Rebuilding an ancient southern African kingdom

Nearly 80 years of intensive collaborative multidisciplinary research on the Iron Age settlement complex of Mapungubwe, now a proclaimed world heritage site in the Limpopo River Valley, led to the publication of the book *Mapungubwe remembered* by the University of Pretoria in late 2011. This book bears testimony to the major role that the University played in the recovery, documentation, conservation and educational presentation of this historic site.

Researchers in the School for the Built Environment made significant contributions to the book and are continuing with their ethno-architectural research for the digital reconstruction of traditional settlement patterns and African architecture at Mapungubwe and other sites.

Mapungubwe Hill lies on the border between South Africa, Zimbabwe and Botswana on the farm Greefswald in the central Limpopo River Valley. For centuries, it had no significant meaning for anyone, apart from being part of the beautiful natural Limpopo landscape. This was until 1933, when a young man who had stumbled upon gold treasures on the hill called the University of Pretoria to the site. This led to the discovery of the capital of an ancient African Iron Age kingdom and another similar capital nearby, known as K2 or Bambandyanalo.

When the inhabitants of Mapungubwe Hill abandoned this African capital towards the end of the 13th century, they left a wealth of evidence of an ancestral southern African society behind – clay pots, and various objects and tools made from iron, copper, gold, glass and natural materials.

After the discovery of the treasure of Mapungubwe, the University of Pretoria established the Greefswald Archaeological Project, now known as the Mapungubwe Archaeological Project. Over the years, researchers from various disciplines worked on unlocking the history of the site and have jointly gathered a legacy of public and scientific knowledge of the Mapungubwe Cultural Landscape.

As archaeological research efforts on the site progressed, Mapungubwe was recognised as one of the best Iron Age sites in the country and one of the most important cultural heritage sites in Africa. In 1995, South African National Parks (SANParks) declared Mapungubwe

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and the surrounding landscape as the Mapungubwe National Park (initially known as the Vhembe-Dongola National Park). In 2000, the University of Pretoria opened the Mapungubwe Museum on its Hatfield Campus with a display of selected artefacts from the University's Mapungubwe research collection. In 2003, the Mapungubwe landscape was declared a United Nations Educational, Scientific and Cultural Organization (UNESCO) world heritage site.

Ancient architectural remains

Of particular interest to the School for the Built Environment is one of the key features of the Mapungubwe site: the remains of the traditional African architecture that was revealed throughout the archaeological excavations at Mapungubwe and K2.

During the excavations, researchers found architectural features dating back to between 1000 and 1300 AD. At K2, researchers found remains of a homestead complex with structures such as groups of different round pole-and-daub structures or huts, including large structures thought to have been sleeping huts that had an inner wall surrounded by an outer wall; medium-sized single-walled huts that were in some cases used for storage, one of which contained an elephant tusk; and small granary huts.

In the Mapungubwe settlement area, researchers found architectural features such as stone walls and stone steps, small stone platforms, pole-and-daub huts and gravel floors, as well as the remains of ceramic vessels and figurines, metal artefacts, trade glass beads and other cultural objects. A large number of different gold objects were found on top of and surrounding Mapungubwe Hill.

This, in addition to remnants of grain seeds in burnt granary huts, the skeletal remains of domestic animals and remnants of manure in a kraal-like structure, provides valuable information about the lifestyle and agricultural activities that these communities practised.

In spite of the time lapse of approximately 700 years between the settlement of Mapungubwe and the current kingdoms in the Limpopo region, and despite the diversity of languages spoken in the region, researchers realised that there seemed to be remarkable similarities between the subsistence and settlement traditions of the existing Sesotho- and isiVenda-speaking communities that still reside in the region today and the ancient architecture and objects found in the Mapungubwe area.

This inspired researchers in the Department of Construction Economics to embark on an interdisciplinary study to formally research the cultural heritage landscapes and architecture of the communities that currently live in the Limpopo region in relation to the structures found at Mapungubwe and K2, and to use the similarities they uncovered to digitally reconstruct this ancient southern African kingdom.

Ethnographic analogy

Over the past few years, researchers from the University of Pretoria have been working closely with Thovhele MPK Tshivhase, the king of the Tshivhase kingdom of the VhaVenda at Sibasa in the northwestern part of Limpopo, together with his Royal Council, as well as with Kgosi TJ Maleboho, king of the BaHananwa of Blouberg in the northeast of Limpopo and his Royal Council, to gather information on their cultural traditions.

