MAEASaM

Mapping Africa's Endangered Archaeological Sites and Monuments

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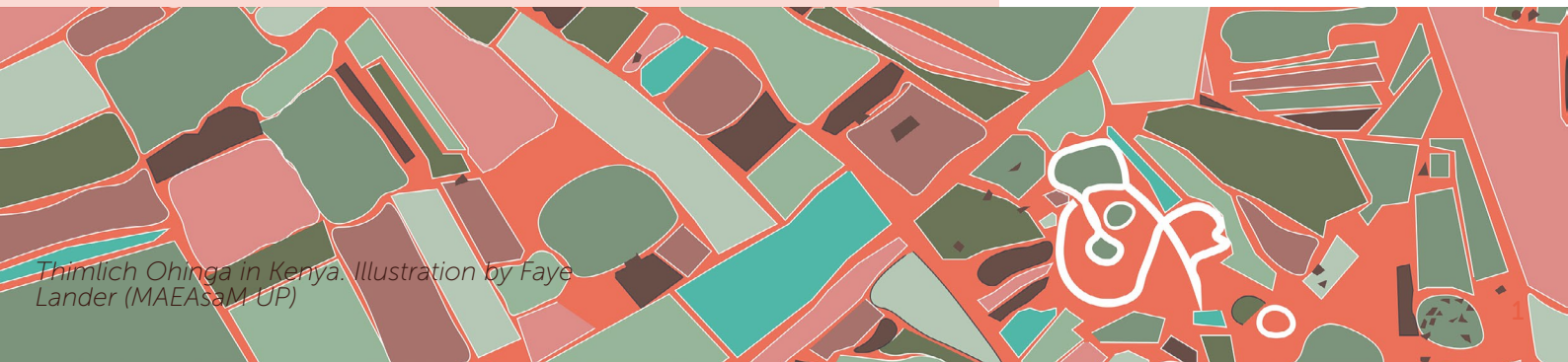
Above:In-country partners and collaborators at the entrance of the National Museums of Kenya (NMK) for the MAEASaM Project Symposium. Photograph by Charles Mwaniki (BIEA).

MAEASaM in Nairobi

Last year the project held its first public event to showcase Arches database alongside several activities highlighting the achievements made in Phase 1 (2020 – 2024). Collaborators from over 11 countries gathered in Nairobi, where the British Institute In Eastern Africa (BIEA) and the National Museums of Kenya (NMK) hosted members for three days of collaborative meetings and future planning for the long term sustainability of the project. In this issue we provide an overview of this salient event.

SNEAK PEEK



Thimlich Ohinga in Kenya. Illustration by Faye Lander (MAEASaM UP)

MAEASaM in Perspective: reflections from in-country partners

The Symposium offered the opportunity for all our in-country partners and collaborators to meet in-person collectively for the first time. The purpose was to share the progress made in Phase 1 and identify key strategic areas for Phase 2. The various country representatives provided important insights and perspectives on the current and future directions of heritage management in Africa and where we can achieve collaborative goals in the monitoring of sites and monuments across the countries with which we work.

DAOUDA KEITA
NATIONAL MUSEUM OF MALI:

The meeting of colleagues and sharing experiences was a highly valuable part of this project symposium.

DEMBA KÉBÉ
IFAN, UNIVERSITY of
CHEIKH ANTA DIOP in DAKAR:

It was valuable to discover more about the use of the database to improve the monitoring and preservation of Senegal's heritage, and the discovery of new sites using predictive methods.

GODHI BVOCHO
NATIONAL MUSEUMS AND
MONUMENTS OF ZIMBABWE:

Prioritising the monitoring of sites and monuments under threat is pivotal and gaining insights into the use of remote sensing techniques for this was useful.

