

9. Climate action and Ecomuseum practices in Africa: the Ngorongoro Conservation Area Experience

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At the 2021 Ecomuseums and climate action meeting I reflected on my experience of the Ngorongoro Conservation Area (Northern Tanzania, from now on NCA), which had started with interviews¹ with Mr. Andrew Lowassa, Senior Cultural Officer at Ngorongoro Conservation Authority, the management body of Ngorongoro (from now on NCAA). One of ecomuseology's main objectives, which is shared with the NCA, is sustainable development, pursued through preservation and education. The idea behind this chapter is that NCA and ecomuseums share some foundation values, ideologies and ecomuseum practices. However, it happens that the sustainability mission of organisations like NCA become compromised, due to the global dynamics and local high stakes that characterize the governance of natural resources. As we are going to see through the chapter, in the experience of Ngorongoro conservation area, climate action occurs at the expenses of local communities, whose livelihoods and survival inside and outside the CA are under threat, while tourists' access to the natural site is under no discussion.

The Ngorongoro Conservation Area is located in the Ngorongoro Crater, where savannah and grassland landscapes (extremely valuable ecosystems) are home to a multitude of wildlife, so its conservation is of paramount importance; it was recognised in 1979 as a UNESCO World Natural Heritage Site. In 2010, UNESCO inscribed the NCA as a property on the list of World Heritage Mixed Sites. The area is also home to the Maasai community, nomadic pastoralists who have maintained their

¹ conducted in 2019 in Arusha. Follow-up phone interviews in 2021 and 2022.

traditional culture and livelihoods, and other indigenous groups, whose livelihoods and cultural traditions are protected within the boundaries of the NCA, which also has a rich archaeological heritage.

Interviews with the NCA Authority Officer on the NCA's cultural contribution and its caring, albeit controversial, relationship with indigenous communities, as well as the organisation's pursuit of sustainable development goals, stimulated my research on the adoption of ecomuseum practices in the Ngorongoro Conservation Area. Using interviews and with the support of secondary data and literature reviews, I researched ecomuseum-inspired practices in Ngorongoro and found that these practices could help the institution undertake sustainable and community-sensitive climate actions. Extracts from the interviews are quoted in inverted commas throughout the chapter.

The conservation area has particular characteristics that match the ecomuseum ideology. It is a complex conservation institution that, from its origins, has gone beyond environmental protection to become a multi-inheritance cultural institution supporting the local community with the mission of sustainable development. This integrated approach to conservation could stimulate further reflection on environmental protection and the useful application of ecomuseum-inspired practices in Africa. Environmental protection in Africa inevitably has an impact on indigenous communities, and by problematising the relationship between environmental policies and indigenous communities, this chapter makes an interesting contribution to the climate action debate. Although the vast continent has no officially recognised ecomuseums, scholars have analysed some cultural and environmental protection institutions within the framework of ecomuseology. Robben Island in South Africa, for example, which has been a leper colony, a psychiatric hospital, a defence training base and a prison for anti-apartheid activists, is recognised as a UNESCO World Heritage Site. The site encapsulates the country's complex history and its controversial relationship with Apartheid. It is not an official ecomuseum, although Corsane (2006) identified it as such. Another example is the Berber Ecomuseum of Tafza in Morocco (Rogers, 2012), although it is now closed according to the Trip Advisor webpage. The discourses and practices of ecomuseology, especially those concerning the relationship

between territory and local community, can help overcome the limitations of climate action as currently conceived on the African continent.

The origins and mission of the NCA

Since the 1950s, several game reserves and conservation areas have been established to protect African wildlife, primarily for white colonizers leisure hunting activities. This took place in what was the ancestral Maasailand, namely that land extending from central Kenya to central Tanzania. Communities were deemed a threat to the integrity of the area and therefore pushed away from recently established conservation schemes (Århem, 1985; Child, 2012). In an early understanding of the pursuit of what would become sustainability goals, in 1959, the NCA was purposely separated from the Serengeti National Park to maintain a balance between pastoralism, conservation, and tourism,² and to protect the community, as well as the environment and wildlife (Århem, 1985). Mr. Andrew Lowassa, Senior Cultural Heritage Officer at NCA explained this as:

“The NCA is a conservation area, the difference with a National Park is that the land uses are multiple, not just nature conservation. We allow the community to live there. In addition, the [community representatives, organised through the] pastoral council has an environmental committee for tourism. The function of this specific committee is to make sure that the local people carry out tourism activities, in cooperation with the conservation area. In our protected area, tourists can visit local traditional houses. Within the protected area, there are campsites owned by the local community. All this ensures that local communities benefit from conservation activities through tourism.

