



AARD 2019

AFRICAN ARCHAEOLOGY RESEARCH DAY

UCL INSTITUTE OF ARCHAEOLOGY

NOVEMBER 9TH

ORGANISING COMMITTEE

- RACHEL KING
- KEVIN MACDONALD
- SIRIO CANÓS-DONNAY
- CLAUDIA NÄSER

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- UCL INSTITUTE OF ARCHAEOLOGY
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GENERAL SCHEDULE

TIME	COMMON ROOM (610)	ROOM 612	ROOM 410
09:00	REGISTRATION & COFFEE		
09:30			
10:00		S1: CRITICAL HERITAGE	S2: ESA & MSA
11:00			
12:00	LUNCH		
13:00		S3: SOUTH AFRICAN HOLOCENE	S4: NILE VALLEY
15:20	COFFEE & TEA		
15:40		S5: WEST & NORTH AFRICA	S6: PUBLIC ARCHAEOLOGY
17:40		S7: EAST AFRICA	S8: SUBSISTENCE
19:00		PLENARY	
19:15	RECEPTION		

ROOMS:

Common Room/ 610: 6th floor, end of the corridor

410: 4th floor, turn left from the lift/stairs

612: 6th floor, next to the common room



SESSION SCHEDULE

SESSION 1: CRITICAL HERITAGE STUDIES FOR AFRICAN HERITAGE

Session Chairs: John Giblin (National Museums Scotland) & Rachel King (UCL).

09:30 Chris Wingfield (UEA) *Decolonising the Missionary Road? Knives (and guns) as African (and British?) Heritage.*

09:50 John Kelechi Ugwuanyi (Nsukka/York), *Place/Material, Discovery and Discourse in Africa: Questioning 'Our' Power in the Neoliberal Regime of Heritage Studies*

10:10 Charlotte Joy (Horniman/Goldsmiths), *Risk and the two archives*

10:30 Eyob Derillo (BL), *Restitution Repatriation and Return: Displaying the Maqdala Manuscripts.*

10:50 Nik Petek-Sargeant (BM) et al *Sharing knowledge or exporting heritage: Critical approaches to documenting endangered practices for mass-availability*

11:10 Richard Bigambo (Dar Es Salaam) *Community-Based Practices in Safeguarding Intangible Cultural Heritage in North-western Tanzania*

11:30 Elinaza Mjema (Dar Es Salaam) & Paul Lane (Cambridge), *The Role of Co-Production Networks in Fostering Community Engagement with Cultural Heritage on the Tanzanian coast.*

11:50 Group discussion

SESSION 2: EARLY & MIDDLE STONE AGE

Session Chair: Julia Lee-Thorpe (Oxford).

10:00 Julia Lee-Thorp (Oxford) et al., *Palaeoecology associated with the Early Middle Stone Age in Wonderwerk Cave, Northern Cape, South Africa.*

10:20 Patrick Randolph-Quinney (Central Lancashire) & A. Sinclair (Liverpool), *Mapping the Earlier-Middle Stone Age transition: landscape archaeology of Makapansgat and the eastern Waterberg, Limpopo, South Africa.*

10:40 John Gowlett (Liverpool) & A.I.R Herries (La Trobe), *Discoveries from the Acheulean site of Cornelia in the Free State, South Africa: the research led by James Brink*



11:00 Nick Blegen (Cambridge) *Tuffs, time and the tempo of modern human evolution: insights from tephrostratigraphy and archaeology in the Nyanza Rift, Kenya.*

11:20 Caroline Kombh (Liverpool/Nairobi National Museum) *et al.*, *The Mineralogy of Argillaceous Sediments in Quaternary Hominid Environments at Kilombe Caldera, Kenya.*

11:40 David Pearce (Witwatersrand) *Chronology of southern African rock art: implications for interpretation.*

SESSION 3: SOUTH AFRICAN HOLOCENE

Session Chair: Peter Mitchell (Oxford)

13:00 Brian Stewart (Michigan), Peter Mitchell (Oxford) *et al.* *Strontium analysis of ostrich eggshell beads as a means of charting past hunter-gatherer social networks in southern Africa.*

13:20 Simon Underdown (Oxf. Brookes) *et al.* *Sedimentary aDNA and Palaeoenvironmental Change in Southern Africa: Preliminary Results from Grassridge Rockshelter.*

13:40 Charlie Arthur (Oxford), *Hunter Gatherer Temporality: A Southern African Perspective.*

14:00 Helen Fewlass (Bristol) *et al.* *Of milk and men: dairying by hunter-gatherers in the highlands of Lesotho in the late first millennium AD.*

14:20 Iris Guillemard (Paris Nanterre) *Late Holocene lithic technologies in southern Africa: a glimpse from three regions.*

14:40 Shelona Klatzow (Capetown) *The Plaatberg on the Caledon Bastaards: raiders and traders or pious converts of the Wesleyan Missionary Society?*

SESSION 4: NILE VALLEY

Session Chair: Claudia Näser (UCL)

13:00 Jane Humphris (BIEA), *New insights into early iron production at Meroe, Sudan.*

13:20 Mike Brass (UCL) & Isabelle Vella Gregory (Cambridge), *First and second seasons of the UCL – UoK - NCAM Expedition to the Southern Gezira (Sudan): Jebel Moya.*

13:40 Samantha Tipper (Durham), *Spinal pathology in Ancient Nubia.*

14:00 Andrew Jaggs (UCL), *The Depths of Deception: Implications of Africanists segregating and neglecting Nile Valley Archaeology in relation to sub-Saharan Africa.*



14:20 Thomas Scheibner (Ind. Berlin), *Ancient water management technology in the hinterland of the Nile valley – A case study from the Kushite site of Musawwarat es-Sufra.*

14:40 Anne O'Donnell (UCL/Witwatersrand), *Shrouded in Divinity: Roman Egyptian Burial Shrouds from 1st to 3rd Centuries AD.*

SESSION 5: WEST & NORTH AFRICA

Session Chair: Sirio Canós-Donnay (Incipit-CSIC)

15:40 Rocco Rotunno (Rome), *Continuity and change: new data from the Takarkori pottery assemblage of Early to Middle Holocene Central Sahara.*

16:00 Sam Nixon (BM), *Communities, economies, and exchange networks in the Moroccan pre-Sahara: new investigations at Tamdult.*

16:20 Farida Mansouri (Algiers), *Columbarium of The Site Thubursicum Numidarum (Khamissa-Souk Ahras, Algeria).*

16:40 Phillip Allsworth-Jones (Sheffield), *Archaeology in the "Nigerian Field".*

17:00 Sirio Canós-Donnay (Incipit-CSIC), *The Pathiana Archaeological Landscapes Project (Senegal).*

17:20 Kevin MacDonald (UCL), *Polity and Rituality: Conceptualizing the Sacred Centres of Waalo and Dô.*

SESSION 6: PUBLIC ARCHAEOLOGY

Session Chair: Pauline Harding (UCL)

15:40 Rosa Moll (Witwatersrand) & Carmen Martin Ramos (UCL), *Perspectives on being an archaeologist: lithic studies and public outreach.*

16:00 Bolagi Josephine Owoseni (UEA), *Environmental and Social Impact assessments of Cultural Heritage Issues: A view from Ilorin, North central, Nigeria.*

16:20 Annalisa Christie (UCD) & E. Ichumbaki *Co-creating Modules on Heritage Management in Africa.*

16:40 Stephanie Wynne-Jones (York), *Co-creating resources for heritage and tourism in Kilwa region, Tanzania.*

17:00 Claudia Näser (UCL), *Doing archaeology in post-uprising Sudan.*



17:20 Kenneth Aitchison (Heritage Management), *Closing the Back Way. Heritage Management and Migration in The Gambia.*

