

WATER AND HERITAGE

Saving sacred waters: The future of Mohokare Valley sacred sites and water resources

Water resources and aquatic ecology are rarely associated with matters of heritage. Dr Stephanie Cawood and Dr Tascha Vos of the University of the Free State have been studying the link between the socio-cultural dynamics of heritage and water quality at sacred sites in the Mokohare Valley since 2008.

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Makashane Ntlhabo, Dr Tascha Vos and Dr Stephanie Cawood sampling at Mautse.

The fertile Mohokare Valley follows the flow of the Caledon River in the eastern Free State and, prior to the outbreak of the COVID-19 pandemic, played host to a vibrant pilgrimage movement to a series of sacred sites, *Motouleng* (a sacred cave between Fouriesburg and Clarens) and *Witsie's Cave* (at Monontsa, Witsieshoek), the sacred valley of *Mautse* (between Rosendal and Ficksburg), and the sacred places associated with the prophet Mantsopa (at the Anglican St Augustine's Priory and Mission Station at Modderpoort near Ladybrand). These sites are places of pilgrimage for spiritual purposes and performing rituals and were found to be repositories of vast resources of living heritage, including undocumented oral histories and indigenous knowledge.

All these sites contain freshwater bodies within their boundaries or are situated close to water bodies, and many of the rituals and human activities documented at these sites are dependent on water from springs, pools, rivers, streams, and seepage. While also used as sources of potable water, many of these water sources are considered sacred and the water used for spiritual and medicinal purposes.

At Mautse, at least ten sacred sites were documented directly related to water, such as *Sedibe sa Moshoeshoe* (spring), the sacred pool at *Tempeleng*, the cascading pools at *Diepsloot*, the waterfall and pool inside *Yunivesithi*, *Sedibe sa Madiboko* (small seepage waterfalls), the pools of *Khanyapa*, *High Court*,



Inside Witsies cave.

and *Letsha la Tsonolo* and the Nkokomohi wetlands. *Motouleng* cave is situated on the banks of the Little Caledon (Mohokare) River, which includes a sacred waterfall and pool upstream, as well as seepage under the sandstone overhang. At *Modderpoort*, *Mantsopa's Spring* is considered sacred by pilgrims. Water also played an important spiritual role at the baptismal fonts where the Prophet Mantsopa is said to have conducted ritual baptisms for adults and children. On route to *Witsies Cave*, pilgrims pass by a spring and a stream, providing water for spiritual and practical purposes.

The sites associated with Mantsopa and Witsies Cave (declared provincial heritage sites on 8 April 2016) generally fall under some form of authority, such as the church and a local traditional authority, which regulate access to the sites and apply some form of management regime to maintain the sites, although the management and protection protocols are not uniformly applied. The sites of Mautse and Motouleng were found to be informally declared heritage sites, in other words, recognised and actively used, but not formally declared as local, provincial, or national heritage sites or protected by management protocols.

From 2008 to 2010, the heritage of these sites were explored in a research project funded by the National Heritage Council and, while rich repositories of tangible and intangible heritage were discovered, the environmental condition of the sites deteriorated visibly and rapidly over a short period of time. Given the centrality of freshwater bodies at these sites for both mundane use and spiritual and medicinal purposes, Drs Cawood and Vos decided to study the water quality of Mautse and Motouleng water bodies using physical, chemical, and biological analyses.

Physical and chemical risk were found to be insignificant, but the biological results were revealing, with high concentrations of faecal coliforms indicating increased human and animal activity.

Water quality varied from moderate to poor and, while certain water bodies were mesotrophic, key sacred water sources were becoming increasingly eutrophic over the sampling period, a clear indicator that Mautse and Motouleng were showing escalating signs of stress, which correlated with observations of increased numbers of pilgrims and human activity where water usage, waste disposal and sanitation all appeared to be unregulated. The findings documented a masking effect where clear water (due to the rocky substrate) masked the presence of high bacterial loads and created the illusion of being safe for consumption.

"It has become clear that, should circumstances continue and deteriorate as it has over the last few years, the sites may deteriorate to such an extent that all heritage and intrinsic value are lost, rendering them unfit for any form of use by humans." (Cawood, 2010).

A cycle of risk was identified where human, animal, and ecological risk factors interacted to amplify the vulnerability of these sites, with water quality as the common denominator between the environmental integrity and public health of an informal heritage site and the heritage associated with those sites (Vos & Cawood, 2010). Living heritage sites such as these depend on the sustainability of the heritage-related practices to remain active, so ecological risks such as poor water quality will increase the risk to pilgrims and heritage practitioners and

ultimately the heritage associated with those practices will be lost if the sites become ecologically degraded to such an extent that it becomes unsafe for human use.

Drs Cawood and Vos devised a comprehensive bio-cultural screening model for heritage sites inspired by the Physico-Chemical Driver Assessment Index (PAI), one of the indices for biomonitoring aquatic ecosystems, which include the parameters of oxygen, temperature, total dissolved solids (TDS), nutrients, and bacterial load. However, this comprehensive approach would be more appropriate to formal heritage sites with access to formal management and funding.

