake Fundudzi a landslide dam on the Mutale River. Please note the tail end of the lake, which shows considerable sedimentation, which is due to ecological degradation of its catchment, as a result of commercial plantations and human settlement (Map, courtesy of Munyadziwa Magoma).

Cultural significance

Lake Fundudzi's unique geomorphic formation is captured in Venda mythology. According to one Venda narrative, Lake Fundudzi was formed when a leper passing through the village was denied food and shelter and in displeasure, cursed the villagers which triggered landslides causing flooding on the Mutale River. Villagers drowned and a lake was created in the process (Odhiambo and Manuga, 2017; Steyn *et al.*, 2010). The villagers who drowned in the lake became half-human people and still live therein. Villagers living near the lake claim hearing during early mornings, screams and bellowing of people and cattle, reminiscent of drowning (Steyn *et al.*, 2010). The custodian of Lake Fundudzi claims sighting half-human people in the lake. During rain-petitioning rituals, these half humans are said to move out of Lake Fundudzi to fetch water from Phiphidi waterfalls, and bring it to Lake Fundudzi. This water then evaporates and generates rainfall.

Central to the mythology of Lake Fundudzi is the white python spirit of fertility that resides there. In ancient times, this python was said to copulate with other people's wives, visiting them at night while they were asleep. It was however caught in the act by a woman who rebuked it. The snake was upset and fled and hid deep in the lake. This triggered a terrible drought, which only ended when the woman waded into the lake to copulate the python. To prevent subsequent droughts, young maidens were sacrificed yearly in the lake, satisfying the python's lust. The Venda *domba* dance (girls' initiation ceremony) performed at the lake is in commemoration of the python god (van der Waal, 1997). Myth say a white crocodile lives in the lake. When Venda kings died and their remains were placed in the lake, this crocodile coughs up a stone, which the new king had to swallow. The spirits of the ancestors of the

Venda people are believed to reside beneath Lake Fundudzi and are guarded by this crocodile (Ratiba 2015).

Central to the mythology of Lake Fundudzi is the white python spirit of fertility who is said to reside deep in Lake Fundudzi. In the past, young virgin maidens were sacrificed at Lake Fundudzi in honour of this python (van der Waal, 1997). In recent past, Domba ritual dance is performed at Lake Fundudzi in respect of this python, regardless of the Domba ritual dance, there are other rituals performed at Lake Fundudzi in honour of this python to ensure the land is fertile and that there is peace (Ratiba, 2015).

Threats

There are major threats to Lake Fundudzi especially developments within its broader landscape. Since the 1990s, the catchment of Lake Fundudzi has been subjected to afforestation, gum-tree (*Eucalyptus*) plantations, human settlement and dry land cropping (Birkhead et al. 1997; see Figure 8, above). These activities have resulted in forests continuously replaced by croplands and orchards, inserting considerable pressure on the catchment (Jodha et al. 1992; Khorommbi, 2001). In addition, some hillsides have been cleared to prevent wildfires from encroaching eucalyptus plantations (Khorommbi, 2000, 2007).

Lake Fundudzi is facing increased supply of sediment and other pollutants from its catchment due to increased human settlement and agricultural activity (Figure 9). Local communities are also using portions of the lake inundated during the rainy season for vegetable production. Nearby houses are developing fruit orchards (Khorommbi, 2001), further generating erosion and silting, which may result in the disappearance of the lake (van der Waal 1997).



Figure 9: Human settlements encroaching Lake Fundudzi (Map, courtesy of Munyadziwa Magoma).

Discussion

In Venda, human-driven biodiversity loss is triggering forests, waterscapes and other ecosystems towards depletion, fragmentation or degradation. Forests are rapidly being cleared, and waterbodies silting, following increased settlement activity, including agriculture, exploitation of natural resources, and road and building construction. This leads to the destruction of existing natural and cultural habitats, with the consequence that local and indigenous communities are losing food resources and living spaces. Thus, there are economic and societal effects on human society. What is central about Phiphidi waterfalls, Thathe forest and Lake Fundudzi is their sacredness. Famine is the outcome in the event these are desecrated or destroyed. Thathe forest is regarded as a regenerative ‘spring’ for Venda farmlands and other areas east of the Soutpansberg and this traditional knowledge has been central since time immemorial. This is how it speaks to sustainability of livelihoods and the Venda. Thathe forest is a source of a number of rivers, and though miniscule, may be equated to the Congo or Amazon rainforests, which act as ‘lungs of the planet’, drawing critical carbon dioxide and oxygen in and out respectively (see e.g., Cox et al. 2013). As such, Thathe, which we regard here as the ‘lungs of Venda’, is vulnerable to climate change.

There are possible solutions to human-driven bio-diversity loss in Venda and how these may help in promoting sustainable development goals. An obvious approach would be to call upon the assistance of conservationists to assist with documentation, environmental monitoring and conservation of the forest and the lake. In this regard, the forest would be protected from unnecessary exploitation, while disincentivizing behaviour that contributes to habitat loss and degradation. This, in our view, has not been done.

