Waterworld: The Use and Reuse of Lake Tadane in Safeguarding Knowledge and Sustaining the Cultural Heritage of the Nzulezo Community

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Nzulezo, a tentative World Heritage Site listed in 2000 by UNESCO, is a community built on Lake Tadane in the Western Region of Ghana. Since its nomination, Nzulezo has become an attraction to both Ghanaians and foreigners alike. Over the years, the population has built dwellings and other structures to form the village over the lake, a way of adapting to an environment made up of about 70 per cent freshwater, about 20 per cent wetland, and 10 per cent land. Nzulezo stands out among heritage sites in Ghana due to its traditional architectural style. The village structures are made of wood and raffia. Located in a water-dominated environment, the community experiences changes in water levels that are predominantly seasonal. The water level is low from December to April during the dry season and high from June to August during the rainy season. In Nzulezo, the entire management of the site has been left to the Ghana Wildlife Society, a non-governmental organization (NGO). The focus of the management is tourism-driven, with less regard for the community members and the environment.

Fig. 1  Picture of life in Nzulezo, a village on stilts in the western part of Ghana. Buildings are made of rafia palm branches. (Source: Kwesi Raul, 2022. CC BY 4.0 via Wikimedia Commons).
**Water is colorless and tasteless but you can live on it longer than eating food.**  
- African proverb

**Introduction**

The name of the village was derived from the Nzema word *nzulezo* which means “surface of the water,” referring to the environment in which the village is located. Nzulezo lies in the hinterland of Beyin in the southwestern part of Ghana. Beyin is located along the coast of the Gulf of Guinea. The Nzulezo community can be accessed by a fifty-minute canoe ride from Beyin, the closest town to the village. The Nzulezo community is also situated within the Amansuri wetlands, the most significant inland swamp forest in Ghana. The Amansuri wetland ecosystem is rich in biodiversity and consists of peat, swamp and mangrove forests, floodplains, sandy shores with streams, a freshwater lake, lagoons and the sea.

Climate change has significant impact on Nzulezo, affecting its ecosystems and well-being. Generally, climate change is already altering the rainfall patterns in Ghana; some regions may experience reduced rainfall while others, like the location of Nzulezo, are faced with more intense rainfall events and flooding. The community heavily depends on agriculture for its livelihood, and changing rainfall patterns, increased temperatures and extreme weather events can impact crop yields and overall food security. Climate change affects Ghana’s water resources, including rivers, lakes and groundwater. Increased temperatures and altered rainfall patterns can lead to water scarcity, reduced water quality and conflicts over water usage. This makes Nzulezo highly vulnerable. Before its inscription by UNESCO, the community cohabitated with the environment and water. Today, they are faced with not just cohabiting with the environment for themselves only, but also for the masses who troop there as tourists. Both the community and those who visit the site as tourists are at risk should there be a sudden climate switch.

**Current Approaches to Preserving and Managing Water Heritage**

Construction knowledge is a vital component in ensuring the continuity of the traditional building style, which is a focal aspect of Nzulezo’s cultural heritage. The managers of the community, the Ghana Wildlife Society, pay attention to heritage without realizing the important link between Nzulezo’s cultural heritage and water. The lake and how the community leaders have preserved their immediate environment until today deserve more critical attention. Unlike other heritage sites, the Nzulezo community is situated within the boundaries of a heritage site. Often, when heritage sites are located where a group of people live, this location then becomes “living heritage.” The concept of “living heritage” emphasizes the links between a community situated within the confines of a heritage site, a place where people participate daily in cultural activities such as language, festivals, crafts and performing arts within the social landscape.

As an attribute of a society (Bicchieri 2005), local norms play a crucial role in communities as they serve as a means through which culture, heritage and the environment are preserved. Neither codified nor written down in books, these embodied norms prove highly effective in local communities. According to Andoh (2019), norms serve consciously or unconsciously to help preserve nature and the environment since most communities, at least historically, depend closely on these natural resources. At Nzulezo,
Fig. 2 Nzulezo community on water (Source: YEN News).

Fig. 3 High water level (Source: YEN News).
local leaders created demarcations and apportioned areas where community members could relieve themselves. This system was put in place because the lake flows, so the community area would remain clean and unpolluted. Additionally, a demarcated portion of the lake has been reserved for collecting clean drinking water. It is also taboo for any community member or tourist to dump waste into the lake, to ensure cleanliness.