Above: **A.** Daouda Keita (on the right) of the National Museum of Mali, in conversation with Paul Lane (left), PI of MAEASaM, and Bourahima Ouedraogo (centre) of the University of Social Sciences and Management, Bamako. **B.** Exhibition of thematic project posters at the Arches database showcase event held at the National Museums of Kenya (NMK). **C.** Pamela Ochungo (MAEASaM BIEA) and Christine Ogola (National Museum of Kenya) discussing the role of remote sensing and satellite image analyses for cultural heritage management and site monitoring. Photographs by Charles Mwaniki (BIEA).

HASSOUM CEESAY
NATIONAL CENTRE FOR ARTS AND CULTURE, THE GAMBIA:

The preservation of legacy records through digitisation is important for sustainability and longevity of the archive.

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Above: **D.** Phase 2 planning session with project partners and collaborators at the British Institute In Eastern Africa (BIEA). Photograph by Robert Bewley (Advisory Board Member of the MAEASaM Project).

ARCHES: a journey well traversed

Reflecting on their experiences on the development of the project's Arches database, Renier van der Merwe and Mahmoud Abdelrazek offer some insights into their journey with Arches.

Presenting the project database in Nairobi provided the opportunity to explore the database in its full capacity with our stakeholders and project collaborators. The database was brought to life with practical demonstrations on how to navigate the platform, search its rich collections and compare different site reports with one another.

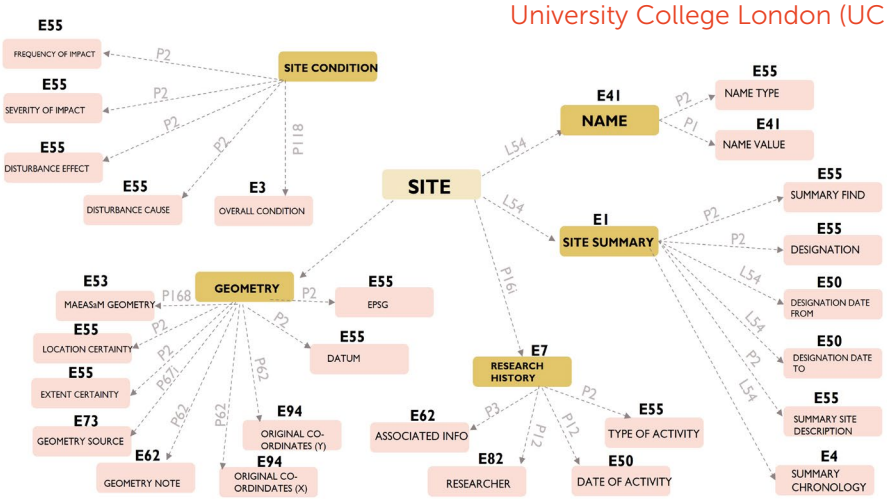
One of Arches' key strengths is its ability to combine complex and heterogeneous heritage information into a standardised, usable and shareable format alongside the visualisation powers of a geographic information system (GIS). The platform supports the management and discovery of data using a semantic graph structure, known as resource models. Each resource model contains specific attributes used to describe heritage information in an intuitive and understandable way that allows users to compare information across a wide geographic area and between different heritage locations.

Beyond computational coding, the development of the database requires active participation and feedback by our project collaborators and partners. It is only through this engagement that we can develop a more comprehensive database ensuring that it is useful for heritage managers for the long term. This has been a core principle that we have followed throughout the development stages.

The Site Resource Model (SRM) is the largest of the seven models developed for the database. It is based on the structure of museum archival site records but contains additional descriptive attributes including threat and condition assessments. We wanted this resource to maintain as much contextual information as possible so as not to deviate from the original records but also to structure this information in a standardised way so that it is easily searchable and can be preserved for the long term. One of our largest tasks to date has been the development of the project's vocabulary collections which are used to facilitate the standardisation of data entry. These collections offer thousands of terms used in African archaeology and related fields and cater for the huge diversity in different site types, chronological markers, archaeological finds, and much more.