SESSION 7: EAST AFRICA

Session Chair: Jane Humphris (BIEA)

17:40 Nadia Khalaf (Exeter), *Mapping and monitoring Africa's archaeology using open source satellite imagery, a case study from Islamic Ethiopia.*

18:00 Nicolas Nikis (Cambridge) & Laurence Garenne-Marot (MRAC), *Pulling the wires in the trade networks. Metallurgical techniques diffusion in South-Central and East Africa in the 19th century AD.*

18:20 Ceri Ashley (BM), *The photographic collection of E J Wayland from eastern and southern Africa, July - September 1929.*

SESSION 8: SUBSISTENCE

Session Chair: Kevin MacDonald (UCL)

17:40 Mark Horton (Royal Agricultural) *et al.*, *Where are all the fish bones? First results from East Pemba Maritime Cultural Heritage Project.*

18:00 Laurent Nieblas-Ramirez (Brussels), *Fish bones from Bolondo (DR Congo).*

18:20 Juliette Milon (CNRS- Musée Histoire Naturelle), *Diffusion of Cotton in Northeastern Africa and Arabia: New Morphometric and Quantitative Data.*

18:40 Louis Champion (Frankfurt/UCL) *et al.*, *New evidence on the development of pearl millet and fonio economies in Nigeria: archaeobotanical results from the Nok region.*



ABSTRACTS

SESSION 1: CRITICAL HERITAGE STUDIES FOR AFRICAN HERITAGE

Decolonising the Missionary Road? Knives (and guns) as African (and British?) Heritage

Chris Wingfield (University of East Anglia); Chris.Wingfield@uea.ac.uk

This paper will highlight initial work as part of the *Re-collecting the Missionary Road* project, which has attempted to integrate fieldwork at the historic mission station at Kuruman in South Africa with research to locate items in museum collections in Europe that originated in the historic encounters that unfolded in and around the site. The paper will consider historic flows of material between Africa and Europe over two centuries, and the ways in which these flows reshaped environments in both Africa and Europe around themselves. The paper will attempt to ask what it would mean for such a project to successfully operate in a decolonial mode, and how to understand a term such as 'African Heritage' in relation to such a project.

Place/Material, Discovery and Discourse in Africa: Questioning 'Our' Power in the Neoliberal Regime of Heritage Studies

John Kelechi Ugwuanyi (University of Nigeria/University of York), john.ugwuanyi@unn.edu.ng

This paper examines the processes of heritage making through 'discovery' of site/material, and the way 'we' - professional experts - appropriate them through discursive formation. It engages how the power play in the processes and professional 'ego' makes it impossible to achieve the inclusion of members of indigenous/local community (that include humans and nonhumans) in heritage management in most African countries. Utilising ethnographic evidence collected from the Igbo of southeast Nigeria, the paper argues that 'discursive formation' and professional expertise 'power' obscure local perspectives of heritage conservation, thus, alienating members of the indigenous/local communities from national heritage management projects in Africa. Considering the Igbo heritage ontologies, it argues for a paradigm shift that would bring local knowledge systems into national heritage discourses to achieve inclusion and sustainability.

Risk and the two archives

Charlotte Joy (Horniman Museum/Goldsmiths), c.joy@gold.ac.uk

I will explore how the concept of 'risk', when deployed in relation to one particular site – the archaeological site of *Djenné-Djeno* in Mali – creates two very different archives. The concept of risk and attempts at protection has led to a series of ongoing acts of promotion and dissimulation of Malian material culture. Through museum exhibitions, ICOM's Red List and media interest, the visibility of Middle Niger material culture has fuelled the illicit art trade. The whole conceptualisation of Malian cultural heritage has been premised around the idea of risk (not least because the ex-President of Mali was an archaeologist who excavated at *Djenné-Djeno*). As a consequence, Mali has two



archives – one, a small legitimate archaeological archive of provenanced objects, information about which is known and shared. The second, a vast unprovenanced archive of objects that circulate within the realm of art history – in museums, private collections and through the illicit art market. This second archive is hidden from most heritage professionals in Mali and has been disinherited by archaeologists as dangerous and illegitimate.

This paper will examine when the second ‘dangerous’ archive becomes present – through international art sales, through sales to finance international terrorism, at times in art exhibitions and so on. Why is this aesthetic/art historical de-contextualised archive so removed from the ‘official’ archaeological archive? Why is it dangerous? What is at stake? How do the vast flows of wealth, political and economic power that organise the illegitimate archive appear and challenge heritage professionals?

Restitution Repatriation and Return: Displaying the Maqdala Manuscripts.

Eyob Derillo (British Library), eyobderillo@hotmail.co.uk

The Magdala Manuscripts are among the highlights of the British Library's rich international collections of African manuscripts. The manuscripts total 349 volumes and include works dating back to the 13th century. The manuscripts were all taken from the King Theodore II's capital at Maqdala following the Abyssinian Expedition of 1867-68. In 2018 I curated the exhibition, "*African Scribes: Manuscript Culture of Ethiopia*," in the British Library. Being the library's first exhibition devoted to Ethiopian manuscripts, it prompted questions from the research community, journalists, writers and the general public, focused on "what was the catalyst underlying a decision to hold the exhibition?" The most obvious was the 150th Anniversary of the Abyssinia Expedition, but there were also numerous other factors. While the legislative processes of restitution and repatriation continue to rage above the curatorial level, this talk will bring to light the inequalities that continue to frame our work with African collections in museums today.

Sharing knowledge or exporting heritage: Critical approaches to documenting endangered practices for mass-availability

Nik Petek-Sargeant (British Museum), NPetek@britishmuseum.org

Samuel Lunn-Rockliffe (Institute for Global Prosperity UCL)

Samuel Derbyshire (University of Oxford), Samuel.derbyshire@sjc.ox.ac.uk

As museums are expanding their remit from collecting, preserving and exhibiting objects to collecting ‘material knowledge’ and intangible heritage associated with them, the methods they use and challenges they encounter also change. Much of this ‘knowledge’ is associated with practices and objects that are considered heritage but are disappearing due to a rapidly changing economy, identity and politics. A hotspot for collecting knowledge is Africa due to the many ethnographic collections in European institutions and the intended goal of the research is to make it publicly available. This raises several concerns regarding knowledge ownership and access, the legality of the recorded practices, the decoupling of ‘knowledge’ from its associated culture and environment, and source community benefits to name a few.



This paper will use the *Endangered Material Knowledge Programme (EMKP)*, which stores records of endangered crafts and practices in an online open-access repository, and two associated projects on the material culture of beekeeping in the Embobut forest and the Turkana initiation ritual (both in Kenya) as its case study. By discussing issues and ethical implications of collecting 'material knowledge' by western institutions for public availability, we will provide insight into EMKP's ongoing work on preserving and presenting knowledge in a culturally sensitive manner to avoid a new digital colonialism, the relationship between tangible and intangible heritage in the digital age, and the key role of researchers in negotiating with communities.

Community-Based Practices in Safeguarding Intangible Cultural Heritage in North-western Tanzania

Richard Bigambo (Dar es Salaam University), rbigambo@udsm.ac.tz

Recent years have seen growing interests and urgency to protect intangible cultural heritage in the forms of traditions, practices and skills that are threatened by different factors such as modernisation and globalisation. In doing so, institutions, including governments, NGOs and international organisations have suggested different safeguarding measures. However, these proposed measures, in most cases, have neglected the knowledge and skills used by local communities in safeguarding the traditions, practices, and expressions they deem valuable. This paper will argue that understanding the means used by the community will not only improve how such forms of heritage are safeguarded, but also the ways the community members are involved in the safeguarding process. This study takes the Jita people in Tanzania as an example to explore how community knowledge and practice can be part of the present-day safeguarding practices.