There are some striking similarities between the architecture and traditions of the BaHananwa and VhaVenda tribes of Limpopo, Zimbabwe and Botswana surrounding the Mapungubwe area, and the cultural and architectural remains at the Mapungubwe and K2 sites.

Image courtesy of Eloff (1979).

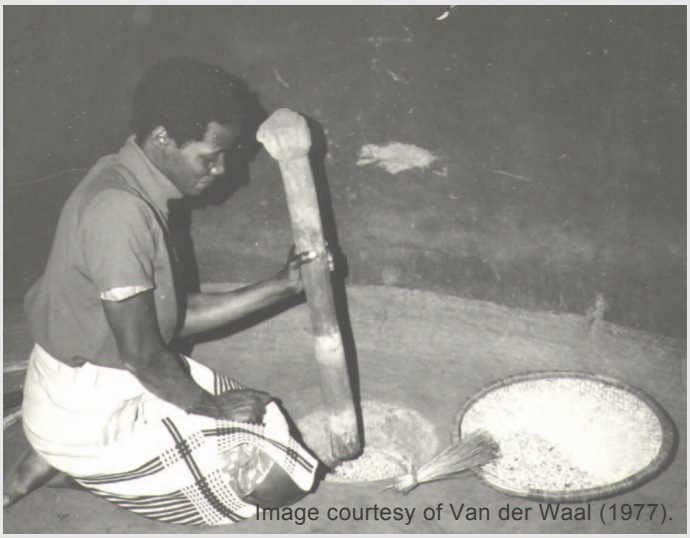
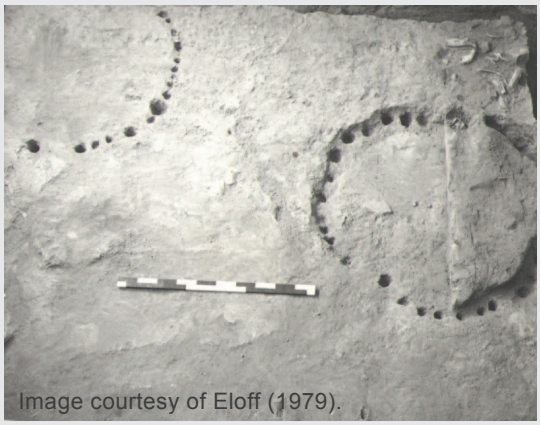


Image courtesy of Van der Waal (1977).

Sunken stone stamping blocks (above left) were found in the Mapungubwe area, and are similar to the sunken stone stamping blocks that the VhaVenda used as cereal stamping blocks in the 1970s (above right). The people of the Mapungubwe area are thought to have used these sunken stone blocks to pound grain into flour, just as the VhaVenda have done up to recent times.



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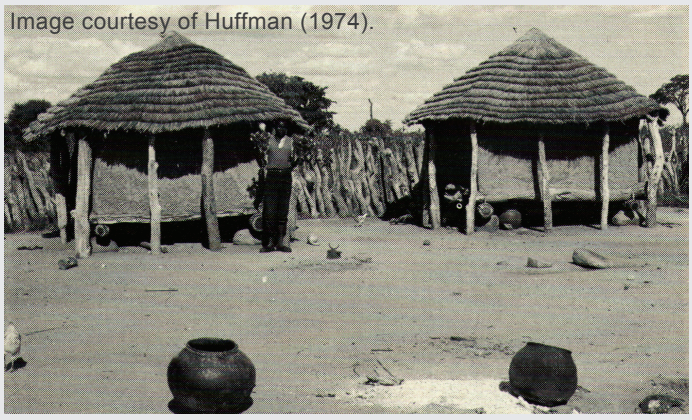


Image courtesy of Huffman (1974).

A number of circular hut wall trenches with pole holes (top left) were found in the settlement layers at K2 and Mapungubwe and are thought to be remains of small storage huts or granaries, similar to the structures that can still be seen in some traditional villages in Limpopo, such as the Venda granaries photographed in 2010 (top right) and the Kalanga granaries recorded in Western Zimbabwe in the 1970s (bottom right).