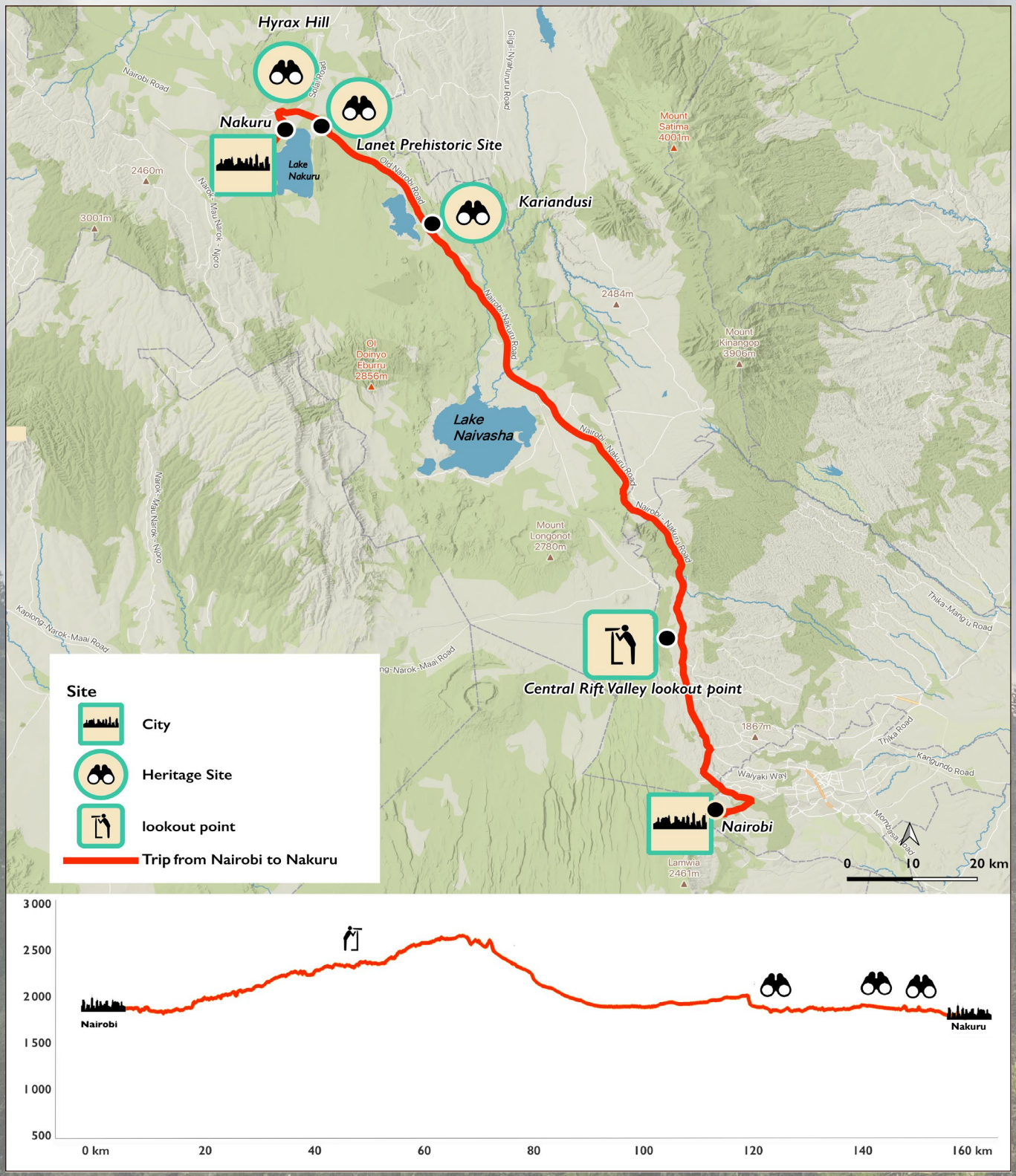
Of course, our journey with Arches is by no means complete. We are planning the implementation of additional resource models which we hope will enhance the platform for built heritage and future site monitoring. We are also continuing to expand our project's vast vocabulary collection with the addition of Arabic and French translations.