Unfortunately, the land rights that indigenous communities believe they have over their ancestral lands are rarely recognised. The lack of enforcement of these indigenous ancestral rights, rights that existed long before the creation of conservation areas or national parks, puts communities like the Maasai at risk. As a result, by the end of the 20th century, they owned less than two-thirds of their ancient territory. Colonial land policies in the area favoured white settlers and small-scale in-

² <https://www.ncaa.go.tz>

digenous agriculture, while pastoralists' land uses and interests were neglected. Not only colonial policies, but also those of national governments heavily influenced pastoralists' access to land and resources. For the most part, the Maasai living within the Ngorongoro CA have been spared the worst consequences of this process, although Maasai communities not living within the CA have been severely affected, increasing competition for land both within and outside the NCA. The main grazing areas in the Conservation Area were closed to grazing and settlement in the late 1970s. The reduction of the pastoral resource base has created resentment among pastoralists towards the Conservation Authority:

“The problem with those who are living outside the park is the issue of encroachment inside park boundaries [...] pastoralists will always be attracted by the high quality of pastureland inside NCA. People were removing [NCA] boundary signs and claiming that land is theirs, even if it is not true. [...] NCA is a government property with a title deed. People bordering NCA do not have any property title, but they keep on encroaching inside NCA”

Furthermore, the prohibition of agriculture and the ability to grow crops within the NCA occurred in the 1970s, jeopardized the Maasai's already vulnerable subsistence economy. However, NCA offers support services to the community, helping them understand the benefits of the conservation area, especially in terms of climate action and maintenance of ecological services.

“The conservation area is very important even to the local community, indirectly, but local people need direct benefits. We give them money, we built them schools, we also supply food for them, as they are not allowed to do cultivation. Farming is in contrast with conservation purposes. We assure eco-system services, but if you tell local communities about them, they do not understand. They need to be educated “

Ecomuseums and the urge for climate action on behalf of cultural institutions

At the 2021 Conference the President of the International Council of Museums, Alberto Garlandini, stated that ecomuseums and cultural institutions, in general, should take on a prominent role in climate action, especially in addressing the threats jeopardizing the lives of indigenous groups:

“The pandemic has jeopardized millions of lives around the world, but the devastating effect of the climate crisis continues to impact our cultural heritage at a global level. Indigenous communities are at the forefront of the climate crisis. Not only are their livelihoods under threat, but also their cultural heritage cannot survive without their natural habitats. Museums, Ecomuseums, and all cultural institutions are essential to ensure a sustainable future. [...] It’s time that [...] museums fulfill their role in addressing climate change. [...] Only together we will be able to move forward”.³

An ecomuseum is a process in which communities preserve, interpret, and manage their heritage, with the goal of sustainable development. The institution places democracy and community at the very core, allowing the conservation of environmental, natural, or man-made heritage while pursuing the activation and participation of the community in the process. *Heritage* indeed means anything socially identified as valuable (Davis and Borrelli, 2012; Davis, 2007; Davis 1999).

Davis and Borrelli (2012) define ecomuseums as a practice beyond conservation, being a system of values to be employed for the valorization of local *genius loci*, or “*sense of place*”. Briefly, the community identifies and attributes value to its territory and the material and immaterial heritage, re-interpreting it, and increasing awareness of territorial identity. Consequently, it changes the collective point of view on nature-culture dynamics.

Furthermore, according to Davis (2007), an ecomuseum can be defined as a ‘dynamic’ process insofar as there is no single, pre-established way to achieve it, its implementation process includes dialogue and constant feedback between stakeholders and requires social action and participation. These elements empower the community, contributing to a positive outcome.

In conclusion, the key components of the ecomuseum are territoriality, holism, democracy, and an inclusive definition of heritage (culture, nature, tangible and intangible heritage), in which sustainable development goals are embedded (Borelli and Davis, 2012; Davis, 2007; Davis 1999). All these factors are potentially relevant for NCA.