The Role of Co-Production Networks in Fostering Community Engagement with Cultural Heritage on the Tanzanian coast

Elinaza Mjema (University of Dar es Salaam), emhifadhi@yahoo.com
Paul Lane (University of Cambridge), pjl29@cam.ac.uk

Various cultural heritage stakeholders engage in activities aimed at protecting and promoting cultural heritage in Tanzania. These activities include conservation, research, teaching and tourism, conducted in government offices, tourist companies and universities. The activities of these stakeholders are important but due to lack of dialogue that could create networks between them, their contributions to the protection of heritage are less effective and often duplicate each other. This paper focuses on the role played by the AHRC-funded Co-Production Networks for Community Heritage (CONCH) project in Tanzania which aimed to enhance the structure of engagement of key stakeholders in the cultural heritage of the Tanzanian coast. The paper depicts the findings concerning the roles played by CONCH in creating a co-produced avenue for practicing best skills sharing and dialogues about community heritage in Tanzania. The outcome from workshops and a field school in Pangani will be presented. This paper provides some food for thought to both scholars and practitioners. On the one hand, it advances the research in the field of co-production networks for community heritage, applying this concept in an innovative way to heritage



management. On the other hand, it points out the role of co-production in enhancing the quality of the existing community structure dedicated for heritage management.

SESSION 2: EARLY & MIDDLE STONE AGE

Palaeoecology associated with the Early Middle Stone Age in Wonderwerk Cave, Northern Cape, South Africa.

Julia Lee-Thorp (University of Oxford), julia.lee-thorp@arch.ox.ac.uk

Liora Kolska Horwitz (Hebrew University of Jerusalem)

Michaela Ecker (Universität Kiel CAU)

James Brink (National Museum, Bloemfontein)

Sharon Holt, National Museum, Bloemfontein

Michael Chazan (University of Toronto)

The onset of the Middle Stone Age (MSA) in Africa was arguably a turning point in the evolution of modern humans, manifest in the adoption of numerous innovations in the realms of technology, diet and behaviour. Environmental drivers have been implicated in these shifts, amongst other possibilities. For example, Marean and colleagues (2014) proposed that the onset of the MSA in the Cape Floral-South Coast Region of South Africa in MIS 6 was associated with extremely cold and dry conditions during which modern humans survived in refuge sites such as Pinnacle Point. However, sparser evidence for the early MSA in sites in the interior of South Africa may suggest that extreme aridity did not prevail throughout the subcontinent, or at least, not continuously. Here we discuss the palaeoecological implications of the faunal assemblage recovered from Wonderwerk Cave during a period identified to the Early MSA on lithic and chronological evidence. In summary, our results do not support hypotheses for widespread aridity in the period of the MSA represented at Wonderwerk.

Mapping the Earlier-Middle Stone Age transition: landscape archaeology of Makapansgat and the eastern Waterberg, Limpopo, South Africa.

Patrick Randolph-Quinney (University of Central Lancashire), PRandolph-Quinney@uclan.ac.uk

Anthony Sinclair (University of Liverpool),

Makapansgat is one of the most important palaeo-archaeological landscapes in southern Africa. Its principal site, the Cave of Hearths, is the most deeply-stratified Stone Age site in Limpopo province. Recent work (from 2014) has used a combination of GIS, field-walking, drone survey, and satellite imaging focussing on the Mogalakwena River valley in the eastern Waterberg. We have identified significant Early and Middle Stone Age (MSA) deposits associated with calcrete pans and outflow systems venting from the margins of the Malmani Dolomites within which Makapansgat sits. A spatially extensive lithic assemblage has been identified at five loci spanning some 5km from North to South. Lithics intercalated within these calcretes appear to represent either primary or near-primary open-



air deposits overlain by Kalahari sands. MSA-dominated calcrete deposits have already been recovered to the South during the earlier 20th Century from sites such as Ouitloop, and from Revil Mason's systematic excavations at Skoonheid and Blaubank 50km to the Southeast.

In this paper we compare our ongoing work with the results of Mason's excavations and other survey work conducted in the region. We shall argue that the Mogalakwena presents the largest geomorphologically stable corridor for archaic and modern humans through the Waterberg Mountains, linking the Kalahari to the North, with the productive Springbok Flats and Nyl River systems to the South. Ongoing research presents a critical opportunity for understanding geographical, ecological, technological and cultural variability of hominins across the ESA-MSA transition in southern Africa and the Pan-African emergence of *Homo sapiens*.

Discoveries from the Acheulean site of Cornelia in the Free State, South Africa: the research led by James Brink

J.A.J. Gowlett (University of Liverpool), gowlett@liverpool.ac.uk

A.I.R. Herries (La Trobe University).

The Acheulean site of Cornelia-Uitzoek, in the Free State of South Africa, has been investigated over a long period by a team led by the late James Brink, whose recent research we highlight here. The sites lie in a block of Pleistocene sediments preserved and exposed on the east bank of a small river which flows north to join the Vaal about 15 km away. The principal site occurrence dates to about one million years, as determined by the palaeomagnetic and faunal records. It preserves numerous faunal remains largely of bovids. It has also yielded one hominin tooth of *Homo erectus*, and an Acheulean assemblage made mainly of local hornfels, and including numbers of large handaxes and cleavers. In survey in recent years we were able to find Acheulean artefacts at several higher levels, comprising occasional bifaces and numbers of cores and flakes of quartzite. There are slight indications of MSA activity, which is more strongly represented in a neighbouring valley. Cornelia can be compared usefully with other South African Acheulean sites such as Amanzi and those on the Vaal: it is a rare dated Acheulean site in the interior of South Africa with firm stratigraphy and an invaluable record of late Early Pleistocene fauna.

Tuffs, time and the tempo of modern human evolution: insights from tephrostratigraphy and archaeology in the Nyanza Rift, Kenya.

Nick Blegen (University of Cambridge), nb599@cam.ac.uk

Modern human behavioral evolution in the Late Pleistocene (~130,000–11,000 years before present) of Africa is complex with Late Stone Age (LSA) technologies appearing, and Middle Stone Age (MSA) technologies disappearing, at different times in different places across the continent. Explaining this pattern requires a precise chronological and stratigraphic framework for past human behavior. This paper uses the science of tephrostratigraphy, the chemical correlation and dating of volcanic ashes (tephras), to provide chronological and stratigraphic context for modern human behavioral evolution. This study links artifact and fossil bearing outcrops



over an area >16,000 km² throughout equatorial Kenya. Tephra correlations to the sites of Simbi (GrJe-2) and Muguruk (GqJc-1), as well as the newly excavated sites of Kapsarok 1 (GrJe-9) and Anderea's Farm 1 (GrJe-8) provide ~50–36 ka ages for these MSA sites. Correlations extending to tephra layer (VA3) overlying LSA materials at the site of Enkapune ya Muto (GtJi-12) in the Naivasha basin further demonstrate interstratification of MSA and LSA technologies in East Africa.

This work thus provides robust chronological and stratigraphic evidence indicating significant technological variability across Late Pleistocene equatorial East Africa for a prolonged period between ~50 and ~35 ka. While focused on Late Pleistocene deposits, the tephrostratigraphy presented here also incorporates Middle Pleistocene deposits, including the MSA site of Songhor (GqJe-1), as well as terminal Pleistocene and Holocene exposures including sediments from the Lake Victoria V95-1P core. This tephrostratigraphy thus provides the essential framework for future archaeological and paleoenvironmental landscape studies across the Victoria basin and throughout a larger area of equatorial East Africa.

The Mineralogy of Argillaceous Sediments in Quaternary Hominid Environments at Kilombe Caldera, Kenya.