- Renier van der Merwe
University of Pretoria (MAEASaM UP)
- Mahmoud Abdelrazek
University College London (UCL)



Right: Part of the MAEASaM Site Resource Model modelled using CIDOC-CRM Ontology.

A day in the Central Rift Valley: exploring Hyrax Hill, Lanet and Kariandusi archaeological sites



Map produced by Nicolas Sagna
MAEASaM IFAN, University Ch. A. Diop

Nakuru is an exceptionally diverse heritage landscape and home to some of the most important archaeological sites for both early stone tool use and food production in eastern Africa. It is also a landscape that is seeing the rapid growth of urban settlement posing risk to these sites. As part of the project symposium, members spent a day travelling through the area discovering its history and visiting some of these remarkable sites. Angela Kabiru, from the BIEA, recounts the day's events.

It was a warm and bright morning as we left the bustling Nairobi City centre and headed west into the Great Rift Valley. As we drove, we passed gardens filled with bananas, coffee, and vegetables. Our first stop was a lookout point revealing the vast expanse of the Great Central Rift Valley. Despite light mist obscuring the Mau Escarpment, the breathtaking view provided an opportunity to appreciate one of the world's greatest geological formations up close. The narrow road used to transport us was built in 1944 by Italian prisoners of war. It descends to the valley floor before gradually ascending toward Lake Naivasha. This lake, situated at 1,884 metres above sea level, is the highest lake within Kenya's Rift Valley and is surrounded by farms that produce many of the world-famous roses for export. The Naivasha Basin is also notable for its sources of grey obsidian which have been found at numerous archaeological sites across eastern Africa.

Our next stop was at Hyrax Hill Prehistoric Site which is an important archaeological site near Nakuru. First excavated in the 1930s by Mary Leakey, it provides evidence of human occupation dating over 3,000 years ago. The site contains multiple settlement phases including Neolithic and Iron Age remains with structures such as Sirikwa hollows and burial cairns. Artifacts such as stone tools, pottery, and grinding stones suggest that early inhabitants practised food production including livestock-keeping and engaged in complex social and ceremonial activities. Today, Hyrax Hill is a protected site with an on-site museum displaying key findings that offer valuable insights into early food-producing communities in eastern Africa. Visitors can still see the rock hyraxes, after which the site is named.

After a quick water break, we arrived at Lanet Prehistoric Site, known for its Sirikwa hollows and Iron Age remains. Excavations here reveal evidence of early settlements and provide insights into the agricultural and pastoralist communities that once inhabited this part of the Rift Valley. Visiting these two sites was particularly important as they exemplify heritage sites located near rapidly growing urban settlements. This growth poses serious threats including urbanisation and encroachment. Although both sites are legally protected by the National Museums of Kenya (NMK), there have been attempts to encroach on these areas, highlighting the importance of heritage conservation through thorough documentation.

On our final stop, we entered the site of Kariandusi near Lake Elementaita.

All three sites - Hyrax Hill, Lanet and Kariandusi - are located close to the UNESCO World Heritage property - The Kenya Lake System. Inscribed in 2011, the property covers an area of approximately 32,034 hectares and includes three lakes - Elementaita, Nakuru, and Bogoria. Lake Elementaita is a key breeding site for the great white pelican with over 8,000 breeding pairs. Lake Nakuru National Park hosts one of the most spectacular ornithological displays on Earth, with millions of flamingos, whilst Lake Bogoria serves as a critical feeding ground for the Lesser Flamingo and supports the highest population of Greater Flamingos across the Great Rift Valley.

- Angela Kabiru
MAEASaM BIEA

Above: Lookout point of the Central Rift Valley. Photograph by Faye Lander (MAEASaM UP).