³ <https://sites.google.com/view/drops-platform/forums/climate-action-2021>

Controversy and the importance of Climate Action in Africa

Climate change is severely affecting much of Africa, and reversing desertification and forest loss is of paramount importance: Africa has 17% of the world's forests and about 25% of the world's biodiversity. Africa hosts the largest intact assemblages of large mammals roaming freely in many countries (UNEP-WCMC, 2016). These ecosystems provide numerous products and services, including food, fuel, shelter, fresh water and protection from hazards.

Every year, almost three million hectares of African forests are lost (Mansourian and Berrahmouni, 2021). Ecosystem services are particularly important for African communities and must be restored, as most people live in rural areas where poverty levels remain unacceptably high and where livelihoods are derived directly from nature. Due to forest and cropland degradation, Africa spends more than USD 35 billion annually on food imports (Mansourian and Berrahmouni, 2021). The lack of protection of ecosystem services directly affects regional food security, with rural households most affected. Therefore, degraded forests not only intensify the effects of climate change, but also severely threaten the ecology that is vital for communities to be resilient to shocks. Climate action is critical in sub-Saharan Africa, an area of 24 million square kilometres where 58% of the total population lives in rural areas (projected to 2021) and 38.3% (2019)⁴ live on less than USD 1.9 per day (2011 PPP) Their food security is directly dependent on healthy ecosystems.

A central role in climate action in the African region is played not only by central governments, but also by conservation organisations of various kinds. Protected areas are a legacy of colonialism, which profoundly influenced African political ecology and natural resource governance, and still does. Nevertheless, environmental protection efforts in Africa are vigorous, with almost 9,000 protected areas (terrestrial and marine) preserving about 14% of the total region in 58 countries.⁵In Tanzania, where the NCA is located, 39% of the country is protected. These protection programmes undertake valuable climate action on a local and regional scale. In comparison, in Europe, where one might expect the sustainability discourse to

⁴ wordlbank.org/indicator

⁵ <https://www.protectedplanet.net>

be more advanced than in Africa, only 13.5% of the total area is under protection programmes.⁶

Unfortunately, protected areas often extend over indigenous ancestral lands, over which communities hold a customary right, and often these areas are managed collectively. This is a very controversial element from which conflicts can arise. Land conflicts occur because governments often do not recognise indigenous rights and claims to communal lands, which are considered under-utilised or under-capitalised (Wily 2011).

The NCA Experience: searching for a balance between climate action and community wellbeing

Given the complex and layered heritage preserved within the NCA, it is evident that it is not simply an environmental conservation institution, but could be identified as a place where some of the practices and discourses of Ecomuseums can be identified. To explore this idea, in addition to consulting literature on ecomuseums and climate action in Africa, I reviewed institutional documentation and websites of the NCA, consulted publications of international organisations involved in the NCA and human rights monitoring,⁷ and conducted a semi-structured interview and subsequent follow-ups with Andrew Lowassa, Senior cultural Heritage officer of the NCA. Andrew Lowassa was interviewed as a key informant on the work of the NCA and in particular on the relationship between the NCA and the local community.

The Ngorongoro Conservation Area (Figure 1) is located in the Arusha region and stretches from the plains of Serengeti National Park to the eastern arm of the Great Rift Valley. According to Andrew Lowassa, 'Ngorongoro is a conservation area where the land uses are multiple, not just conservation. We allow the community to live there, but the only activities allowed are animal grazing and community tourism'.

⁶ Ibid.

⁷ Such as UNESCO, IUCN, and Oakland Institute.