Caroline Komboh (University of Liverpool/ Nairobi National Museum), Caroline.Komboh@liverpool.ac.uk

John Gowlett (University of Liverpool)

Sally Hoare (University of Liverpool)

Ian Stanistreet (University of Liverpool)

James Utley (University of Liverpool)

Stephan Rucina (Nairobi National Museum)

Harald Stollhofen (Friedrich-Alexander Universität Erlangen-Nürnberg)

Rosa Maria (Catalan Institution for Research and Advanced Studies).

Rebecca Muthoni (Nairobi National Museum)

This study is dedicated in contributing to the establishment of past environmental conditions of Kilombe Caldera in Kenya. The Caldera is recorded to be an extinct volcano with a crater that is partly infilled with lake sediments. The study area is located approximately five kilometres North-west of the Kilombe main Acheulean site. This main site is long known to be exciting with its extraordinary density of bifaces as established by Gowlett and other scholars in 2015. Argillaceous sediments are weathered rock and minerals rich in clays. These clays can be used in studying past environments because they have undergone different processes such as weathering and diagenesis that can be traced back to the original rock (Paleogeography/source rock) and depositional conditions of the paleolake in the caldera.

To achieve this objective, sediment samples and survey data collected from the study area were analyzed using: X-ray diffraction (proven to provide information of the source rock and any chemical changes that resulted from effects of different weathering process); Scanning Electron Microscopy (SEM) (to distinguish between the different depositional environments); Coulter Counter (particle size distribution to establish the important changes in the



sedimentary environment); and Loss on Ignition (LOI) (to provide an index of biological productivity). The preliminary general mineralogy results indicate presence of illite, interstratified kaolinite-smectite, smectite, traces of plagioclase, k-feldspar and quartz. Results obtained from the other analytical methods are undergoing interpretation.

Chronology of southern African rock art: implications for interpretation.

David G. Pearce (University of the Witwatersrand), David.Pearce@wits.ac.za

Besides that art which is clearly historical, hunter-gatherer rock art in southern Africa has been studied in a mostly ahistorical manner. This situation is largely because there has been little firm chronology of any sort to which that art could be tied. As new techniques make direct radiocarbon dating of individual rock paintings a reality, we need to consider whether chronology can be integrated with existing interpretative paradigms. This paper examines these methodological implications of the new chronological information. It questions how analogies drawn from hunter-gatherer ethnographies may be used to interpret paintings several millennia in age.

SESSION 3: SOUTH AFRICAN HOLOCENE

Strontium analysis of ostrich eggshell beads as a means of charting past hunter-gatherer social networks in southern Africa.

Brian Stewart (University of Michigan), bastew@umich.edu

Genevieve Dewar (University of Toronto)

Peter Mitchell (University of Oxford)

Yuchao Zhou

James Gleason (University of Michigan)

Joel Blum (University of Michigan)

The roots of long-distance social networking run deeper than Facebook. At some point in the Pleistocene, hunter-gatherers began exchanging 'non-utilitarian' artefacts like beads over hundreds, and sometimes thousands, of kilometres. Among ethnographically documented foragers these networks symbolically link distant groups, acting as social adhesives that enhance fallback opportunities, information availability and reproductive potential, among other benefits. Charting the evolution of long-distance social networks can thus help determine when, why and how our species began harnessing material culture to mitigate risk. The archaeology of Pleistocene Africa is central to this endeavour given our species' anatomical and behavioral origins. This paper presents the preliminary results of strontium isotope analyses of ostrich eggshell beads recovered from late Pleistocene and Holocene contexts in two sharply contrasting southern African environments: the Namaqualand Desert (South Africa) and Maloti-Drakensberg Mountains (Lesotho). Our data demonstrate the existence and persistence of highland and dryland exchange network, and hold implications for tracing the development of social strategies for long-term survival in the southern African interior.



Sedimentary aDNA and Palaeoenvironmental Change in Southern Africa: Preliminary Results from Grassridge Rockshelter

Simon Underdown (Oxford Brookes University/ University of Pretoria sunderdown@brookes.ac.uk)

Chris Ames (University of Wollongong/University of Victoria)

Ben Collins (University of Manitoba/University of Cape Town)

Grassridge Rockshelter is located in the under-researched interior grasslands of the Eastern Cape, South Africa. The site contains archaeologically rich occupations dating to the late Pleistocene (~45,000-28,000 years ago), terminal Pleistocene (~14,000-11,600 years ago), and mid-Holocene (~7,000 years ago). Preliminary palaeoenvironmental research suggests substantive local and regional changes in precipitation, vegetation, and animal communities between these three periods, with associated shifts in past humans technological, subsistence, and social behaviours. Sedimentary ancient DNA offers a remarkable source of potential data about ancient human ecology. Ancient sediments contain a rich source of aDNA derived from eukaryotic organic sources, prokaryotes and viruses.

In June 2019 samples were collected from all three occupations and control samples from the modern surface of the shelter and bedrock levels. To minimise the risk of contamination by modern DNA a custom developed sample contamination prevention protocol was followed during sampling activities. Sediments will be processed in the dedicated ancient DNA laboratory at the Institute of Genomics at the University of Tartu following published protocols of Slon et al (2017) and Rohland et al (2018) and shotgun sequenced. This analysis will allow the identification of species present, including humans and ancient pathogens, to inform on ancient subsistence strategies and environmental conditions.

Hunter Gatherer Temporality: A Southern African Perspective

Charles Arthur (University of Oxford), charles.arthur@merton.ox.ac.uk

This paper argues that hunter-gatherer temporality is often overlooked by archaeologists because of underlying material culture and economic biases. Alternative ways of thinking are outlined that pay equal attention to relations between people and non-human-made objects and ambiguously anthropogenic things. An important part of this involves learning to work with the other-than-sequential qualities of stratigraphy and flaked stone assemblages. These insights are discussed in relation to 600–1700 calendar years of early Holocene stratigraphy at Ntloana Tšoana in western Lesotho. It is suggested that rockshelter residues may have acted as a stabilising force within the fluid socio-material world of hunter-gatherer groups.



Of milk and men: dairying by hunter-gatherers in the highlands of Lesotho in the late first millennium AD.

H.K. Fewlass (University of Bristol), helen_fewlass@eva.mpg.de

P.J. Mitchell (University of Oxford)

E. Casanova (University of Bristol)

L.J.E. Cramp (University of Bristol)

The expansion of Bantu-speaking Iron Age farmers through sub-equatorial Africa in the early centuries AD saw the large-scale displacement and/or assimilation of hunter-gatherers. Recovery of Early Iron Age artefacts from hunter-gatherer contexts at the site of Likoeng, Lesotho, has been argued to indicate contact during the second half of the first millennium AD between highland hunter-gatherer groups and Bantu-speaking agropastoralist communities settled in more lowland areas of south-eastern Africa. However, disagreement between existing archaeozoological studies and ancient DNA means that the possibility that those hunter-gatherers actually kept livestock themselves remains controversial.

Here we report the first analyses of pottery-absorbed organic residues from two hunter-gatherer and one agriculturalist sites in highland Lesotho, which offer an alternative proxy for reconstructing prehistoric subsistence practices. Our results provide the first evidence for the exploitation of dairy products by hunter-gatherers, directly dated to the seventh century AD at Likoeng and the tenth century AD at the nearby site of Sehonghong. Distinct patterning in the stable isotope values of these residues compared to those from our agriculturalist site most likely arises from control and management of livestock in the landscape. These results contribute to the debate surrounding the nature of contact between incoming agricultural populations and indigenous groups in south-eastern Africa, providing compelling evidence for the keeping of livestock by hunter-gatherer groups and their likely incorporation as ancillary resources into their subsistence strategies.

Late Holocene lithic technologies in southern Africa: a glimpse from three regions.