The site, first documented in 1928, dates to approximately 1 million years ago and is renowned for its abundance of Acheulean type hand axes and cleavers which provide evidence for early toolmaking. Fossilised bones of extinct and extant animals suggest that the site was once rich in natural resources. Kariandusi sits on what was once a much larger Lake Elementaita as indicated by the layers of diatomite that give the sediments their characteristic white colour today. A diatomite factory near the site has been in operation since 1950. Today, Kariandusi is a protected heritage site with an on-site museum showcasing its importance in human prehistory.

Above: (A) Visiting the site of Hyrax Hill. (B) Entrance to the Kariandusi Prehistoric Site. Photographs by Faye Lander (MAEASaM UP).

The project through a series of thematic posters

The project has produced a series of 13 thematic posters that capture the multiple activities, data workflows, and analyses undertaken during Phase 1 (October 2020 to June 2024) of the project.

Using infographics and imagery, these large-format posters cover five main themes: (1) Remote sensing for site identification; (2) Predictive modelling for potential archaeological sites; (3) Remote sensing for monitoring and management; (4) Digitisation of archaeological legacy records; (5) Developing Arches: a digital platform for heritage management. The case studies and examples focus on work carried out for Zimbabwe, Tanzania, Sudan, Senegal, Kenya and Botswana.

A downloadable version of each poster can be accessed at maeasam.org.

PROJECT WHEREABOUTS

Celebrate African World Heritage Day (May 6 - MAEASaM Annual Lecture)

Join us as we celebrate African World Heritage Day (2025) with the project's inaugural annual lecture series on 6 May 2025 at 17:00 GMT +1. Guest speaker Dr Vuyiswa Lupuwana, from the University of Cape Town (South Africa), will explore the virtual continuity of canon myths in an age of digital mutability and active forgetting, with a particular focus on examples drawn from South Africa and other parts of the continent. This is a hybrid event and open to all. Read full abstract and biography: https://www.arch.cam.ac.uk/events/distinguished-visitor-lectures

To register follow the link https://cam-ac-uk.zoom.us/webinar/register/WN_fNRgNIsOT66e98D0S2WT_w#/registration

Making and Recording Histories, Memories, and Heritage of German and British Colonialism in Tanzania (20 May)

Day 1, 20 May 2025, open workshop: register follow the link https://cam-ac-uk.zoom.us/webinar/register/WN_UjgFjM-MmQtiCrmbH12M_tg

The aim of this DAAD-supported workshop is to compare and contrast the work, opportunities and challenges of working with colonial heritage and the heritage legacies of colonialism across Africa, with a focus on eastern Africa.

27th Biennial Meeting of SAfA 2025 "Crossroads Through Time" Algarve, Portugal (July 21 – 26)

MAEASaM will be in Algarve, Portugal this year to present on a number of project activities at the 27th Biennial meeting of the Society of Africanist Archaeologists Conference. We are holding a number of sessions and will also provide a demonstration of our Arches project database. If any MAEASaM collaborators are planning on making their own way to Faro for the conference, please email MAEASaM-Admin as it would be good to meet there!

Open-access publications

- Ochungo, Pamela, et al. "Shoreline dynamics and cultural heritage sites in Kenya, Tanzania, and Senegal: integrating remote sensing and archaeological knowledge." Journal of Maps, 21(1) 2025. [Link]
- Lane, P.J. "Institutionalizing a "developer pays" principle for Commercial Archaeology as part of changing China-Africa economic relations". Afr Archaeol Rev (2025) [Link]

We're on BlueSky and LinkedIn

We are delighted to announce that we have two new social media accounts for sharing our exciting research!

A warm welcome to our LinkedIn page and Bluesky @maeasamproject.bsky.social. We hope you enjoy sharing in our news.

STAY IN TOUCH!

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MAEASaM, McDonald Institute for Archaeological Research, University of Cambridge, Downing Street, Cambridge CB2 3ER, UK
+44 (0)1223 333538