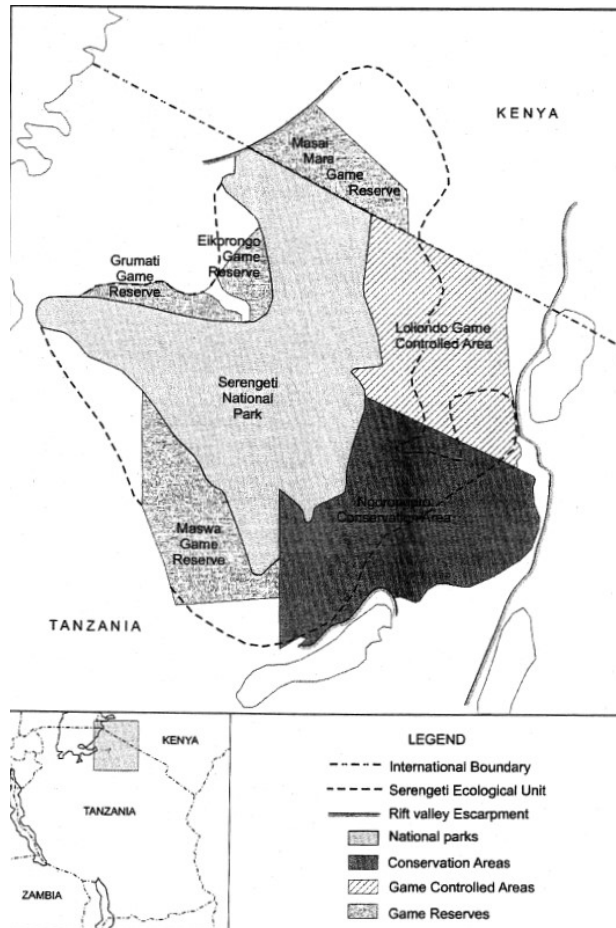


Fig. 1. Location of Ngorongoro CA (in black) within the wider Serengeti Ecological Unit in Northern Tanzania (see legend). Source: Charnley, S. (2005). From nature tourism to ecotourism? The case of the Ngorongoro Conservation Area, Tanzania. *Human Organisation*, 64(1), 75-88. P. 77. The original image is from Shivji, Issa G., and Wilbert B. Kapinga. 1998. *Maasai Rights in Ngorongoro, Tanzania: International Institute for Environment and Development and Land Rights Research & Resources Institute*. London.

Its perimeter includes the spectacular Ngorongoro Crater (Figure 2, a and b). The site has global importance for biodiversity conservation, for the highest density of mammalian predators in Africa, and the highest populations density of lions⁸ (Figures 3, a and b). NCA extends over highland plains, savannah, woodlands, and forests. The variations in climate and

⁸ <https://www.ncaa.go.tz/>

altitude created several ecosystems. Between the Ngorongoro area and Serengeti, every year the largest animal migrations on earth occur, involving over 1 million wildebeest⁹



(a)



(b)

Fig. 2 (a and b). Ngorongoro crater (courtesy of the author).

⁹ whc.unesco.org/en/list/39



Fig. 3 (a and b): Wildlife in NCA (courtesy of the author).

The area has been subject to extensive archaeological research for over 80 years. The famous fossilized footprints of Laetoli were discovered at the site and are associated with the development of human bipedalism. Testimony of the transition to the use of iron can be found in the area too. This archeological evidence is of paramount impor-

tance, underpinning the theory of human origins in the African continent.¹⁰ In 2016 the NCAA put forward a proposal to create the Laetoli Hominid Footprints Museum, but the museum has not been realized yet¹¹, although the proposal is still active¹² (URT, 2016). The Museum could enrich the array of cultural and educational services at NCA and act as a base for an NCA ecomuseum.

Cultural heritage is of special importance in the NCA, notably the tangible and intangible value of Maasai traditional livelihoods which are under protection mandate:

“At NCA, we define Cultural Heritage as the ways of living developed by a certain society or a community and passed on from generation to generation.”

Compared to other environment conservation institutions in Africa such as National Parks, the model and governance structure of NCA have a very special commitment toward the local community and the Sustainable Development Goals. Climate action is a priority. All these elements lead to the hypothesis that NCA discourse and practices are very similar to those found in ecomuseums. This is reflected in this statement: “The NCA is not a national park, but it is a pioneering experiment in multi-purpose land use”.¹³

NCA is home to different Indigenous groups, namely the Maasai and Datoga, who are pastoralists, and the Hadzabe, hunter-gatherers. The Maasai outnumber the other groups; their social and economic life centres around livestock and pastureland. Livestock underpins their subsistence although agricultural crops frequently supplement their diet, particularly during droughts. The Maasai turned to agriculture due to the reduction of available grazing within the Serengeti National Park and NCA, and growing pressures from the outside to create permanent settlements. Farming became a food security necessity. Their need for grain firmly ties the Maasai to the modern, globalized economy (Istituto Oikos, 2016; Århem, 1985).

¹⁰ <https://www.ncaa.go.tz/>; whc.unesco.org/en/list/39

¹¹ Personal communication between the researcher and the interviewee occurred in May 2022.

¹² <https://www.ncaa.go.tz/pages/community-services>

¹³ <https://www.ncaa.go.tz/>

“Food provision from NCAA is a form of compensation after the prohibition of farming activities in the CA. Our organisation goes to the market and buys food that we re-sell at lower prices. We use a local leader to make sure that food will reach the entire community.”