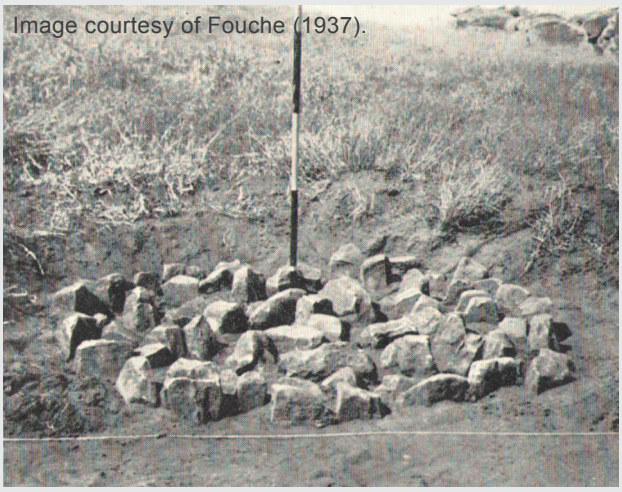


Image courtesy of Fouche (1937).

Image courtesy of Cunningham and Terry (2006).

Two circular stone structures (above left) were excavated at the summit of Mapungubwe Hill in 1934 and seem to be similar to the stone structures that local communities have used until recently to support woven granary storage baskets in Lesotho (above right).

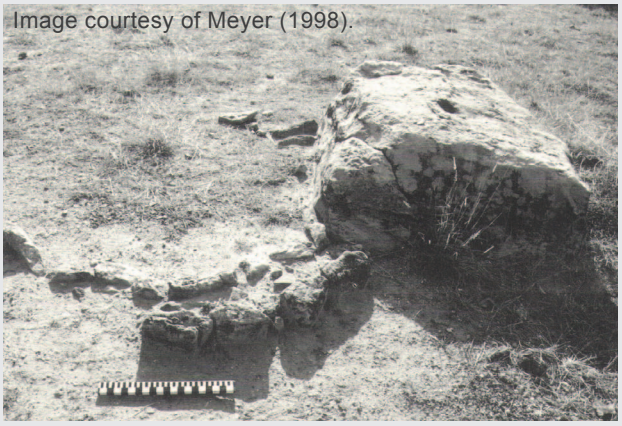
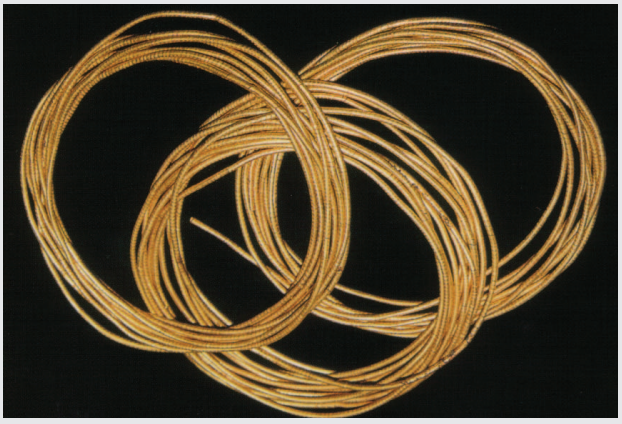


Image courtesy of Meyer (1998).

Some large stone stamping rocks with a semi-circular wall (above left) were found at Mapungubwe. This is thought to be part of a threshing floor on which the Mapungubwe people threshed and stamped dried grain, like the Shona-Ndau people in Mozambique were doing in the 1900s (above right).



Numerous bangles and golden anklets or leg rings were found as funerary ware on K2 and particularly on the summit of Mapungubwe Hill (above left). People in the Limpopo region today still manufacture similar objects for cultural use, such as the metal anklets that form part of the ceremonial dress of Venda girls (above right).

The ancient architecture and objects found in the Mapungubwe area inspired researchers in the Department of Construction Economics to study the architecture of the communities that currently live in the Limpopo region and to use the similarities they uncovered to digitally reconstruct this ancient southern African kingdom.

Digital reconstruction

The research into the relationship between the Mapungubwe architecture and traditions, and the traditions and features of the surviving tribes in the area is ongoing. The kings of the communities are providing valuable insights into the project, passing on traditional knowledge that can be used to explain the cultural and architectural remains at the Mapungubwe and K2 sites.