For informal heritage sites where there is no management protocol or little funding, an abridged bio-cultural screening version was proposed called Rapid Integrity Appraisal (RIA) for a quick and effective assessment of site health. Of all the available biological water quality measurements, bacterial analysis and turbidity proved the most meaningful to quickly ascertain the general ecological health of the Mohokare sacred sites or similar heritage sites that may be undeclared, informally used and poorly managed.

Therefore, RIA is a deconstructed version of the conventional Physico-Chemical Driver Assessment Index (PAI) and solely consists of one physical parameter, turbidity, and the biological/bacterial parameter of *E. coli*. (Cawood & Vos, 2016). The choice of the biological/bacterial parameter is logical given the potential of human impact, while turbidity is included because of its inverse role in the masking effect.

RIA is specifically aimed at the rapid assessment of the ecological condition of sites for immediate decision-making and may lead to the implementation of the comprehensive bio-cultural screening model where resources may allow. South Africa has immense challenges with resources, which has worsened due to the COVID-19 pandemic, and resources for informal heritage management likely will remain scarce going forward making RIA a more expedient alternative.

In the conclusion of the National Heritage Council report in 2010, the researchers remarked how unfettered human activities at these sites and increasing pilgrim numbers and permanent residents were “putting stress on the environment” and manifested in “the visible environmental degradation of the sites in a very short time frame” (Cawood, 2010). The findings from studying the impact of water quality on sacred sites between 2008 and 2010 by Dr Cawood and Dr Vos signalled that these sites would not be sustainable in the long run without serious

intervention and anticipated the eventual closure of these sites. The sites of Mautse and Motouleng were arguably the most popular pilgrimage destinations of all Mohokare sacred sites, but they were also more vulnerable due to their undeclared status with no management or preservation protocols in place. In 2016, Mautse was closed, and, at the time, the environmental degradation was so severe; it was no longer considered safe for humans.

Early in the first government-imposed lockdown in March 2020 due to the COVID-19 pandemic, all pilgrims were evacuated from Motouleng, which was subsequently damaged by fire. Of the Mohokare sacred sites, Mantsopa and Witsie’s Cave, the only sites subject to some form of management and protection regime, remain intact, while the informal sites have perished.

The closure of Mautse and Motouleng in conjunction with the COVID-19 pandemic, lockdown restrictions and containment measures have had a devastating effect on the Mohokare pilgrimage movement, which currently is dormant. However, the hope is to re-open not only the intact sacred sites once it can safely be done, but also to revive both Mautse and Motouleng, in a more sustainable manner. Concerned stakeholders, including local traditional faith organisations, traditional leaders and healers, landowners, and scholars, are actively working towards this goal. Free State heritage professional and PhD student in Africa Studies, Mr Makashane Ntlhabo, is working closely with local authorities and stakeholders to develop practical management protocols for the Mohokare sacred sites that also include appropriate COVID containment measures to be tested at Witsies Cave.

Fundamentally, the Mokohare pilgrimage movement has always been a grassroots movement and will be better served if interested stakeholders work together to develop practical management protocols and a formal stakeholder forum to address issues pertinent to the sites which in the long run could evolve into a Section 21 company or non-government organisation eligible for funding. Possible stakeholders include the landowners, pilgrims who regularly visited the sites, local community leaders, researchers, traditional authorities, tourism boards, heritage institutions such as the Free State Provincial Heritage Resources Authority, the Free State Department of Sport, Arts, Culture and Recreation and other legitimate stakeholders. To be sustainable in the long term, such a forum must be a mandated forum with a planning agenda and official authority to act in the best interest of the sites and manage them accordingly.

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Mantsopa's Spring, including baptismal fonts; and the Rose Chapel

Water is a key indicator for ecological degradation and environmental threats to intangible heritage which needs material locations to anchor their meaning. Tangible and intangible heritage are therefore closely integrated and cannot be separated. The RIA (Rapid Integrity Appraisal) model was field tested from 2018 to 2019 on the water resources of the Mohokare sacred sites and can provide a quick and efficient barometer not only of the general health of a site, but also a snapshot of the nature of human activities occurring during a sampling interval. In the absence of existing standardised management and protection protocols across the board, Dr Cawood and Dr Vos argue that the RIA model should be included as a monitoring tool in the development of management protocols devised by stakeholders. In this way, the current hiatus of the Mohokare pilgrimage movement can be productively used to restore all sacred sites and sacred water resources and to reset the pilgrimage movement in a post-COVID world to make it more sustainable without needing formal declaration and protection, which can be time-consuming and expensive.

References

- Cawood, S. (ed.). 2010. NHC Project Report – Oral Histories and the Cultural Uses of Clay at Sacred Sites in the Free State. Centre for Africa Studies, UFS.
- Cawood, S. & Vos, A.T. 2016. Water quality as bio-cultural screening indicator for the integrity of informal heritage sites. *Water SA* 42(4): 516-527.
- Vos, A.T. & Cawood, S. 2010. The Impact of Water Quality on Informally Declared Heritage Sites: A Preliminary Study. *Water SA (Young Water Professionals Special Edition 2010)* 36(2): 185-192.



The sacred valley of Mautse.