From an ecological perspective, Maasai society is designed to strike a viable balance between people, livestock, and the physical environment, water and pastures. In Maasai tradition, the land is viewed as a common resource, one requiring careful shared management that ensures its sustainable use by keeping grazing areas seasonally fallow. This practice allows grasslands to regenerate. The land is also regarded as sacred and invested with cultural value and social meaning. The Maasai social system reflects the capability of adaptation to environmental changes. The cattle serve as a store of food and a stock of capital and as also a medium of exchange, it symbolizes social status. Cattle are objects of supreme religious significance. (Oikos, 2016; Århem, 1985). Their typical settlement, the *boma*, is visitable by tourists willing to undertake a cultural tourism experience. Cultural bomas are run by the local Maasai community (Figure 4, a and b)

“We use more methods for conservation, we use people’s traditional knowledge for conservation purposes, for instance, we use that knowledge to trace endangered wildlife. They hold knowledge about indigenous trees, and they know local species of animals, named in their traditional language. Maasai communities already have their traditional methods for soil conservation. Besides, we encourage them to plant indigenous trees and not exotic ones and they are doing so.”



(a)



(b)

Fig. 4 (a and b): Typical Maasai settlement, the boma. Figure 4 (a) depicts a residential boma in NCA, where communities live, while figure 4 (b) depicts a cultural boma where tourists meet the Maasai community (courtesy of the author).

Human population densities among Maasai groups are low, but cattle-man ratios are relatively high, and this is the primary element stoking the controversy about overgrazing (Oikos, 2016; Århem, 1985) that is deemed to be the primary reason for soil and environmental degradation.

“One of the main problems is the increasing number of people. The pressure is too high on resources, and the number of people has increased quickly. It means they need more land, for a greater number of activities. The number of cattle is increasing. We also witness conflicts between wildlife and local communities when wildlife and livestock are in touch. It is a problem because there are diseases that go from wildlife to livestock and livestock disease to wildlife.”

UNESCO, during its latest site inspection of the NCA, identified Maasai community demographic growth as major threat to the site’s Outstanding Universal Value¹⁴. In a recent speech by the President of Tanzania¹⁵, the current model of conservation and human settlement- in NCA was regarded as unsustainable, due to the rising indigenous population. However, she also stressed¹⁶ how Ngorongoro is critical for tourism in Arusha. Therefore, the future of the NCA Maasai community is unpredictable. Currently, sedentary settlements are being built in the Tanga region for Maasai from Ngorongoro¹⁷. The government is committed to a comprehensive relocation plan, which will give compensation to those willing to move there, in line with country laws and regulations on re-settlements. However, The Oakland Institute - in a study conducted in 2021 by Currier and Mittal - denounces the voluntary relocation plan, regarding it as a massive eviction plan. Their study “dismantles myths, including that of *the rising population*”¹⁸: evictions are not about ensuring conservation, but about expanding tourism revenues within the World Heritage Site. The Oakland Institute stresses that the latest NCAA strategy document explicitly mentions the financial impacts of relocation, admitting that “leaving the NCA to Indigenous pastoralists, the government would lose 50% of expected tourism revenue by 2038”¹⁹

Unfortunately, at present, the Maasai of Tanzania find it increasingly difficult to achieve satisfactory living standards. Their ability to self-determine their lives is reduced and their very existence as an ethnic group is threatened. On the one hand, they are becoming more and more dependent on the modern economy through tourism, and on the other, the re-

¹⁴ <https://whc.unesco.org/en/news/2419/>; <https://www.oaklandinstitute.org/dispute-unescos-claim-never-asked-displacement-maasai>

¹⁵ Ibid.

¹⁶ Ibid.

¹⁷ Ibid.

¹⁸ <https://www.oaklandinstitute.org/looming-threat-eviction>

¹⁹ Ibid.

duction of their resource base is jeopardising the survival of their traditional culture and livelihoods.

“People at NCA are changing, shifting from their traditional way of living to new modern lifestyles. They are now building modern houses and they have many business activities.”