The Department of Construction Economics is now using the data collected over nearly 80 years of research, together with oral data from the kings of the local tribes, combined with different authors' published ethnographic records of similar ethno-architecture elsewhere in southern Africa, to digitally rebuild Mapungubwe.

The aim of this interdisciplinary project is to create a 3D video that takes the audience through the digitally reconstructed, historic capital of Mapungubwe. The sleeping huts, granaries, stamping blocks, threshing floors and other main structures will be digitally 'rebuilt'.

The cultural and agricultural features of the settlement, as well as the games they were thought to have played, will be reconstructed to create and add detail to the reconstructed settlement.

This will serve as an excellent educational tool for tourists and local residents, and could be used to train the tour guides that work at the site. Such a project was successfully completed and implemented for Thulamela in the Kruger National Park.

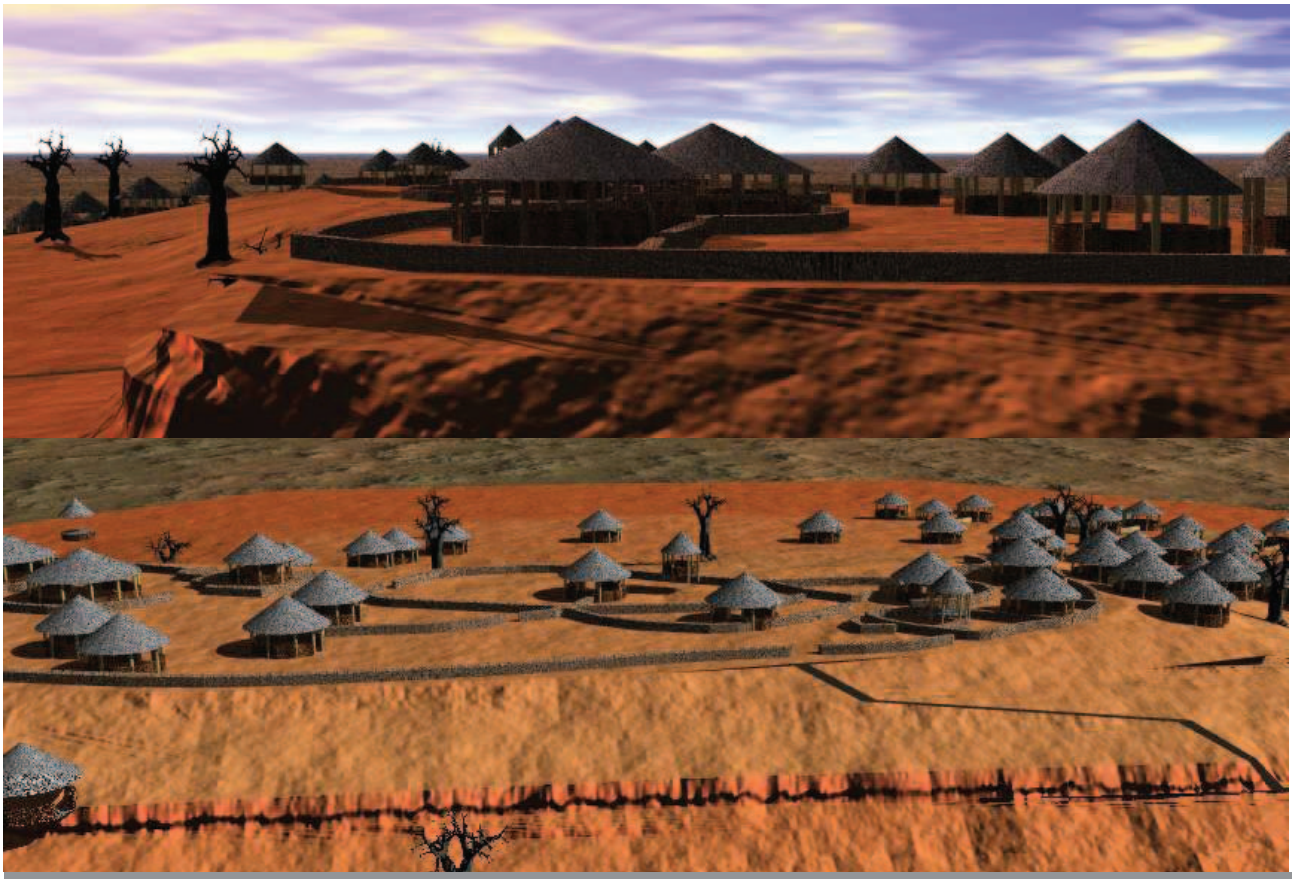
The oral traditions of the kings of the tribes will play a major part in ensuring that the digital reconstructions are as accurate as possible. Recording their culture and traditions will supplement the digital reconstruction of the heritage remains of Mapungubwe. These community leaders are grateful for the opportunity to have their own communities' heritage officially recorded and conserved for future generations. The researchers are looking into obtaining intellectual property rights for some of the discovered features, so that these communities' ancestral legacies can be legally protected.