Iris Guillemard (Paris Nanterre University/University of the Witwatersrand), iris.guillemard@gmail.com

The Late Holocene Later Stone Age (LSA) sequence of southern Africa integrates a wide array of hunting-gathering societies living in different environments. From around 2000 BP, evidence of sheep and pottery occurs in LSA sites, followed a few centuries later by the development of pastoralism and agriculture. In this complex social landscape, different lithic traditions have been recognised, more generally attributed to hunter-gatherers. In this presentation, three contrasting examples of lithic technologies from assemblages dated to the Late Holocene will be introduced: Balerno Main Shelter (Limpopo – South Africa), Mafusing (Eastern Cape – South Africa) and Leopard Cave (Erongo – Namibia). The question of change and continuity in the lithic technologies of these areas, before and after the appearance of pottery, will be discussed.



The Plaatberg on the Caledon Bastards: raiders and traders or pious converts of the Wesleyan Missionary Society?

Shelona Klatzow (University of Cape Town), sklatzow@gmail.com

The nineteenth-century Wesleyan mission station of Plaatberg on the Caledon was situated in the turbulent frontier zone of the Caledon River Valley and surrounding area, which by the mid-1830s was home to a number of Wesleyan Mission Stations. The focus of my research falls on the Dutch-speaking Bastards of Plaatberg, under the leadership of Captain Carolus Baatjes, who resided at the Wesleyan mission station of Plaatberg on the Caledon from 1833 to 1865. The Bastards trekked across the Orange river from the Cape colony into Transorangia, well equipped with wagons, horses, guns and ammunition. They showed great skill in adapting to the volatile frontier world in the way that they negotiated the move from colonial farm workers, servants, slaves or disposed Bastards in the colony to successful traders, raiders and farmers in the Caledon River Valley. As new inhabitants of the Wesleyan mission station they had to negotiate their way through the aspirations of the missionaries for Christian converts, balanced with their own traditional way of life and belief systems.

Missionary records reflect the inhabitants of Plaatberg from their own Christian, colonial point of view. We therefore see the Bastards through their eyes, the eyes of lower and middle class men from nineteenth century imperialist Britain. What must not be underestimated is the Bastards ability to accept, reject and manipulate missionary influence. By investigating the Bastards organisation of space on both village and household level, including a study of the material remains of household tasks, we may be able to discern how they negotiated and mediated western Christian influence. Using historical texts combined with the archaeological investigation of the village, I hope to get a more holistic picture of the Bastards of Plaatberg.

SESSION 4: NILE VALLEY

New insights into early iron production at Meroe, Sudan

Jane Humphris (British Institute in Eastern Africa), biea.director@thebritishacademy.ac.uk

Ongoing archaeometallurgical research at Meroe, Sudan, has recently revealed insights into large-scale iron production dating to the first millennium BC. The discovery of two well-preserved early furnace workshops enables us to develop our understandings about the organisation of, and technological approach to, iron production at Meroe during the very early days of the Kingdom of Kush. This presentation will highlight some unique features of these early workshops and consider how such archaeometallurgical remains can be used to consider the broader role and impact of iron production and iron producers.



First and second seasons of the UCL – UoK - NCAM Expedition to the Southern Gezira (Sudan): Jebel Moya.

*Michael Brass (UCL), michael.brass@ucl.ac.uk
Isabelle Vella Gregory (Cambridge)*

This project uses Jebel Moya (south-central Sudan) as a case study to examine how pastoral communities were constituted, inscribed their social identities in the landscape and facilitated trade. It does so by adopting an integrated approach, with bioarchaeological, archaeobotanical, isotopic, C¹⁴, material culture (including lithics and pottery) and zooarchaeological analyses combined with spatial data to reconstruct the health, expressions of social identity and lifestyles of the occupants of Jebel Moya. It is a joint project between UCL, the University of Khartoum and the National Corporation of Antiquities and Museums, the controlling Sudanese antiquities service. It is jointly directed by Dr Brass and Professor Ahmed Adam, who was born and raised in south-central Sudan approximately 30km to the west of the site.

New excavations, initiated in 2017 and continued in 2019, show a longer, more continuous occupation of the site than has been previously recognised. Archaeozoological and archaeobotanical analyses provide evidence for domesticated taxa. Archaeobotanical evidence is dominated by domesticated sorghum (*Sorghum bicolor*), radiocarbon dated to c. 2550–2210 BC. Faunal remains include cattle and goat/sheep. A late third-millennium BC date on the human skeleton excavated in the 2017 season also shows that mortuary activity began early in the site's history, contemporary with domesticated faunal and botanical remains. These initial results indicate the long-term association of the site with pastoralism and agriculture and with environmental change.

Furthermore, there is continual engagement with the local community over their heritage, the impact upon their community from Henry Wellcome's excavations a century ago, the memories and the modern socio-economic context of the current everyday lives. Jebel Moya's continued potential to serve as a chronological and cultural reference point for future studies in south-central Sudan and the eastern Sahel is reinforced.

Spinal pathology in Ancient Nubia.

Samantha Tipper (Durham University), STipper@lincoln.ac.uk

A comprehensive study of spinal disease has not yet been achieved for past Nubian populations, even though it can potentially tell us much about the health, welfare, and occupational and environmental stresses faced in ancient Nubia. This research presents a comparative study of spinal health, providing bioarchaeological results from 515 individuals (12103 vertebrae), from five populations, dating from the Meroitic (300 BC) to the Medieval period (AD 1500). Individuals included in this study are from the sites of Semna South (n=192) and Mis Island (n=157), Gabati (n=80), Hesa (n=60) and lastly Soba East (n=26). Six spinal pathologies were studied, namely spinal fractures, spondylolysis, Schmorl's Nodes, osteoarthritis, spondylosis and clay shoveller's fracture.



A bio-cultural approach was used to interpret the results, using contextual data from settlements and cemeteries. Preliminary results demonstrate an overall true prevalence of (0.6%) for fractures, (1.4%) for spondylolysis, (3%) for Schmorl's Nodes, (8.6%) for osteoarthritis, and (33%) for spondylosis, while no cases of clay Shoveller's fracture were observed. Overall, there was an increase in all pathologies over time, with the highest prevalence rates observed in the Medieval period, as well as a higher prevalence among Hesa and Mis Island compared to the other populations.

The Depths of Deception: Implications of Africanists segregating and neglecting Nile Valley Archaeology in relation to sub-Saharan Africa.

Andrew Jaggs (UCL), andrew.jaggs.09@ucl.ac.uk

This presentation will layout facets of archaeology from the Pharaonic Nile (Sudan & Egypt) circa 5000 BC-AD 500, and their importance to wider African cultural history. Despite UCL publishing *Ancient Egypt in Africa* (O'Connor & Reid 2003) various scholars concerned with the African past do not utilise sources of the Nile Valley, this is despite the abundance of evidence shared across the continent.

One major aspect is regarding the language. Egyptian is popularly framed as most similar to Semitic & Berber (Allen 2013). Based on norms of historical linguistics within Afroasiatic, Egyptian is most similar to West Chadic spoken primarily in Nigeria and further west (Djakonoff 1988). In fact, this is the most numerically popular spoken African language. This ethnolinguistic group was exported as slaves to locales like Trinidad (Warner-Lewis 1991; Law 1977). As asserted by the Egyptian etymological authority Takacs (1999), a chunk of core vocabulary of the oldest attestation can not be etymologised on Afroasiatic grounds but finds analogy within the language families of Bantu and Khoisan.

However, for southern Africans such as the Bantu, it's not just language that is shared but also an array of materials and cultural practices. In fact, "Egypt" and the north-east figure prominently in accounts of origin possessed by different ethnic groups in Africa. Often scholars do not utilise these sources nor the classical sources that speak so glowingly about Africans and their civilisation (Houston 1926; James 1954; Hansberry 1981; Bernal 1987, 2001, 2003).