Sustainable development, defined by The International Institute for Sustainable Development (IISD) as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”, which, in effect, involves planning that seeks to promote growth while preserving environmental quality, is central in areas affected by intensive agriculture and large-scale mining operations. This must be considered when creating new farmland and human living spaces. Current developments within and on the precincts of Thathe forest do not speak to sustainability – given the negative effects of such developments elsewhere in Venda such as the recently closed coal mine at Tshikondeni. There is also no recourse to traditional knowledge systems in safeguarding sacred landscapes such as the forest and the adjacent lake.

It is evident, from our interactions with these landscapes that the sacredness of Phiphidi, Thathe and Lake Fundudzi developed as a corpus of Venda worldview upon realising how vital these are to the well-being of the Venda. Such landscapes are localised ecosystems which also regulate human societies such that radically interfering with their operations undermines indigenous worldview irretrievably. This is happening in Venda and in our view, a macrocosm of how the world is losing tropical rainforests to sustained and systematic human impact.

Laws and policies preventing the destruction of cultural heritage must always be enforced. This is not always the case in South Africa. Lake Fundudzi and Thathe forest are protected landscapes, as declared by the South African government in 2014, through the Heritage Resources Act, 25 of 1999. Environmental impact assessments are necessary to understand the impact of human presence and settlement on the landscape, but their recommendations are not always available to the public. Myths and legends are central in conserving the biodiversity of these sacred places (see e.g., Mukul et al. 2012). However, while ritual and

ceremonial sanction is vital in warding off local communities and indigenous people away from destroying these places, this does not offer protection from large-scale development.

Rising population also creates an economic demand. As a result, these landscapes are under serious threat from mining and agriculture. According to the South African National Environmental Management Act, it is a serious offence to commence environmental impact assessment without authorisation. However, existing laws and policies must help promote sustainability. Venda traditional leadership seeks to conserve biological diversity of the landscape through comprehensive ecosystem management and through equitable sharing of the benefits of tourism between local and indigenous communities. While this is seen as a way of reducing poverty among these communities, it requires their consent and full participation in the planning and management of development projects. This is evident in the safeguards local and indigenous communities were offered by the Interim Protection of Informal Land Rights Act of 1996, ratified by two court judgements in 2018. In both judgements, traditional leadership had sided with developers without consulting their communities but the courts ruled that “informed consent” of entire communities was paramount. It is regrettable traditional leaders such as the Tshivhase Royal Council are not in a position to stop the development, because some of them have been implicated in wrongdoing in the matter.

According to Sinamai (2018), sacred landscapes require holistic approaches when it comes to conservation. For the site of Great Zimbabwe, he demonstrates that these landscapes are intimate spaces, susceptible to cultural erosion if the focus is on material culture only. Mainstream conservation theories and processes, developed from Western heritage traditions, seem inappropriate. There are unquantifiable connections between people and place, which if eroded, may result in memory erasure and ultimately, the un-inheriting of heritage places. With regards to Thathe and Lake Fundudzi, the use of myths and legends is central towards understanding why communities have conserved these and sustainably. Myths and legends of the Venda have cultural sanctions and prohibitions whose values serve to conserve sacred places, which are also homes of ancestors.

Conclusion

Despite the threats to its human-driven biodiversity, Venda’s autochthonous people find considerable meaning and power in their heritage, both natural and cultural. The Venda landscape is replete with considerable social memory, which anchors individual people, groups and communities and their memories to broader, societal understandings of their past. Venda culture is embedded in an environment with its own histories and sense of the past. Our paper shows how in such a world characterized by a disparate approach to development, and negative impact on indigenous communities, knowledge of Venda local histories, myths and legends is imperative. Already, with the threats to the forests and waterscapes in the heart of Venda, it is highly unlikely that some sustainable goals relevant to the protection of heritage, will be attained as planned.

As pointed out at the onset, Sustainable Development Goals (SDGs) are about the future, and how any generation perceives such. With regards to Pierre Teilhard de Chardin (1881-1955), we ask whether modern developments in Venda are in a position to give the present and next generations reason for hope. The answer is clearly in the negative, given the human-driven biodiversity losses incurred as a result of development not addressing environmental losses and reducing hunger and poverty. Though the environmental circumstances have radically

changed since the existence of *Homo erectus pekinensis*, we wonder what gave hominins reasons for hope, with the universe constantly shifting towards a state of greater complexity. What Teilhard de Chardin identified in this shift towards greater complexity was the development of an ecosystem that was primarily human-driven. What he was not able to identify then was how potentially destructive such ecosystem would be.

What we always fail to understand is how the so-called human nature interactions over time have created premises on which the environment is conserved to serve not only the present, but also future generations. This is key to realise most if not all the sustainable development goals. With regards to Venda, there are consequences in ignoring the values ascribed to sacred landscapes and threatening them with developments such as mining and large-scale agriculture.

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This is a scoping paper on re-imagining heritage in Africa, examining it from the context of cultural losses inflicted by commercial mining, agriculture and other modern infrastructural developments. The authors would like to thank the elders as well as the ancestors of Venda for challenging us to think differently, and in the process, appreciate the challenges they are going through. We thank in particular Ndinae Ramasiwela for assisting with the surveys and the late Chief Ntsandeni Netshiavha of Lake Fundudzi for sharing his wisdom with us.

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