Mapungubwe remembered

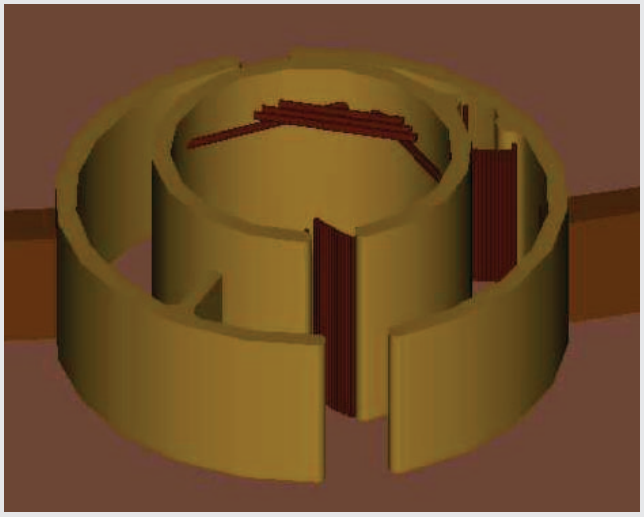
In August 2011, the University of Pretoria published *Mapungubwe remembered*, a 300-page book that celebrates the almost 80 years that the University invested in excavating, discovering and documenting the ancient life of the inhabitants of K2 and Mapungubwe.

The book was compiled to serve as a remembrance and research legacy; a tribute to the former inhabitants of this unique Iron Age settlement – considered to be the most important Iron Age site in the southern hemisphere; a reference work for students, researchers and anyone interested in the history of Mapungubwe; and lastly to tell the story of the University's involvement in the discovery and documentation of this site. It contains a special chapter on Jerry van Graan's recollection of how he and his father ventured into the Limpopo River Valley in search of the graves and treasures that they truly believed were waiting to be discovered.

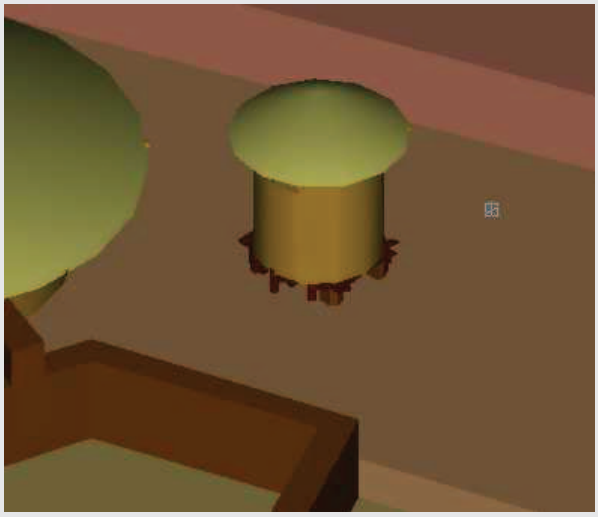
Mapungubwe remembered is a collection of articles written by 20 authors who have been intimately involved in the research into the discovery and documentation of Mapungubwe over the years. Each of the articles provides the authors' personal views and inputs regarding their respective research fields and involvement in the Mapungubwe project.



The digital reconstruction of the Iron Age settlement of Thulamela in the Kruger National Park.



A representation of the double-walled structures found at K2 that are thought to have been sleeping huts.



A maize storage hut that was digitally reconstructed, based on the trenches with poles found in the Mapungubwe area and the storage huts that can still be found in communities in the Limpopo region today.