However, the Maasai’s land management practices have a significant positive impact on the conservation of the landscape and ecological corridors between protected areas in northern Tanzania, where the highest density of mammals in the world is concentrated. It is no coincidence that wildlife thrives in pastoral areas, and many ecologists agree that it is pastoral activities in the area that have fostered the abundance of biodiversity and savannah wildlife (Homewood and Rodgers, 1984; Oikos, 2016; Århem 1985). With careful land use planning and enforcement through zoning, wildlife and Maasai conflicts can be reduced:

“Wildlife and livestock get in contact and some conflict will always. We are trying to reduce these problems by doing zonation.”

I believe that adding ecomuseum-inspired practices and values to land-use planning could have great benefits. Factors such as increased community participation in conservation (both through the valorisation of indigenous knowledge and through their education in modern ecology) and increased community control over tourism in the area (not only by managing campsites and cultural activities, but also by participating in planning and monitoring) could foster community self-determination, consequently reducing resentment towards the CA and promoting a strong Maasai ‘sense of place’ and local pride.

Paradoxically, the contentious and controversial situation of access to land and resources was largely created by national rural development and environmental conservation policies that reaffirmed exclusion, just like the policies of the colonial period. Unfortunately, the dynamics of private and overseas investment fuels cronyism and the accumulation of vested interests of political elites towards tourism, which in turn results in the expropriation of land from communities and a reduced interest - not to mention antagonism - towards environmental protection programmes and the implementation of the climate action agenda on behalf of local communities. The use of violence and coercion is reported in land disputes and resettlement

operations involving the Maasai, including those living in or near Ngorongoro CA and Serengeti NP (Århem, 1985; Nelson, 2012; Currier and Mittal 2021). Is a brighter future for the NCA and the Maasai community possible, together with effective and community-sensitive climate action? This will only be possible if the welfare and self-determination of the community take priority over the interests of tourism. Interestingly, these values are already embedded in the NCAA (as illustrated in the next paragraphs), so they must be put back at the centre of the NCAA's management.

The NCA Mission and vision and the pursuit of the SDGs and climate action through ecomuseum ideology

Ngorongoro Conservation Area Authority's mission is "To sustainably conserve biodiversity and cultural heritage, enhance the livelihood of the indigenous communities and promote tourism for the benefit of the Nation and the World" to become "The best conservation area in the World"²⁰.

The area is managed with a holistic concept of protection, mutual education (for tourists and for local communities), and sustainable development, a vision it shares with ecomuseums'. Furthermore, a list of values is presented in the guiding framework of NCAA action, among which are included Sustainable Development, and intergenerational equity, the core pillars of the definition of sustainability²¹.

"We have been working with local communities in harmony. We have witnessed in these recent years that the local community understands the benefit of conservation, they see that kids benefit from what they are conserving. Now, they agree with conservation issues."

The multiple land use policy has made the NCA a unique protected area in Africa. Land uses are planned and different land uses are associated with each area. In 2018, part of the NCA site was recognised as being of universal value by UNESCO, an area of international geological importance that can now be protected under the first institution of its kind in Africa, called the Ngorongoro-Lengai UNESCO Global Geopark. In addition to preserving NCA's geological Outstanding Universal Value (OUV), the Geopark is also used for educational purposes and

²⁰ <https://www.ncaa.go.tz/>

²¹ Ibid

sustainable tourism experiences. In this way, NCA is expanding its educational reach, once again adopting a split-site model very close to that used by many ecomuseums.

The NCAA ensures an accountable governance framework, with internal monitoring and evaluation units and external monitoring on behalf of UNESCO. The NCAA has mechanisms for transparent local community participation through its Community Development Department. It develops and implements strategies and programmes to promote harmony between the Authority and communities in and around the area through food, education and veterinary programmes, and provides communities with technical guidance on sustainable development. The NCAA Department of Cultural Heritage coordinates the preservation of cultural heritage and establishes and manages NCAA museums, such as the aforementioned Geopark and the Laetoli Museum, which has not yet been realised. Finally, the Pastoral Council is a community organisation whose mandate is to oversee the actual needs of pastoral communities living in the NCA and to work as an advisory body to the NCAA, but not as part of the Authority, on pastoral matters.

“The council sends representatives from every ward²² [to bring community’s interests before NCA Authority] It was registered by community members at the District Council²³. We also have a Women and Youth Pasture Council. Members discuss the issue, and representatives note what has to be done.