Ancient water management technology in the hinterland of the Nile valley – A case study from the Kushite site of Musawwarat es-Sufra.

Thomas Scheibner (Archaeological Research and Service, Berlin), thomasscheibner@gmx.de

The site of Musawwarat es-Sufra (c. 6th century BC - AD 4th century), situated c. 25 km SE of the Nile in present-day Sudan, features one of the most complex and earliest water management infrastructures identified to date at a Kushite site. Based on a reconstruction of the ancient ecological conditions in relation to natural water resources, the necessity and importance of the creation of a reliable water supply and a sustainable water management system at sites within the Kushite hinterland of the Nile valley are illustrated. The various components of the ancient water management system at Musawwarat are presented and classified into hierarchic and functional categories and positioned within a chronological framework.



The water management system consisted of two coequal superordinate water procurement and supply systems, represented by two large water reservoirs (*hafair*) and associated water conduits leading into Musawwarat's main architectural complex, the Great Enclosure. Subordinated systems and detached installations so far comprise twelve water basins and multiple channels. They were partially linked to different technologies, such as lime mortar production, garden irrigation, and clay preparation for pottery production. Additionally, also a drainage and water recycling system was in place inside the Great Enclosure.

The technological solutions used for water provisioning and water utilisation are considered with regard to the specific climatic and physiographic conditions and under socio-economic aspects, and the ecological, technological and socio-economic significance of the water management system of Musawwarat are revealed.

Shrouded in Divinity: Roman Egyptian Burial Shrouds from 1st to 3rd Centuries AD.

Anne O'Donnell (UCL/University of Witwatersrand), anne.o'donnell.18@ucl.ac.uk

Identity has become a popular topic in archaeology. Ethnic identities in particular are the focus of the study of Roman-period Egypt through documents and the famous panel portraits. Heretofore, burial shrouds have been passed over as a topic of study in their own right. This study refines the chronology of the shrouds through reference to excavated material and traces the changes in religious iconography and form of composition over the first three centuries of Roman control over Egypt to examine the ways ethnic identities were created and expressed through the shrouds. The form of composition and iconographic motifs were chosen based on region and century to express a particular ethnic identity in a way legible to multiple audiences, as a homogenised form of composition was used to 'legibly write' an individual ethnic identity. This further indicates that the concepts of 'Romanisation' or 'Hellenisation' of Egypt are as problematic here as in other areas under Roman or Grecian influence. As the chronology of Roman period Egyptian and the study of material beyond texts and panel portraits advances, the construction of multiple ethnic identities through material will become more clear.

SESSION 5: WEST & NORTH AFRICA

Continuity and change: new data from the Takarkori pottery assemblage of Early to Middle Holocene Central Sahara.

Rocco Rotunno (Sapienza University of Rome), rocco.rotunno@uniroma1.it

The Early Holocene in North Africa and the Sahara was characterized by climatic fluctuations which affected human occupation, food procurement and resource management. In this regard the excavation and study of the Takarkori rock shelter (SW Libya, Central Sahara) offers a unique context with a long and well-preserved archaeological



deposit. The chrono-cultural sequence of human occupation spans from the Late Acacus hunter-gatherer-fishers (HGF) period up to the Late Pastoral Neolithic (LPN), lasting from approximately 10,200 to 4600 cal BP. The present work focuses on pottery as proxy for the analyses of continuity and change in the material culture in particular in distinguishing between foragers and herders both characterized by complexity and original subsistence strategies. In this way attribute analyses allow the creation of chrono-typologies enhancing our understanding of cultural and social pathways among the Early to Middle Holocene dwellers. Pottery production examination through a "chaîne-opératoire" approach highlights connections, traditions and changes occurring in this extensive ceramic assemblage improving the archaeological knowledge about this pivotal African region.

Communities, economies, and exchange networks in the Moroccan pre-Sahara: new investigations at Tamdult.

Sam Nixon (British Museum), SNixon@britishmuseum.org

Mabrouk Seghir (Institut National des Sciences de l'Archéologie et du Patrimoine, Rabat)

Youssef Bokbot (Institut National des Sciences de l'Archéologie et du Patrimoine, Rabat)

Tamdult is recorded as a fortified town in proximity to a silver mine from the 9th century AD, and was also located on early Trans-Saharan routes between Sijilmasa (Morocco) and Audaghust (Mauritania). Review of past scholarly research at Tamdult's ruins and early Arabic descriptions indicate Tamdult offers great potential to illuminate wider research themes pertinent to medieval North Africa and the trans-Saharan world. This includes understanding the evolution and nature of early pre-Saharan oases, North African and trans-Saharan networks of trade and metallurgical production, and regional and trans-regional migration. This presentation presents the first phases of this collaborative Moroccan/UK research project focusing on Tamdult. In addition to presenting the results of the initial field seasons at the site, the presentation lays out future research plans for the project.

Columbarium of The Site Thubursicum Numidarum (Khamissa-Souk Ahras, Algeria).

Mansouri Farida (University of Algiers), archeofa@yahoo.fr

The historical Thubursicum Numidarum city is located in the state of Souk Ahras in the far east of Algeria. It is considered one of the most important and oldest cities of local origin, established during the period of the Roman occupation. Its name was identified by the Latin writings found during the colonial period but its study was stopped during the French occupation in the 1940. However, a few years ago we started paying attention to this site: it contains various features and architectural elements, most of which have not been studied before, In the course of the repeated fieldwork on the site in successive years, we have found a previously unknown funerary monument. This type of building - known as the columbarium, because it is often accompanied by niches- is very small in the Roman world. It is located in the eastern cemetery of the site and dates back to the Roman period, but we can not give a precise date due to the lack of research and references about this building, which has not been yet studied.



Archaeology in the "Nigerian Field".

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The *Nigerian Field* journal has been in existence for more than 80 years, and is still being published. Its remit is very wide, but it includes archaeology, and a number of notable articles have featured in its pages. These include for example the first indication of the importance of Igbo-Ukwu by G.I. Jones in 1939 and of the Kingdom of Sukur by A. Kirk-Greene in 1960. There have been numerous articles on pottery and iron smelting and other traditional industries, as well as similar related topics. Attention will be drawn to this record, which at the moment is probably little known to those in the field. The journal is being digitised, and will soon be generally available, so this is an apposite moment to bring it to your notice.

The Pathiana Archaeological Landscapes Project (Senegal).

Sirio Canós-Donnay, Incipit-CSIC, s.canos@ucl.ac.uk

Located in southern Senegal, the area traditionally known as Pathiana is one of the most underdeveloped parts of Senegal and one that has been marginalised politically and economically since colonial times. Historically, however, this small (30x40 km) territory has been a key and powerful political actor that has deeply shaped the history of the Senegambia over the last millennium and survived through the rise and fall of at least three different states in the region. Building on my PhD work in the wider Upper Casamance, this project now aims to systematically document the archaeology of Pathiana and to understand how its political power structures changed and adapted over time, with a particular focus on their articulation and materialisation through the landscape.

Polity and Rituality: Conceptualizing the Sacred Centres of Waalo and Dô.

Kevin MacDonald (UCL Institute of Archaeology), kevin.macdonald@ucl.ac.uk

Over the past two decades I have been working with colleagues on the archaeology and oral history of early Mande polities (including that of Dô), and more recently on the Wolof polity of Waalo in Senegal. This research has produced examples of different kinds of power in the historic landscape, both coercive (e.g. military governance, raiding, etc.) and sacred (e.g. sorcerous *connoisseurs*, djinns, etc.). These may be taken as representing alternative strategies for prosperity and political survival in different regions and localities. My question is, do such intangible, supernatural centres of power derive from the early autonomous formation of *ritualities* (sensu Yoffee *et al.* 1999), or is their presence today merely manifesting a subsequent strategy for long term survival by the deposed elites of former polities? I will briefly consider this complex question using the examples of Dô and Waalo and consider how archaeology might articulate with these concepts.