There is no better method to preserve the environment than the ways local people have and protected it for the past 400 years and more. Indigenous knowledge at Nzulezo contains essential values that need to be passed on to younger bearers of local culture. The unique culture and heritage of the community is closely linked to Lake Tadane and is mainly evident through

1. The presence of water and the fact that the community resides on water permanently.
2. The unique architectural and building style of the community. That is, using natural materials such as wood, raffia fronds and palm fronds in building.

**Current and Future Challenges of this Water Heritage Site**

Residents of Nzulezo have experienced their fair share of threats against the practice, survival and continuity of their heritage. Among these threats is the introduction of new construction technologies, which is evident in a house made of brick that has joined the traditionally constructed buildings on the water. One consideration for recognizing Nzulezo as a World Heritage Site was the community's unique way of building with local traditional materials as part of their adaptation to a wetland environment. Also, Nzulezo is one of the few ancient settlements on stilts and platforms left in the world. The brick house has the potential to heighten the risks that threaten the survival of the ecosystem and local heritage. If the local interest shifts to brick housing, people will start finding ways to fill up sections of the area that can accommodate these structures. Despite the many challenges faced with maintaining their heritage, the elders and other community members of Nzulezo have fought hard against political, policy and sustainability challenges as they have tried to develop and maintain a global reputation, especially since the village was nominated to the tentative list of World Heritage Sites in 2000. The new status provided by UNESCO led to a sudden local heritage boom (Harrison 2013), which ironically has the potential to bring profound changes to the community and its heritage. During the early stages when Nzulezo was being discovered and nominated, heritage institutions and the government were focused on generating revenue at the expense of the community's well-being. Yet so far, the local leaders have stood their ground, hoping to give future generations the opportunity to partake in and continue what they have received and are struggling to pass on. The heritage has been well preserved until now by the locals themselves, who take pride in their culture.

The water system at Nzulezo was stood the test of time in regard to climate change mitigation and environmental protection. There have not been any severe droughts affecting the lake and its environs, but in 2009, an increasing flow of rainwater into the lake caused floods that destroyed part of the community, although fortunately with no casualties. The surrounding ecosystems have also been stable. Some current challenges affecting this water heritage include a massive influx of both national and
international tourists. This has impacted most aspects of community life. Many visitors arriving on weekends and holidays put pressure on the community and its immediate environment. The community is facing sanitation issues due to tourists dumping waste and sewage directly into the water.

Ensuring proper water management is a major challenge throughout Ghana, although the government is trying to achieve SDG 6. People have been fighting against the misuse of the main water bodies that supply fresh drinking water to the population. Of particular concern is the pollution from galamsey (illegal mining). Additionally, climate change has been resulting in flooding in Ghana. During flooding, polluted water flows from illegal mining sites all the way to Nzulezo, causing a physical change in the look of the water and for months making it difficult for the community to access clean drinking water. By integrating modern and traditional water management systems, Ghana can work toward sustainable development.

**Conclusion**

The UN SDGs adopted in 2015 are a universal call to action to end poverty, protect the planet and ensure peace by 2030. In the quest to achieve all 17 goals, it is vital that sustainable management of water resources, including water-related ecosystems in the case of Nzulezo, are met. This can be achieved through water education and awareness initiatives to ensure access to clean water and sanitation. As Nzulezo’s cultural identity is closely tied to the lake, the need to properly care for and preserve the environment is crucial for heritage continuity. Acquiring and transferring knowledge to subsequent generations in any social setting is a fundamental process linked to cultural continuity.

These processes are not only embedded in belief systems but also closely connected to the qualities of their immediate location. Now, activities relating to heritage management threaten the continuity of the local heritage that defines the Nzulezo people. There is a dire need for collaboration between all obligatory stakeholders (national/international heritage institutions, the local government, NGOs) and the community to achieve a more effective and acceptable course of action.

For an active member of the living community within the heritage space, daily lifestyle forms an integral part of the heritage. This fact can be leveraged to achieve inclusive, sustainable development, social cohesion, equity, community well-being and resilience between the Nzulezo community, the state and NGOs.

It is important to involve the community in better managing their heritage. The management process needs to incorporate traditional ways of learning about and knowing the world. Traditionally, sanctions, norms and taboos have been important social tools for managing heritage assets. This method of heritage management is linked to a belief system. With a community such as Nzulezo, where people have great respect for tradition, incorporating and implementing these local methods as part of managing the community should improve the current situation.
Acknowledgment
The text is based on Joseph Pieterson, 2018. "Safe-
guarding Indigenous Knowledge and Heritage: Nzule-
zo Stilt Construction." MA thesis, Central Europe Uni-
versity, 2018. This contribution was peer-reviewed. It
was edited by members of the editorial team of the
UNESCO Chair Water, Ports and Historic Cities: Car-
ola Hein.

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