The presence of community-dedicated department and the inclusion of an external community-based organisation, such as the Pastoral Council, can be identified as ecomuseum-related practice. However, the issue of transparent relation with the community is subject to ongoing scrutiny on behalf of the UNESCO World Heritage Committee (IUCN, 2020). The lack of transparent community-authority relations (IUCN 2020) may fail “to encourage a sense of ownership of, and responsibility for, the conservation and sustainable use of the property’s natural and cultural resources²⁴”

²² Local administration unit

²³ Ibid

²⁴ <https://whc.unesco.org/en/decisions/3993/>

Discourse and practices in the Ngorongoro conservation area: Ecomuseum features

The NCAA's mission reflects the inclusive definition of heritage (i.e. culture, nature, intangible heritage), as reflected in the literature and ecomuseum practice. Within the NCAA, a multi-layered type of heritage is protected, comprising natural heritage (related to the rich biodiversity of the area), cultural heritage (including specific objects, structures and archaeological sites) and intangible heritage (traditions and norms passed down from generation to generation). Whether lateoli museum is going to be created, it would become another feature of a cultural institution and tourist destination multi-faceted (=ecomuseums). Similarly, the Ngorongoro-Lengai UNESCO Global Geopark is a nature-based tourist site with educational purposes. More generally, the entire heritage is managed with a holistic concept of protection, education and sustainable development. These are, according to Borrelli and Davis (2012), the key ecomuseum components that can be identified in the NCA. However, the community-driven heritage identification process is a key component of the ecomuseum process, but according to Peters (2009), the process of creating the NCA has been heavily influenced by international thinking on wildlife conservation, tourism interests and a wildlife-focused approach to conservation; this has contributed to resentment towards the NCA on the part of the local community. I argue that this top-down heritage identification process, in which the local community played no role, with no appreciation for its own *genius loci* and identity, was a mistake. The creation of national parks and game reserves, as was the case on the African continent, alienated indigenous peoples from their land, setting them apart - as islands of nature - for international wildlife tourists (Child, 2012; Arhem, 1985).

In this context, the elements that link NCAA's discourse to ecomuseum ideology are those that can renew NCAA's environmental action and centre it on indigenous communities: sustainability and intergenerational equity, climate action, and education for tourists and local communities. The NCA also has other important goals: preventing hunger and combating malnutrition and making communities resilient to climate change. These core values are closely related to the UN sustainability goals and form the framework for the NCAA's action.

The NCAA is addressing several development goals, pursuing a holistic approach in line with the UN sustainability goals. According to Davis and Borrelli (2012), an ecomuseum is a value system that can change society's perspective on human-nature relations; the NCA has a similar complex system of guiding values, and both share a revolutionary approach to environmental protection. It is possible to identify the NCA experience as a fulcrum for innovation in the community-nature relationship and the possibility of overcoming the current limitations of environmental protection that pose a direct threat to the survival of indigenous communities and biodiversity.

Indigenous knowledge is used in environmental monitoring and protection on behalf of the NCA authority; work with the pastoral community can be identified as an ecomuseum practice. Mixing indigenous and scientific knowledge, both of which are employed to preserve and monitor habitats and wildlife, could, on the one hand, strengthen the indigenous community's commitment to conservation and, on the other hand, help the NCA reinterpret the human-nature relationship, moving away from the narrow view that western conservationism has. In this sense, the NCA's collaboration with the pastoral community through knowledge could change the collective view of nature-culture dynamics: the NCA's scientific approach is enriched by indigenous knowledge, and the indigenous community can benefit from western-designed science for more effective nature monitoring.

Relations with the local community can be improved: the controversial resettlement programme conceals human rights violations and the use of violence and coercion; pastoralists are confined within the NCA, settlements are destroyed and the land currently accessible to the community is shrinking. This scenario is at odds with the practice and discourse of the ecomuseum, where the cultural institution is developed by the community for the community, embodying the values of democracy, equality and full respect for human rights. However, the governance structure of the NCA has a very particular and unique commitment to the local community, pursuing community development and participation primarily through a dedicated department (the Community Development Department) and a community-based organisation such as the Pastoral Council. This type of governance structure can be asso-

ciated with Ecomuseum practices, where both the institution and the community participate in heritage management.

To fully realise the UN sustainability goals and respond to climate change, it is necessary to pursue both environmental and socio-cultural sustainability, and this is crucial in Africa, where environmental policies and natural resource management hide many threats to indigenous groups and local communities. In this sense, the experience of ecomuseums could provide useful ideas and guidance for NCAs in favour of a holistic and integrated vision of sustainable development, which is crucial in the face of the climate crisis.

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