SESSION 6: PUBLIC ARCHAEOLOGY

Perspectives on being an archaeologist: lithic studies and public outreach.

Rosa Moll (University of the Witwatersrand), rosamoll6@gmail.com

Carmen Martín-Ramos (UCL Institute of Archaeology/ Natural History Museum)

Communicating scientific research to the general public is always a challenge. To do so in lithic studies is even harder when having to conceptualise a tool without training to identify and analyse it. In the case of Early Stone Age remains, while they are attractive to researchers, to impart knowledge to the public on their significance as material culture is often complicated. This includes their use as a tool, their making process, and the behavioural and cognitive implications of these. We address here two different case studies where we interacted with the general public and aimed to disseminate the importance of lithic studies in human evolution and African archaeology. Our case studies are based on lithic remains from South Africa and Tanzania, and our own perspectives when discussing our research.

The first case, presented by PhD student at the University of the Witwatersrand, Rosa Moll, introduces her experience when being invited by the Maropeng Museum to give lectures and demonstrate stone knapping to the tour guides and museum staff in the Cradle of Humankind in an effort to expand their expertise. This was part of their training to graduate to national level heritage tour guides, as well as impart more detailed knowledge to visitors. Rosa was working on ESA lithics from the site of Maropeng at the time and guides would often not be able to discuss the research being done in the area.

The second case is presented by UCL PhD student Carmen Martín-Ramos. Carmen was invited to talk about palaeolithic archaeology and human evolution at Olduvai Gorge to a bilingual state school located in a deprived area in southern Spain. Challenges encountered include talking about lithic technology, as well as doing so to students whose English is not their maternal language and coming from broken homes, in a state school with overall high rates of studies dropout.

Environmental and Social Impact assessments of Cultural Heritage Issues: A view from Ilorin, North central, Nigeria.

Bolaji Josephine Owoseni (University of East Anglia), B.Owoseni@uea.ac.uk, owosenibolaji1309@gmail.com

There has been much focus on Environmental Impact Assessments in the actualisation of projects in Nigeria, with less attention on how communities and their heritage are affected. Projects have led to loss of heritage properties and identity of people during construction, urban development and others. In addition, local communities are in most cases not involved in decision-making and policy implementations in relation to their heritage issues, leading to various problems in the long run. This paper will explore the case of Ilorin, a historically-significant city located in North-central Nigeria, showcasing the challenges of heritage management, and proposing we should chart a new course in achieving cohesion and actualisation of heritage-related developments in Ilorin and Nigeria.



Co-creating Modules on Heritage Management in Africa.

Annalisa Christie (University College Dublin), annalisa.christie@ucd.ie
Elgidius Ichumbaki (University of Dar es Salaam)

Heritage management is of growing concern across Africa. It is reflected in the aspirations of the continental initiative Agenda 2063—The Africa We Want -- *Africa with a strong cultural identity, common heritage, values and ethics*. Heritage management is also incorporated in various country specific development strategies and visions. Alongside these aspirations, is a commitment to major infrastructural developments. While these facilitate socio-economic benefits, they have the potential to negatively impact on cultural remains if undertaken without Cultural Heritage Impact Assessments. Proactive archaeological response is a key means of addressing this, however the heritage curricula offered across much of Africa lacks sufficient theoretical and practical training to enable graduates to address heritage management and conservation challenges.

In this paper we present the outcomes of recent Government of Ireland funded collaborative project to develop a joint module on Heritage Management in Africa and elsewhere across the world. If successful, the module could be further developed with other countries across Africa offering scope for transcontinental collaboration – enabling institutions across the continent to learn from each other’s experiences of cultural heritage management, and to offer advice, guidance and training.

Co-creating resources for heritage and tourism in Kilwa region, Tanzania.

Stephanie Wynne-Jones (University of York), stephanie.wynne-jones@york.ac.uk
Sara Perry (Museum of London Archaeology)
Dav Smith (University of York)

This paper reports on the process of co-creation that led to the production of resources for Kilwa’s heritage. As part of the Co-Productions Networks for Community Heritage in Tanzania (CONCH) project, the authors travelled to Kilwa in June 2019. The aim was to work with the Antiquities Division to create resources and capacity that was needed for heritage management and presentation in the region. Here we discuss the activities conducted on that trip, including training in the recording of standing remains for monitoring purposes, social media training for tour guides, and the creation of site brochures for Kilwa and Songo Mnara. The process created some useful outcomes, but is also an interesting case study in the use of co-creation itself. We report on some of the challenges, as well as the interesting outcomes we got from asking open questions and from working together on a common project with Antiquities and with local groups.

Doing archaeology in post-uprising Sudan

Claudia Näser (UCL Institute of Archaeology) c.naaser@ucl.ac.uk

Following 2011, discussions about the implications of the Arab Spring for archaeology and the preservation of archaeological heritage in the region abounded. While early contributions were optimistic, developments on the ground often took a different route. Armed conflict and increased looting impacted (and continue to impact) on the archaeological landscape in great scale. Studying the limits of the democratization process, political scientist Raymond Hinnebusch declared the onset of the Arab winter in 2015. Strikingly, research engagement with the topic by archaeologists virtually ceased at that point, too.

In 2019, the Sudanese achieved their own political Spring. My talk will reflect on the current situation in Sudan and explore a) which implications the political process and the strengthening of civil society has (or does not have) for our field of practice, and b) whether (and how) we as archaeologists can support the aspired democratic process in the country. Optimistic signs marked the preparatory stages of the upcoming field season of the Mograt Island Archaeological Mission (www.mogratarchaeology.com). The printing of outreach material in Khartoum which we had failed to achieve for more than a year, was successfully completed amid the violent unrests in Khartoum in summer 2019. In my talk, I will integrate results of these discussions with findings from pre-uprising surveys among a range of Sudanese publics and a critical analysis of the trajectory in other post-uprising contexts in order to explore the chances (and challenges) of doing archaeology in Sudan in the coming years and reflect on the role which dialogue around archaeological heritage can have in this context.

Closing the Back Way. Heritage Management and Migration in The Gambia.

Kenneth Aitchison (Heritage Management Organization), k.aitchison@heritagemanagent.org

In the last decade, The Gambia has suffered from an appalling drain of people people abandoning the country and seeking to cross the Sahara and then the Mediterranean in the hope of better lives. Many of those that attempt to travel by 'the back way' don't make it – and everyone that has tried has encumbered their families with financial and emotional debts in the process.

Following The Gambia's return to democracy 2017, the European Union has actively engaged with the Gambian government to try to ameliorate the situation – and one of the ways it has done this has been through funding projects to support community solidarity and job creation. The Heritage Management Organization is working with The Gambian National Centre for Arts and Culture to provide better training for heritage managers, with the intention that will lead to better managed sites and monuments that attract and retain sustainable (tourist) income, leading to better and more secure jobs, resulting in a reduction of the appeal of 'irregular migration' through the back way.



SESSION 7: EAST AFRICA

Mapping and monitoring Africa's archaeology using open source satellite imagery, a case study from Islamic Ethiopia.

Nadia Khalaf (University of Exeter), N.R.Khalaf@exeter.ac.uk

The African landscape is set to change dramatically in the coming years, which will have a detrimental impact on the inherent archaeological and cultural heritage elements if not monitored adequately. The current danger to archaeological sites in Africa comes from an increase in urbanisation and infrastructure projects, environmental challenges such as erosion, desertification and flooding, and there is also threats from looting and conflict. This paper explores how open source satellite imagery (Google Earth, multispectral satellite imagery from Landsat and Sentinel-2), can be used as a tool to monitor and protect sites that are already known, with particular reference to Islamic archaeological sites in Ethiopia. The results indicate that open source satellite imagery offers a mechanism for evaluating site status and conservation over time at a large scale, and can be used in other areas of Africa by heritage professionals in the African continent at low cost.

Pulling the wires in the trade networks. Metallurgical techniques diffusion in South-Central and East Africa in the 19th century AD.

Nicolas Nikis (University of Cambridge/ Université Libre de Bruxelles), nicolasnikis@gmail.com

Laurence Garenne Marot (Royal Museum for Central Africa, Belgium).

In the second half of the 19th century, a group of Nyamwezi people moved from the interlacustrine area between lakes Victoria, Kivu and Tanganyika (modern Rwanda, Burundi and Tanzania), and settled in the central part of the Copperbelt mining area (modern south-east of DRC) where they established the Yeke kingdom. Of key importance in the socio-political and economic history of South-Central Africa, this polity had an original socio-political system that combined elements both from the interlacustrine homeland and borrowed from the local populations of the Copperbelt. The Yeke kingdom was further involved in the long-distance trade with Atlantic and Indian ocean coasts. The main export products were ivory and copper, both locally available. Interestingly, Yeke copper production techniques are also a combination of manufacturing processes of different origins: borrowed smelting process and introduction of new techniques such as wire drawing.

According to historical sources, wire-drawing used to make coiled and wound wire bangles would have been imported from the interlacustrine area where a concentration of comparable tools and manufacturing processes had been observed. Wire-drawing processes showing comparable tools and methods have also been recorded at various places in the area stretching from the south Lake Victoria to the north of Lake Malawi. A review of the historical evidence strongly suggests this distribution is related to the extension of the Nyamwezi trade in order to produce wound wire bangles used in some of the exchanges. This study may thus illustrate how exchange networks can favour the spread of manufacturing techniques and provides additional perspectives to understand techniques diffusion in the past.



The photographic collection of E J Wayland from eastern and southern Africa, July - September 1929.

Ceri Ashley (British Museum), CAshley@britishmuseum.org

In 1929 E J Wayland, the keeper of Ethnography at the British Museum, travelled to southern Africa to attend the British Association for the Advancement of Science meeting where Gertrude Caton-Thompson presented results of her work at Great Zimbabwe. He subsequently travelled around southern Africa, then moving to Tanzania and Kenya where he visited historic sites and recorded craft specialists working. This paper reports on the collection of photographs he took during his journey, and reflects on the potential of this archive to explore the history of archaeology and museum collecting.

SESSION 8: SUBSISTENCE

Where are all the fish bones? First results from East Pemba Maritime Cultural Heritage Project.

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Shadia Taha (University of Cambridge)

Eréndira Q. Morales (Northern Illinois University)

Abdallah Ali (Department of Museums and Antiquity, Zanzibar)

Abdallah Mkumbukwa (State University of Zanzibar)

Laura Basell (University of Leicester)

This paper will synthesise the initial results from the RftD project on East Pemba (Zanzibar, Tanzania) that took place in July and August 2019. The project linked archaeological survey and excavation of five abandoned 19th century coastal towns (Swahili mii) with a comprehensive study of the contemporary maritime industries and how they operated within the social and economic structures of East Pemba. The project examined maritime cultural heritage and how it could be used to sustain reef ecologies in the face of modern fishing technologies and the increased designation of marine protected areas. The project looked at fish-distribution networks, and puzzled over the observation that the 19th century towns, while containing large quantities of shell fish, seemed to have consumed very little fish within the settlements. Where have all the fish bones gone? One answer is that these towns were food-producers for an export market to supply the plantation economy of the Swahili coast. Ironically, similar networks may operate nowadays, but the plantations have been replaced by tourist hotels that require significant supplies of fresh fish.



Fish bones from Bolondo (DR Congo).

Laurent Nieblas-Ramirez (Université Libre de Bruxelles), l.nieblas.ramirez@gmail.com

The presentation will be based on the results of the analysis of the faunal remains excavated by the team of Hans-Peter Wotzka in Bolondo, a Nganda (fishing village) on the Tshuapa river in the DR Congo. Thanks to a systematic sampling of the two trenches excavated in 2016, the material coming from the site is unique for the region both in terms of quantity (more than 7500 bone fragments) and diversity. We'll have a look at what the faunal remains can tell us about the occupation of the site, the possible fishing techniques that were used and about the link between Bolondo and inland sites. In order to do so, we'll show how a multidisciplinary approach, combining historical sources like colonial accounts and studies, anthropological sources, archaeological data and more zoological sources can be mobilised in a context where there is no archaeozoological comparisons available yet. As a result, the analysis allows us to depict a Nganda mainly turned towards the flooding zone and not so much on the open water of the Tshuapa river, where fish were likely exported inland against other products including mammal meat, and that was perhaps occupied differently by different groups at different periods

Diffusion of Cotton in Northeastern Africa and Arabia: New Morphometric and Quantitative Data.

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The study of botanical remains found in archaeological contexts in northeastern Africa and the Arabian Peninsula during Antiquity shows the presence of new tropical crops. Some of them are being acclimatized in this area during the 1st millennium BC-1st millennium AD. Cotton (*Gossypium spp.*) appeared at that time and probably played an important role in the textile craft alongside linen and wool. Evidence of cotton is found in form of seeds, pieces of textile and it is sometimes clearly mentioned in the Greek and Latin texts. Cotton could correspond to any of the two Old World domesticated species circulated at that time around the Indian Ocean: *G. herbaceum*, domesticated in Africa and *G. arboreum*, coming from the Indian sub-continent. This study explores the potential of traditional and geometric morphometrics analyses on cotton seeds in order to get new taxonomical data using modern seeds as well as archaeological seeds found in Sudan (Mouweis) and Saudi Arabia (Madâ'in Sâlih). Morphometry uses data on seed contours, shapes and sizes to compare seed specimens with each other and to refine identifications, in the case of cotton, between cotton species. The morphometric analysis combined with a large set of radiocarbon dating give new data on the diffusion of cotton across Africa and Arabia during Antiquity.



New evidence on the development of pearl millet and fonio economies in Nigeria: archaeobotanical results from the Nok region.

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The Nok Culture existed from the mid-second millennium BCE to around the turn of the Common Era in Central Nigeria, with settlement activities peaking during the Middle Nok phase between 900 and 300 BCE. Towards the end of this phase, the number of settlements considerably decreased; according to radiocarbon dates, only very few Late Nok sites have been found in the research region (Franke & Breunig 2014; Franke 2016). With the beginning of the Common Era, archaeological sites with Nok attributes disappear completely. New ceramic inventories, totally different in decoration, style and clay composition, and the absence of terracotta figurines (Beck 2015; Franke 2015), in combination with a higher diversity of crops, point to a cultural change, possibly related to shifting environmental conditions.

The present research looks at flotation samples derived from the Nok project lead by Peter Breunig from Frankfurt University. The successful application of a flotation programme during the 11 field seasons (from 2006 to 2017) has provided plant macro-remains from hundreds of samples dating from the mid second millennium BC to the second millennium AD. The most widespread crop on sites dating to the Nok period (1500-400 BC) is pearl millet (*Pennisetum glaucum*), the likely staple cereal of West Africa since the Neolithic. However, from 300 AD, fonio (*Digitaria exilis*) represents the most common plant used in the area. These data highlight the potential for future work and exploring the still patchy archaeobotanical database of sub-Saharan Africa.

